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THE QUALITY AND PROFESSIONALISM OF THE ACQUISITION WORKFORCE

REPORT

OF THE

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OF THE

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LETTER OF TRANSMITTAL

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ARMED SERVICES,
Washington, DC, May 8, 1990.

Hon. LES ASPIN,
Chairman, Committee on Armed Services
House of Representatives, Washington, DC.

DEAR MR. CHAIRMAN: Attached is the report of the Investigations Subcommittee on the Quality and Professionalism of the Acquisition Workforce. This portion of the report consists of a very detailed compilation and review of the status of the existing acquisition workforce. Characteristics of various segments of the workforce in terms of levels of education and training, experience, tenure in their positions, and in some cases age and average compensation are documented. In addition, an explanation of the existing acquisition and personnel organizations as they relate to the acquisition workforce are analyzed.

Due to the length of this document we intend it to be a reference document of limited distribution. A detailed summary of these findings as well as our conclusions and recommendations regarding improvements in the acquisition workforce will be included in the committee's report on legislation proposed to improve the acquisition workforce.

This report was developed largely through the efforts of Dr. Jim Edgar, American Political Science Association Fellow. Dr. Edgar, while on assignment to the Armed Services Committee, collected the raw data from the services and compiled the report. Mrs. Julia C. Denman, Investigative Staff, and Mrs. Colleen Preston, General Counsel, provided valuable editorial and technical assistance.

I would appreciate your approval of the report so that it may be printed.

Sincerely,

NICHOLAS MAVROULES, *Chairman.*

Enclosure.

Approved for printing:
LES ASPIN.

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EXECUTIVE SUMMARY

CHAPTER I—INTRODUCTION

There are three distinct elements within the Department of Defense Acquisition System: (1) the policies, procedures, and processes which govern the operation of the acquisition system; (2) the organization of the resources (people, management structure, capital, and facilities) that execute the policies and procedures; and, (3) the people within the organization that make the system work. Although it has been recognized in studies and commissions (including the First and Second Hoover Commissions in 1949 and 1955, the Fitzhugh Commission in 1970, the Commission on Government Procurement in 1972, and the Packard Commission in 1986) for over thirty years that the quality and professionalism of the defense acquisition workforce should be improved, the great majority of reform efforts have focused on changes in policies and procedures, or organization. Acquisition workforce issues have not been ignored, either by the executive branch, or Congress, as is evident by the legislation adopted and administrative changes that have occurred, primarily over the last five years. Yet most remain unconvinced that enough has been done.

Before considering the adoption of any of the myriad proposals for improvement of the acquisition workforce, the Committee on Armed Services believed it crucial to conduct an in-depth analysis of the state of the acquisition workforce—including an analysis of the qualifications and professionalism of acquisition personnel as well as a review of various DOD efforts of the department to establish and manage the career development of the acquisition workforce. It is hoped that through this effort a better assessment of cause and effect can be made—providing greater assurance that changes adopted will in fact bring about the desired result. In making that assessment, the report will attempt to answer four major questions:

(1) Are the Services appointing Program Managers, Deputy Program Managers, and Contracting Officers with the experience, education and training required by law and regulation; and are Program Managers being retained in their positions the mandatory four-year minimum?

(2) Is there a career program structure to develop qualified and professional contracting and program management personnel—both civilian and military?

(3) Is there an appropriate mix of military and civilian personnel within the workforce?

(4) What impediments exist that must be overcome in order to develop a quality, professional workforce, and how can that be accomplished?

The answers to the questions posed will be developed in the report first by setting the stage within which the key acquisition players operate—who are these people, what is their function or role, how are they selected, and where do they fit in the organizational hierarchy (Chapter II). Because personnel management plays such a crucial role in the development and selection of the acquisition workforce, Chapter III sets the stage in terms of personnel management—the personnel organization, how that organization interfaces with the acquisition organization, what personnel policies relate to the acquisition workforce, and what automated information systems are being utilized to manage personnel. Chapters IV through VI will provide the data developed on the characteristics of the acquisition workforce—moving from the broadest segment—the acquisition workforce as a whole, to contracting officers and Program Managers specifically. Chapter VII will highlight the issue of the professionalism of the acquisition workforce, with particular emphasis on education and training. Chapters VIII and IX deal with two vexing issues relating to the workforce—the mix of military and civilians, and compensation.

While there is certainly no agreement on many of the terms of reference used by the acquisition community, for purposes of this report we attempted to utilize the most commonly accepted definitions. Accordingly, the "acquisition process" is used when referring to the process that begins when the agency has established its needs, and includes the articulation of the user's needs in terms of hardware solutions, validation of the requirements through the planning, programming and budget process, concept exploration, demonstration/validation, full-scale development and production, deployment and support. The "procurement process" is a sub-set of the acquisition process and includes the development of a long-term plan for selecting a source or sources, translating the government's needs into a request for proposal from industry, selection of a contractor, and administration of the contract. The "acquisition workforce" refers to military personnel in acquisition assignments and to civilian employees who are serving in the competitive service in the series of positions designated under Draft DOD Manual 5000.52-M as acquisition positions. In judging the "quality and professionalism" of the workforce, we are forced to rely on measurable characteristics such as level of education, training, and experience, while attempting to assess the traits of professionalism that are not subject to quantification.

It is important to note at this juncture that the data utilized in this report was developed, in many cases from raw statistical data, using existing data bases within the Department of Defense, and data and information available from a number of sources both within and outside the government. Conclusions drawn from the data must be viewed with the knowledge that there are problems with the data bases, either because the information is not pure because of lack of agreement on definitions used, or the data system does not track the information gleaned in the form utilized. The data utilized was collected from January to June 1989, and accordingly does not reflect recent changes made by the Department.

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CHAPTER II—ACQUISITION ORGANIZATIONS

Acquisition functions in the DOD are conducted by the Office of the Secretary of Defense, the three military services, and several defense agencies. The Under Secretary of Defense for Acquisition (USD(A)) is responsible for supervising DOD acquisition and establishing acquisition policy and is given authority to direct the Service Secretaries and agency heads with regard to matters for which the Under Secretary has responsibility.

Each of the services organize their acquisition functions differently (reflecting historical and mission differences), although there are some general characteristics shared by each. Program Management has been primarily conducted through the procurement or "systems" commands, although the Department is in the process of implementing a new Program Management structure that will circumvent the major procurement commands and place Program Managers under a Program Executive Officer that reports directly to the Service Acquisition Executive. Most Program Management organizations are either matrix or project organizations. Matrix organizations—those in which the Program Manager is supported by certain core offices assigned exclusively to the Program Manager, and by organizations representing the various functional disciplines that are matrixed (can be collocated or physically separate) to the Program Manager, are the norm. Project or program organizations, in which one finds all the necessary functional resources in a self-contained, vertically arranged organization are also used, but not often.

Contracting organizations support the weapons system acquisition process and provide field level support at all organizational levels. Systems contracting is centralized, and has typically been primarily conducted within a major procurement command in the service, such as Air Force Systems Command, or Army Materiel Command. At the operating levels contracting is conducted by directorates, divisions, or other organizational entities who work for the commander of the installation or other organization that the office is within. The great majority of contracting organizations are engaged in field level contracting, although the majority of people are involved in major systems acquisition.

Contracting authority flows from the Service Secretary to the Heads of Contracting Authority, typically commanders of the various major commands within the service, and from them it is further delegated. Although contracting authority typically flows parallel to the chain of command, responsibility for contract execution is through the chain of command.

Despite these similarities, there are distinct organizational differences between the services and DLA. The variety in organizational structure between the three services is reflected in the difference in number of contracting organizations world-wide: the Army has over 250, the Navy including Marine Corps over 900, and the Air Force over 200.

CHAPTER III—PERSONNEL MANAGEMENT—ORGANIZATION, POLICIES, AND DATA SYSTEMS

To understand the role of the Program Manager and contracting officer, and to evaluate the challenges confronting the Department in the development and management of a professional acquisition workforce, requires a thorough understanding of the personnel management organizations, policies, and systems which collectively impact the development and operation of this workforce, as well as the underlying distinctions between military and civilian personnel.

MILITARY AND CIVILIAN PERSONNEL MANAGEMENT DISTINCTIONS

Military officers exist to organize, equip, train, and direct military forces. They first and foremost are members of the military officer corps charged with carrying out their service's military mission. Civil servants, on the other hand, perform specific technical functions for the government similar to those found in the private sector. Civilians hold no personnel rank or distinction, since their authority resides only in the position they occupy. Despite the fundamental distinctions in these two different types of DOD personnel, in recent years there has been a significant narrowing of the technical skill levels between civilian and military personnel and in some cases military officers and civilians perform the same functions.

As a result of these basic differences, the personnel management systems differ. While both systems have the same career phases—recruitment or accession, training, career management, and retirement or separation, there are pervasive differences throughout each phase. Recruitment for the military is done centrally, for civilians locally. Continuous training and professional development are ingrained in the military system while in the civilian system these are often difficult to obtain. Career management is centralized in the military, whereas civilian hiring is typically done at the local level and civilians are almost solely reliant on individual initiative in managing their careers. Retirement for the military is based on the "up or out" policy with retired members subject to recall to active duty in time of national emergency. Civil service retirement is based on the precept of inability to continue to perform the job satisfactorily.

OFFICE OF THE SECRETARY OF DEFENSE—PERSONNEL MANAGEMENT ORGANIZATIONS AND POLICIES

The Under Secretary of Defense (Acquisition) is responsible for the training and career development of military and civilian acquisition personnel. Within his office those functions are split between the Assistant Secretary of Defense (Production and Logistics) for contracting personnel, and the Director for Program Integration for Program Managers. However, there is only one individual, assigned to the ASD (Production and Logistics), responsible for policy formulation, guidance, and monitoring the entire DOD acquisition workforce.

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The Assistant Secretary of Defense (Force Management and Personnel) is responsible for personnel management systems, career development, compensation, training, and the remaining traditional personnel management functions. In addition, two other organizations, the Defense Systems Management College and the Civilian Career Board Structure, play important roles in the implementation of acquisition personnel career development.

Policy guidance with respect to a career program for certain segments of the acquisition workforce has been provided by the Office of the Secretary of Defense in some form since the 1960's for contracting personnel and for Program Managers, and culminated in 1988 with the issuance of DOD Directive 5000.52, "Defense Acquisition Education and Training Program." DOD Directive 5000.52 merged the existing contracting and Program Management career program guidance and expanded its scope to other personnel within the acquisition workforce as well as to the Reserve components.

DOD policy with respect to contracting personnel began in July 1961 with the adoption of DOD Directive 1430.6 which set forth training requirements for both civilian and military personnel. By 1966, this had been replaced by DOD 1430.10-M-1 which established a civilian contracting career program with mandatory training, a central registration and referral system, career counseling, and a top-level career board structure. In 1986, with the adoption of DOD Directive 5000.48, the Department established experience, education, and training requirements for contracting, quality assurance, and business and financial management positions at four levels of job complexity. DOD Directive 5000.48 was unique in that for the first time since the early 1960s it applied the same training and education requirements to both military and civilian personnel, as well as to civilians in the competitive and excepted service schedules A, B, and C and in the Senior Executive Service.

Originally, DOD established its basic policy on the qualifications, training, tenure, and authority of Program Managers (there referred to as Systems or Project Managers) with the promulgation of DOD Directive 5010.14 in 1965, which was replaced by DOD Directive 5000.1 in 1971. Subsequently, DOD established its policy for the selection, training, and career development of Program Managers in DOD Directive 5000.23, issued November 26, 1974. That directive, updated in 1986 to reflect legislative requirements for Program Managers, also required the establishment and maintenance of appropriate career fields for military and civilian acquisition managers (people who would eventually be subject to selection as Program Managers).

There are currently three DOD Directives affecting the career development, training, and education of acquisition personnel (both civilian and military). DOD Directive 5000.1 (September 1, 1987) establishes the policies for managing defense acquisition programs and the streamlined acquisition organization structure (consisting of Senior Acquisition Executives (SAE), Program Executive Officers (PEO), and Program Managers) for major programs. DOD Directive 5000.52, issued August 12, 1988, and DOD Manual 5000.52-M (draft) and DOD Instruction 5000.52 (draft), consolidated and expanded the policy guidance on the acquisition workforce career de-

velopment program contained in DOD Directives 5000.23 and 5000.48, DOD Instruction 5100.58, and DOD Manuals 1430.10-M-1 and 1430.10-M-2. The DOD Instruction and Manual are still in the coordination process and may be revised to reflect actions taken as part of the Defense Management Review.

Responsibility for management of both civilian and military personnel in each of the Military Departments rests with the Service Secretaries, assisted by the Assistant Secretaries for Manpower and Reserve Affairs. The role of the Secretariats is essentially to exercise civilian control by establishing broad policy and exercising oversight of the activities of the military staffs who (1) formulate personnel policy and program proposals based on military expertise for review and approval by the Secretariat and (2) translate the broad policy decisions of the civilian leadership into specific directives for the services' field activities to implement.

ARMY PERSONNEL MANAGEMENT ORGANIZATIONS AND POLICIES

In the Army the Deputy Chief of Staff, Personnel (DCSPER) plans and supervises the policies and procedures for both military and civilian personnel through his directors for civilian and military personnel.

Eight operating Agencies report to the Army DCSPER, including the Total Army Personnel Command (PERSCOM), which is responsible for the integration, management, and oversight of the Total Army personnel function. Both military and civilian personnel management functions are combined within PERSCOM, but remain in many respects distinct since they are managed by different directorates within the command. Within the Army in the field, both the military and civilian chiefs of personnel work for the commanders at their respective levels, executing military and civilian personnel policy.

For management of Army military officers, each career field or discipline (both Branch and Functional Area) has a Proponent who is responsible for the career development of the military officers within that function or discipline. Officer personnel have traditionally been managed by branch—for example, armor, infantry, quartermaster, and ordnance, and are generally assigned within that branch within their functional specialty, such as contracting. After spending about eight years becoming "branch-qualified" officers may be "dual-tracked" to positions in their functional area, but outside their branch.

Within the Army civilian career management system, primary responsibility for policy formulation is centralized in civilian personnel (although the functional managers are allowed to make recommendations), while program execution remains with the commander and his supporting civilian personnel organization. The Functional Chief (either an Assistant Secretary, Deputy Chief of Staff, or commander of one of the major commands) is assisted in his civilian career management typically by the highest ranking civilian in the functional area. Civilian career paths are institutionalized through the Army Civilian Training, Education and Development System (ACTEDS), which establish a systemic approach to technical, professional and leadership training and development.

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NAVY PERSONNEL MANAGEMENT ORGANIZATIONS AND POLICIES

The Deputy Chief of Naval Operations (Manpower, Personnel, and Training) is dual-hatted as the Chief of Naval Personnel. In this capacity he is responsible for military personnel matters, which are managed for him by the Naval Military Personnel Command. He is advised on civilian personnel matters by the Naval Civilian Personnel Center, which also provides civilian personnel guidance and services to Navy subordinate commands.

Policy guidance for Navy civilian personnel matters flows through the Deputy Assistant Secretary for Civilian Personnel Policy and Equal Employment Opportunity, who is responsible for the development of all civilian personnel policy for the Navy Department—including the Marine Corps and Office of Naval Research. The Directors of Civilian Personnel Programs for each Echelon 1 and 2 command in the Navy report to their respective commanders, providing advice regarding the development and implementation of command-wide civilian personnel policy. Navy and Marine Corps shore civilian personnel offices are found at the headquarters and field activity levels to provide on-site personnel-related services.

The Naval Military Personnel Command is organized to provide centralized personnel management of naval enlisted and officer personnel. In addition, support is provided to the Operating Forces (such as US Naval Forces Europe) from separate personnel offices, and at sea through a personnel specialist and, in most cases, a collateral duty personnel officer assigned to ocean-going ships and units.

The Navy officer corps is organized into three categories: unrestricted line officers who are associated with operations in the three fighting arms of the Navy, restricted line officers who are engaged in direct support operations (e.g. Aviation Maintenance Duty Officers), and staff corps officers who perform specialized tasks such as contracting, medical, legal, and other functions. Navy personnel management of officers is complicated by the need to maintain shore billets for personnel rotating from sea duty.

The Navy has followed a traditional, decentralized approach to personnel management of its civilian employees with most career program development policies delegated to the SYSCOM headquarters. Primary responsibility for program execution resides with line or functional managers who approve plans and policy with the servicing civilian personnel office providing support and administration.

AIR FORCE PERSONNEL MANAGEMENT ORGANIZATIONS AND POLICIES

In the Air Force, the Deputy Chief of Staff, Personnel, supervises policy and procedures for both military and civilian personnel although the Deputy Chief of Staff, Plans and Resources, also has personnel management responsibilities in that he is responsible for

the sizing and military mix of the Air Force. As such, the DCS, Plans and Resources develops and administers policy for the allocation of active military and civilian manpower resources throughout the Air Force.

The two most important offices in managing the Air Force workforce are the Director of Civilian Personnel and the Assistant Deputy Chief of Staff for Military Personnel. Reporting to the Director of Civilian Personnel, the Air Force Civilian Personnel Management Center (AFCPMC) is responsible for centralized Air Force civilian career management. The Air Force Military Personnel Center—commanded by the Assistant Deputy Chief of Staff for Military Personnel—is responsible for the centralized management of the military force, both officers and enlisted. Outside of AFMPC and AFCPMC, there are military and civilian chiefs of personnel who work for the commanders at each organizational level. The execution of personnel policy is shared between the traditional base and field command personnel organizations and the centrally managed functions at AFMPC and AFCPMC.

For the military, force-level planning or modeling, Professional Military Education, assignments and promotions are centralized. The Air Force has a separate and distinct career path for officers in several specific functional areas. For example, there is a specific career path for Acquisition Contracting/Manufacturing Staff Officers (65XX), as well as the three primary sources of military Program Managers: Scientific (26XX); Acquisition Program Management (27XX); and Development Engineering (28XX). Management of military officer careers in acquisition are complicated to some extent by the Air Force's effort to maintain rated officers in the acquisition career field, while still maintaining their eligibility for flight pay.

For managing its civilian workforce, the Air Force has established a structure and management philosophy that provides for career development in a centralized mode, with the heavy involvement and influence of the senior leadership in that functional area. The traditional, routine personnel management functions remain within the purview of the local civilian personnel community and commander.

DLA Personnel Management

In the Defense Logistics Agency, staffing and personnel management of military personnel is provided by the Army, Navy, Air Force, and Marine Corps. Management of DLA civilian personnel is shared between the DLA Staff Director for Civilian Personnel, who provides overall guidance and establishes DLA-wide civilian career programs, and the appropriate Principal Staff Elements (such as contracting or quality assurance) who provide leadership in developing civilian career programs and serve as the component functional chief for DOD-wide civilian career programs.

PERSONNEL DATA SYSTEMS

An effective automatic data processing (ADP) system and management information system (MIS) are critical to managing the acquisition workforce in the most effective manner. ADP systems are

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necessary for the day-to-day operation of a personnel management system (e.g. assignments, promotions, and training). An MIS is a necessary tool for planning, coordinating and controlling the workforce.

DOD has been inhibited in managing the acquisition workforce by several factors relating to its ADPS and MIS: inadequate ADP systems; failure to integrate the various personnel systems within the services (each of the services has *at least* two data systems); failure to use common criteria in defining who is in the procurement workforce; and lack of standardization in reporting data elements, thus making it difficult for the Under Secretary of Defense for Acquisition to judge compliance with workforce policies.

CHAPTER IV—THE ACQUISITION WORKFORCE

As noted in Chapter One, there has always been a problem identifying the categories of personnel considered to be in the acquisition workforce. Regardless of the definition used, however, there has undeniably been a gradual expansion of the jobs and functions that are included within the scope of the acquisition workforce. We have utilized the latest definition upon which data are based, the definition included in Draft DOD Manual 5000.52-M (Dec. 13, 1988). That definition basically establishes two premises for including a person in the acquisition workforce—that the individual is in a "core" or basic occupational series that is inherently "acquisition" in nature regardless of the person's organizational assignment; or, that the individual is in a "shared" occupational series, such as engineering or budget and financial management, that encompasses some acquisition personnel, in which case the individual is presumed to be operating in an acquisition function only when assigned to an acquisition organization.

CIVILIAN ACQUISITION WORKFORCE

Four key factors about the civilian acquisition workforce are worth noting (see Exhibits IV-1, IV-2 and IV-3): (1) the Navy has the largest percentage of the civilian acquisition workforce (42 percent); the Army is next with 25 percent; then the Air Force with 20 percent, and finally, DLA with 13 percent; (2) seventy-three percent of the DOD civilian acquisition workforce is classified in a "shared" series, and are thus not considered acquisition personnel unless assigned to an acquisition command; (3) there are significant numbers of personnel in core acquisition disciplines assigned (presumably to perform acquisition functions) to non-acquisition commands; and, (4) in no case does the acquisition workforce constitute a majority of the civilians assigned to the acquisition or procurement commands (in the services, they are about one-third of all the civilians assigned).

EXHIBIT IV-1

CIVILIAN ACQUISITION WORKFORCE TOTAL WORKFORCE

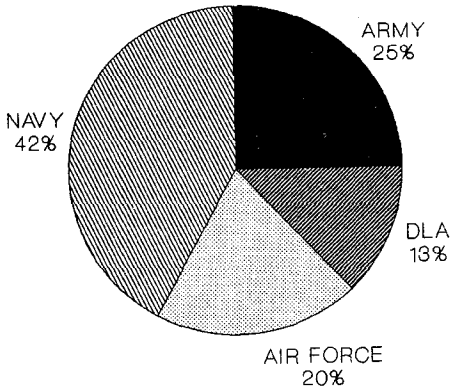

EXHIBIT IV-2

PERCENT DISTRIBUTION OF ACQUISITION CIVILIANS

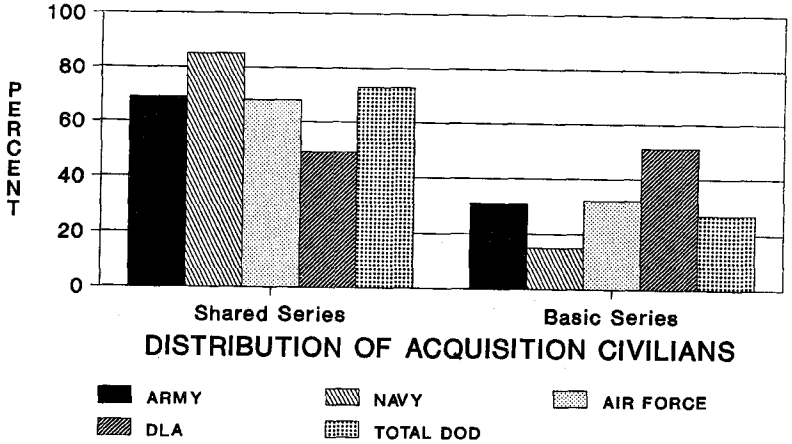

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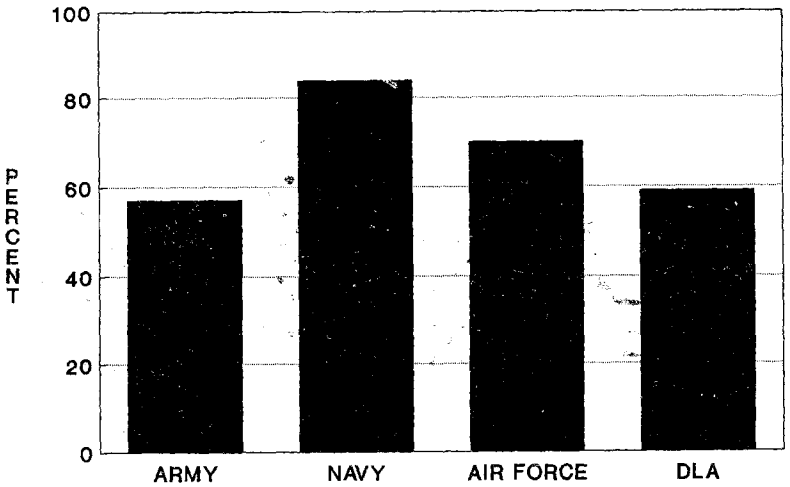
EXHIBIT IV-3

BASIC CIVILIAN ACQUISITION SERIES PERCENT ASSIGNED TO ACQUISITION COMMAND



MILITARY ACQUISITION WORKFORCE

With respect to the military (see Exhibits IV-7 and IV-8): (1) the Air Force has the largest percentage of the total military acquisition workforce (63 percent), followed by the Navy, with 23 percent, and the Army with 14 percent; (2) eighty percent of the Army military acquisition workforce are in the basic series, compared to the Air Force, with 53 percent, and the Navy with 34 percent; (3) the majority of military in specialty codes considered to be core acquisition positions are assigned to the service procurement commands—Army, 54 percent; Navy, 72 percent; Air Force, 61 percent; and, (4) of the military officers assigned to acquisition commands, acquisition officers constitute 51 percent in the Air Force, 50 percent in the Navy, and only 20 percent in the Army.

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EXHIBIT IV-7

ACQUISITION OFFICERS PERCENT OF TOTAL

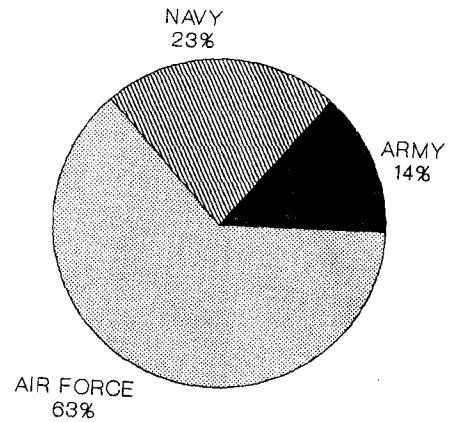
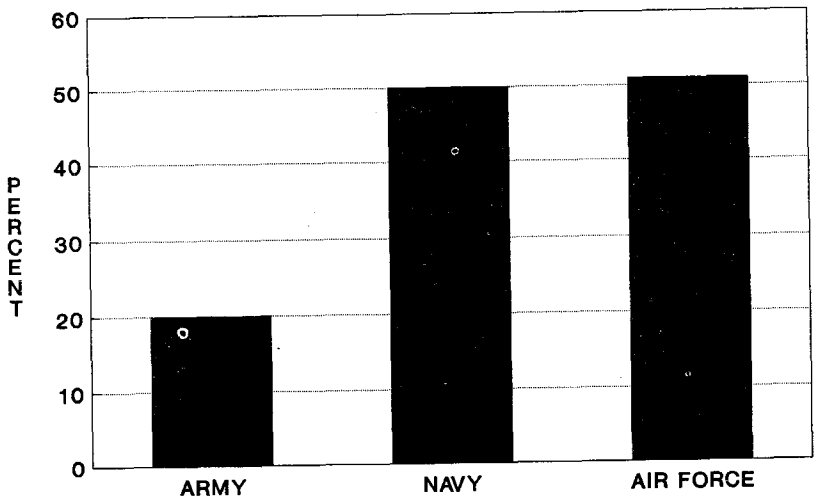


EXHIBIT IV-8

PERCENT OF ACQUISITION OFFICERS IN ACQUISITION COMMANDS



COMBINED ACQUISITION WORKFORCE

As shown in Exhibit IV-9, the Navy has the largest combined military officer and civilian acquisition workforce with 86,015 personnel, followed by the Army at 51,049 and the Air Force at 48,955. Of that total, 96 percent are civilians in the Navy and Army, and 82 percent are civilians in the Air Force. With the addition of the 27,049 civilians in the Defense Logistics Agency, the grand total for the department is 213,068, 93 percent of whom are civilians.

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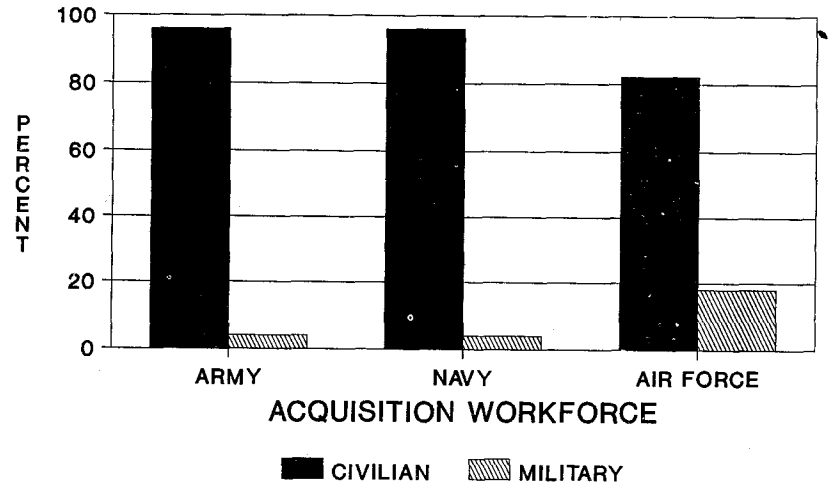
EXHIBIT IV-9

ACQUISITION WORKFORCE
PERCENT CIVILIAN/MILITARY



CHAPTER V—THE CONTRACTING WORKFORCE

MILITARY AND CIVILIAN CONTRACTING WORKFORCE—CHARACTERISTICS

The contracting workforce, a core element of the acquisition workforce, is composed of both military and civilian personnel. The civilians are with minor exception identifiable by their occupational series—GS-1102. With respect to the military it is a much more difficult process because of the practice of dual-tracking—many military officers are not captured in the data system because they carry the contracting skill identifier as their secondary career field (with Infantry, for example, as the primary designator).

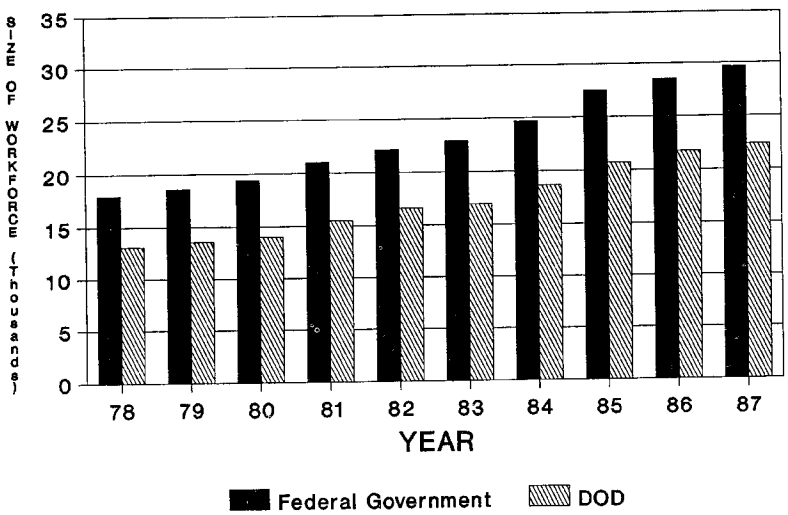
Civilian Contracting Workforce

The civilian contracting workforce consists of people in six specialties within the GS-1102 personnel series: contract specialist; contract negotiator; contract administrator; contract termination specialist; contract price/cost analyst; and procurement analyst. DOD has historically employed about 75 percent (22,000) of the 30,000 GS-1102 series personnel in the federal workforce. The GS-1102 workforce in DOD grew 71 percent from 1978 to 1987, as compared to a 49 percent rate of growth in that same workforce in non-defense agencies (Exhibit V-1). The average age and grade is slightly lower (41.5 and 10.57 respectively) than the government-

wide average (41.95 and 10.64), but the DOD workforce is slightly better educated (52 percent college graduates as opposed to 51 percent government-wide).

EXHIBIT V-1

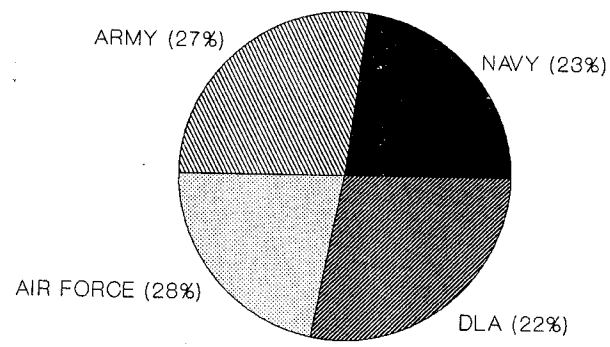
GROWTH OF GS-1102 WORKFORCE



Within the Department, the Air Force has the largest portion of the civilian contracting workforce (28 percent), followed by the Army (27 percent), the Navy (23 percent), and DLA (22 percent) (Exhibit V-4). Until 1984 workforce size increased at a slower pace than the increase in dollars obligated, but since then has surpassed that rate of increase.

EXHIBIT V-4

DEPARTMENT OF DEFENSE GS-1102 WORKFORCE (1988)



The services have the same relative grade distribution within the workforce, while DLA's is somewhat lower, and "other DOD activities" have a significantly greater number of people at the more senior level. The Army currently has the highest average grade, with DLA the lowest. Over time, the Navy has had the highest average grade (10.64), followed by the Air Force (10.58), the Army (10.48), and then DLA (10.46) (Exhibit V-11). Average age and length of service have been decreasing as the workforce size has increased (Exhibits V-12 & V-13).

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EXHIBIT V-11

GS-1102 AVERAGE GRADE

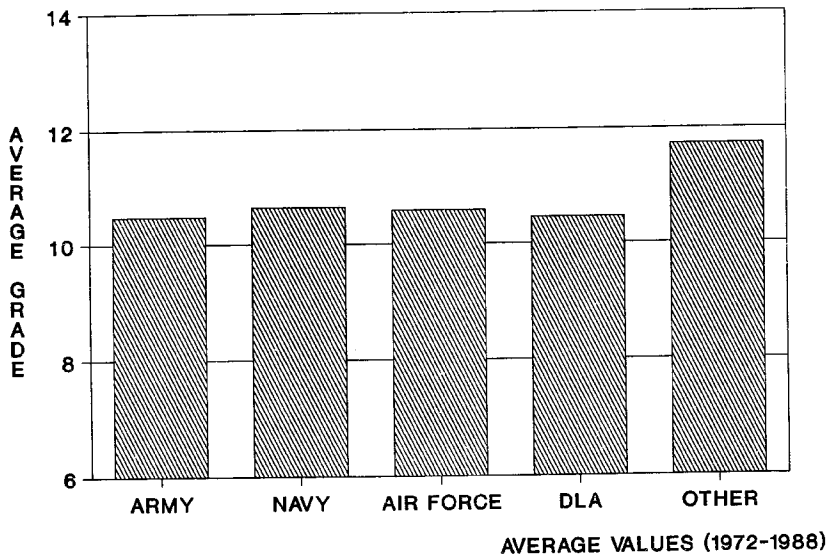

EXHIBIT V-12

AGE OF CIVILIAN CONTRACTING WORKFORCE

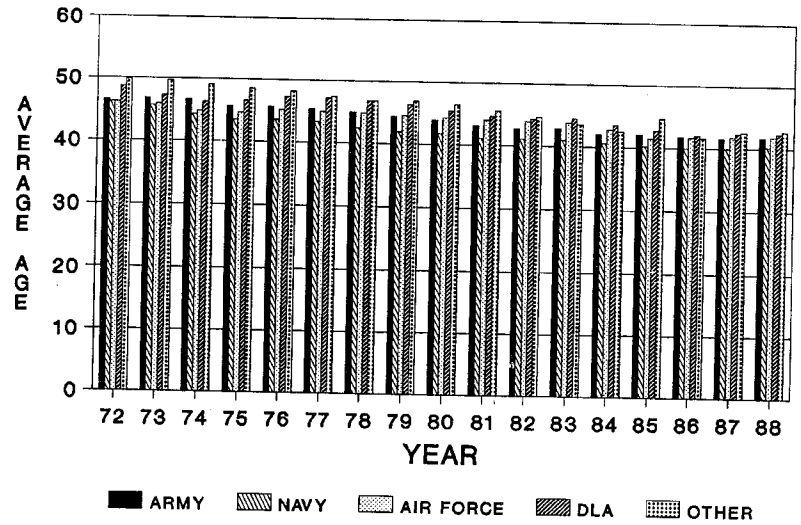

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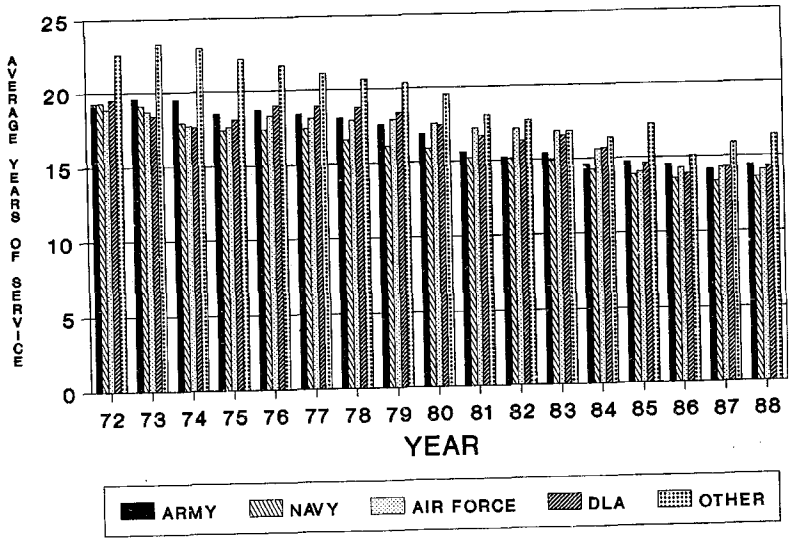
EXHIBIT V-13

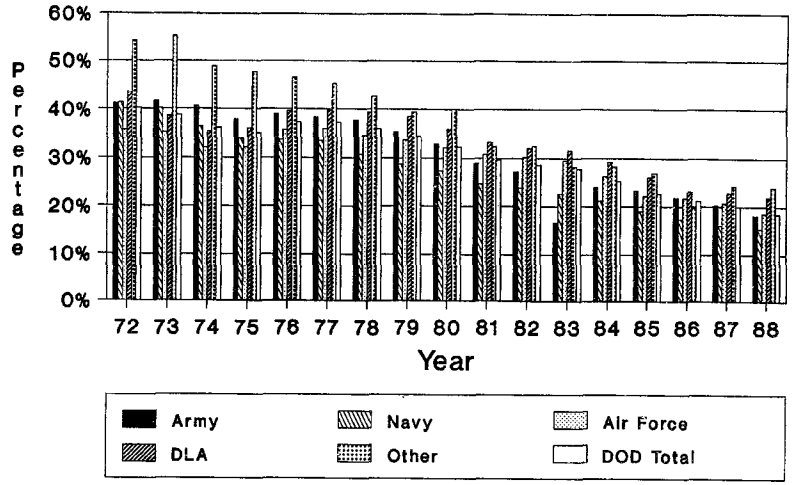
CIVILIAN GS-1102 LENGTH OF SERVICE



In terms of educational level, the Air Force leads the way, with both DLA and all the services except the Navy showing steady progress towards a better educated workforce (Exhibit V-15). It is also significant to note that the voluntary quit rate for GS-1102 series increased over 60 percent between 1976 and 1986.

EXHIBIT V-15

Civilian Retirement Eligibility (In Percentages)



Military Contracting Workforce

Among the services, the Air Force has consistently had the largest proportion of the military personnel in contracting with 58 percent in 1988, followed by the Navy with 22 percent and the Army with 20 percent (Exhibit V-19). The Air Force also has the largest number of officers in contracting at the entry levels (the Army does not even assign officers in contracting at the rank of lieutenant). Because it brings officers in at a lower rank, the Air Force has the youngest average age (followed by the Navy, then Army), and the fewest years of service. Approximately 50 percent of the military officers in contracting assignments were assigned to acquisition commands (54 percent Air Force, 50 percent Navy, and 49 percent Army).

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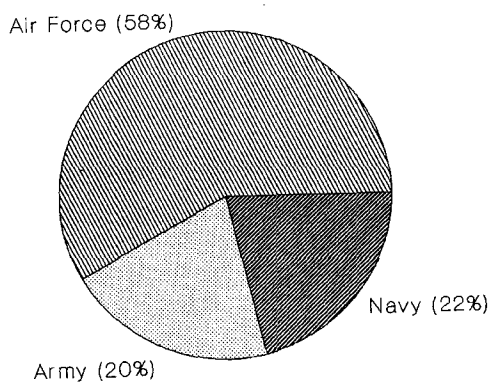
EXHIBIT V-19

MILITARY OFFICER CONTRACTING WORKFORCE 1988

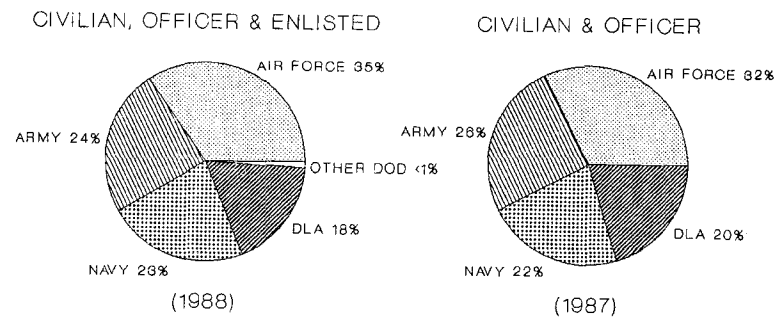


Combined Civilian and Military Contracting Workforce Comparisons

The Air Force has historically had the largest combined military and civilian contracting workforce, with the latest figures showing a total of 7726 personnel (32 percent), followed by the Army with 6404 (27 percent), the Navy with 5,233 (22 percent), and DLA with 4,559 (19 percent). When Air Force enlisted contracting personnel are included the total Air Force proportion of the DOD contracting workforce shifts from 32 to 35 percent (Exhibit V-30.

EXHIBIT V-30

TOTAL DOD CONTRACTING WORKFORCE



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MANAGEMENT OF ARMY CONTRACTING PERSONNEL

Army Military Career Program (Contracting)

In the Army, the Functional Chief for the contracting career program is the Assistant Secretary of the Army (Research, Development & Acquisition). He has appointed the Director of Contracting, Officer of the Deputy Assistant Secretary (Procurement), a General Office, as the Proponent for the FA97—Contracting and Industrial Management—career field.

Army officers generally serve five to seven years in their branch (i.e. armor, infantry, etc.) before entering the contracting career field. Since 1985 Army officers have been allowed to follow either a "single" or "dual" track career path. Officers on the "dual" track may be assigned to alternating positions in their branch and in the FA97 field. Of the 1574 officers currently holding FA97 designation, less than 7 percent are "single" tracked. In addition to the 1574 active duty FA97 officers, there are 649 FA97 officers in the Army Reserve and Army National Guard. Fifty-one percent of the active Army FA97 officers are at the O-3 level and 70 percent are assigned to centralized procurement organizations.

Army contracting officers compete for promotion with all other officers except for the professional career fields (lawyers, doctors, etc.) although there are selection floors established at the lieutenant colonel and colonel rank. Available data indicates that their

promotion rate at the O–5 and O–6 level is very competitive vis-a-vis other Army officers.

Army Civilian Career Program (Contracting)

The Army is developing a new career program for its 9,757 contracting civilians (occupational series 1101, 1102, 1103, 1150 1105, and 1106). This program is similar in some respects to the military program except that it is largely decentralized. The U.S. Army Personnel Command is responsible for the centralized aspects of career program management. The Assistant Secretary of the Army (Research, Development and Acquisition) is this program's Functional Chief. The Deputy Director, Army Contracting Support Agency is the Functional Chief's Representative for contracting civilians and is assisted by a series of boards, committees and individuals hierarchically organized from Department of Army to installation level.

In the Army, the career path for contracting civilians, as with other occupational series, is found in the Army Civilian Training, Education and Development System (ACTEDS), a formal competency based system that requires identification of knowledge, skills and abilities at each grade level. Recruiting is generally decentralized to the organizational level and is normally conducted by civilian personnel specialists at the request of the functional manager. In the case of recruitment for the 1102 series, Army organizational recruiters use the OPM register, on-campus recruiting, DOD-wide merit promotion announcements or the Outstanding Scholar Program, depending on the desires of local management. Unlike the other services, the Army has no centralized contracting intern program. Additionally, there is no current feedback mechanism to Army top management regarding the status and effectiveness of the field-managed intern programs.

While assignments and promotions of civilians is typically decentralized in the Army, the contracting and acquisition career field was an exception. Until 1986 the Army utilized the DOD-wide Automated Career Management System (ACMS) for referrals. Since its disestablishment in 1986 the Army has been developing a new central referral system, but has been using the Army Civilian Career Evaluation System (ACCES), a semi-automated system, in the interim.

MANAGEMENT OF NAVY CONTRACTING PERSONNEL

Navy Military Career Program (Contracting)

In terms of policy guidance, the Navy, at least theoretically, has a high degree of management integration of both civilian and military workforces. The Assistant Secretary of the Navy (Shipbuilding and Logistics) and the Navy Contracting Career Management Board have oversight responsibility for the development and operation of the Navy Contracting and Acquisition Career Management Program. The Navy Contracting Career Management Board performs centralized policy and oversight responsibilities for the contracting career field (both military and civilian), but it has met only three times since January 1987, and its primary emphasis is on civilian personnel. The functional career structure and personnel system are both under the cognizance of the Director of Supply Corps Personnel.

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Career progression is managed by assignment of subspecialty and Additional Qualification Designator codes to Supply Corps Officers. Although Navy military contracting officers are generally expected to continue alternating between sea and shore duty, they tend to specialize in contracting after entering the Navy Acquisition Contracting Officer Program. The Navy Acquisition Contracting Officer (NACO) program develops officers for future assignment to middle and senior grade contracting management billets through contracting work experience and formal training.

Assignments are made centrally by the Director of Supply Corps Personnel, Naval Supply Systems Command. In the Navy, military contracting officers only compete with officers in other subspecialties within the Supply Corps. The selection rate for promotion at the O–5 and O–6 levels of officers in contracting compares very favorably against the selection rate within the Supply Corps and the Navy as a whole. Although the number of Navy military contracting personnel (531 supply corps officers with specialty codes in acquisition and contracting) is less than a third of that in the Army and Air Force, their rank is considerably higher—with 20 percent at the O–3 level, 38 percent at the O–5 or O–6 level, and 1 percent who are flag officers.

Navy Civilian Career Program (Contracting)

The Navy Contracting Career Management Board performs centralized policy and oversight responsibilities for the civilian as well as military contracting personnel. Beyond this high level, execution is broadly decentralized to the functional contracting communities at the systems commands, supported by the Consolidated Civilian Personnel Offices. Reflecting the more decentralized approach of the Navy, there is no Navy implementing career program guidance beyond SECNAV Instruction 12400.4, although many of the commands have developed specific guidance on career ladders. Some 10,868 Navy civilians six series (1101, 1102, 1103, 1105, 1106, and 1150) are included in the contracting and acquisition career field.

The Navy relies largely on three means of hiring for the 1102 job category: the OPM Contract Specialist register, Outstanding Scholar appointments, and reassignment of current 1102's. Recruitment and selection of interns under the Navy's Contracting Career Management Intern Program are centrally managed by the Navy Career Management Center with participation from the recipient Systems Command or field contracting activity. Making a conscious effort over the past few years to increase its contracting interns, the Navy currently has 220 interns assigned to its Contracting Career Intern Program. Since the distablishment of the DOD Automated Career Management system, the Navy has gone to a decentralized approach for assigning and promoting civilian contracting personnel.

MANAGEMENT OF AIR FORCE CONTRACTING PERSONNEL

Air Force Military Career Program (Contracting)

Centralized career management responsibility resides primarily with the Air Force Military Personnel Center, however there is a high degree of coordination with the Functional Manager, the Director of Contracting and Manufacturing Policy. Although the Air Force has no established formal contracting career board structure or support organization outside the traditional Air Force military structure, it does have the most comprehensive career development program for its contracting officers. This program is divided into four phases, with an established career progression plan and successively higher levels of education and training required. Most Air Force contracting officers (65XX career field) follow a single track career program and may enter contracting early in their career. Fifty-seven percent of the Air Force military contracting personnel are either at the O-2 or O-3 level. However, a limited number of Air Force officers from other specialties or career fields—generally mid-level, rated officers requiring supplemental assignments—may also receive a contracting designation after specialized training.

Assignments are centrally managed through AFMPC, with the contracting Palace Team responsible for assignment of lieutenant colonels and below. Colonel and colonel (select) assignments are managed by the Colonels Group within AFMPC.

The approximately 1,512 active duty Air Force officers in the 65XX career field compete for promotion with officers from other specialty areas. The promotion rates of military contracting personnel are very competitive (and in fact are higher) when compared to other officers at the O-5 and O-6 levels. However, at the O-4 level, their promotion rate is not considered competitive. Air Force enlisted contracting personnel compete for promotion under the same system as all enlisted personnel and there are no designated promotion percentages reserved for them.

There are 606 officers in the contracting career field in the Air Force Reserve and Air National Guard. Unlike the other services, the Air Force also has 1611 active duty enlisted military personnel as well as 152 Reserve and Guard enlisted personnel in contracting career fields. Ninety-three percent of enlisted contracting personnel are assigned in the operational MAJCOMs (i.e. TAC, MAC); the seven percent assigned to the two major procurement commands, AFSC and AFLC, are employed in support of the base contracting function.

Air Force Civilian Career Program (Contracting)

The Air Force has been the most effective manager of its civilian contracting work force and has accomplished more toward professionalizing its contracting workforce than other DOD elements. Unlike its management of military contracting personnel, the Air Force has integrated civilian personnel management and functional management into a management team through its Contracting and Manufacturing Civilian Career Program (CMCCP). The CMCCP Policy Council—chaired by the Deputy Assistant Secretary of the Air Force for Acquisition Management and Policy—provides

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for centralized career program policy-making while maintaining field involvement and influence. The Policy Council is assisted by four panels to address professional development, position, promotion evaluation patterns and program effectiveness issues. Major Commands may also establish career boards to implement the career program and provide feedback through their MAJCOM representative to the Policy Council. The CMCCP is operated through a management team—the PALACE Team—out of the Air Force Civilian Personnel Management Center. The PALACE TEAM consists of civilian personnelists as well as functional management; through this arrangement, the team has direct communications with both civilian personnel and functional management at all levels.

In the Air Force, a career path for the 11,543 Air Force civilians in contracting and manufacturing (11 different job categories is spelled out in master development plans developed by the CMCCP Professional Development Panel and the PALACE Team after extensive coordination with functional civilian and military managers at all levels. Approved by the Policy Council, the plans set forth professional development objectives, mandatory and desirable training, education and typical assignments for each occupational series at various grade levels.

In the Air Force, recruiting for entry-level civilian contracting positions is decentralized, with the exception of the CMCCP intern programs. For all other positions, internal versus external recruiting decisions are left to the Major Command (MAJCOM) or local base. The Policy Council favors external recruitment of college graduates, preferably with a business background, however, the Council has not made this approach mandatory for local managers. With 344 civilian contracting personnel assigned to one of three intern programs (COPPER CAP, PALACE ACQUIRE, and the Presidential Management Interns), the Air Force has the largest number of contracting interns. With 87 percent of Air Force contracting interns having a college degree, they are much better educated than the total civilian workforce. The Air Force, through its Contracting and Manufacturing Civilian Career Program, has recently implemented a centralized personnel promotion referral system which is based on skill codes tied to an individual's experience.

MANAGEMENT OF DLA CONTRACTING PERSONNEL

Only seven percent of the Defense Logistics Agency's contracting workforce is military. DLA military contracting personnel are fairly evenly distributed among Army, Navy and Air Force officers.

Functional management responsibility for the 4,930 civilians in the 1102 contracting series in DLA rests with two officials, the Executive Director, Contracting, and the Executive Director, Contract Management. These officials have agency-wide responsibility and leadership for planning, developing and administering the DLA contracting career programs. However, there is no centralized contracting career program and most control and activity regarding civilian contracting personnel is delegated to the field activities—the DCASRs and Supply Centers.

In DLA, recruitment of new personnel—especially at the entry levels—is delegated to the local civilian personnel office. Unlike the services, over 50 percent of DLA's entry level 1102 contracting positions are filled with persons not having a college degree. DLA does not have a specific intern program for contracting personnel. However, since by DLA definition any individual in a position whose target is the full-performance level, all of DLA's GS-5/7 employees in the 1102 series are considered interns.

THE CONTRACTING OFFICER

Within the contracting workforce and the acquisition process, the contracting officer occupies a singularly important position as the individual legally authorized to enter into and administer contracts on behalf of the United States. The contracting officer is not only the person establishing the contractual relationship between the government and the contractor, he or she is at the fulcrum of the acquisition process—the individual who interfaces with the user, the Program Manager, the engineers, the attorneys, the Competition Advocate, the Source Selection Authority, and other personnel involved in the acquisition process.

The contracting officer's authority devolves to him from the Secretary of Defense (e.g. DLA) or the Service Secretary (the "head of agency") and he or she may bind the government only to the extent of the authority delegated. Delegations, or "warrants," may be unlimited or limited in terms of dollar value or type of contract, or type of product being purchased.

The qualifications or standards for appointment of contracting officers are established in general fashion in the Federal Acquisition Regulations (FAR). The Army has established no criteria beyond that found in the FAR, while both the Air Force and Navy SYSCOMs have adopted additional guidance limitations on authority provided persons of various degrees of qualification.

The appointment can be specific, in which case contracting authority is vested in the individual, or by position, in which case the authority to contract is granted by virtue of occupying the position held rather than by virtue of any individual qualifications the contracting officer may have. In the latter case contracting authority is typically an adjunct function of a broader job, and often has resulted in the appointment of a person not qualified in their own right to exercise contracting authority. This situation, and a similar one in which limited contracting officer warrants are provided persons not trained in contracting present obvious problems.

An additional problem in assigning contracting officers is that the personnel systems identify job positions in terms of specialties, e.g. contract negotiator, contract specialist, etc., without identifying if a contracting officer warrant is required. Since civilian personnel hiring is done at the local level the hiring official can always check whether the person is warranted, but with the centralized military personnel assignment process this is a problem.

While manual records of appointment are kept by appointing officials or the Heads of Contracting Activities, there is no centralized system to consolidate data such as the number of contracting officers by warrant type, educational level, etc.. The Air Force is

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able to track such information with respect to its civilians through its Contracting and Manufacturing Civilian Career Program (CMCCP). Facts gleaned from the Air Force and illustrative of the characteristics of the contracting officer workforce are as follows: (1) approximately 2,000 civilians have contracting warrants; (2) 79 percent of the warranted contracting officers are in the two procurement commands; (3) 89 percent of them are Procuring Contracting Officers; (4) 90 percent of them are in the grade of GS-11 and above; (5) 62 percent have college degrees (as compared to 60 percent for the GS-1102 series personnel as a whole).

CHAPTER VI—THE PROGRAM MANAGER AND DEPUTY PROGRAM MANAGER

PROGRAM MANAGEMENT PERSONNEL

Unlike the contracting workforce, which is an identifiable group, Program Management is a hybrid career field. Although Program Managers are drawn from many different disciplines, most have a scientific or engineering background, and operational experience is heavily emphasized. This chapter sets forth roles and attributes of the typical Program Manager, and the career program, personnel management system, and characteristics of Program Management personnel within each of the services.

ROLE AND ATTRIBUTES OF THE PROGRAM MANAGER AND DEPUTY PROGRAM MANAGER

The Program Manager is responsible for the successful management of the program—he or she must lead a team of specialists and experts who must work together to ensure the program results in delivery of the required product within the established cost, schedule and performance parameters. Because the primary goal is to deliver a product responsive to the user's needs, an operational and technical background, along with good management skills, have historically been viewed as the most critical skills for Program Managers, with a basic knowledge of business (contracting, etc.) principles a necessity in order to lead the functional experts on the Program Management team. The Deputy Program Manager has traditionally been relied on for business management expertise and management continuity.

QUALIFICATIONS OF PROGRAM MANAGERS

A variety of reports over the years have recommended improvements in the education, training and experience of Program Managers. Disenchanted with the lack of progress made by the Department, Congress in 1985 adopted a law (The Defense Procurement Improvement Act, P.L. 99-145) requiring the Secretary of each military department to "prescribe regulations establishing requirements for the education, training, and experience of any person assigned to duty as the Program Manager of a major defense acquisition program." The law also prescribed certain minimum educational and experience requirements.

AUTHORITY OF PROGRAM MANAGERS

The diffusion of authority of the Program Manager has also been a concern for a number of years, and was highlighted by the Packard Commission report which stated:

> "authority for executing acquisition programs—and accountability for their results—has become vastly diluted . . . it is fundamental that we establish unambiguous authority for overall acquisition policy, clear accountability for overall acquisition execution, and plain lines of command for those with program management responsibility."

TENURE OF PROGRAM MANAGERS

Not only must the Program Manager have the requisite authority, he or she must be in the job long enough to be held accountable for his or her performance, and to execute the program effectively. The Second Hoover Commission observed in 1955 that the two year average tenure of military Program Managers was too short, and every Commission since that time highlighted the same problem. Despite efforts to improve the length of assignment, including an effort by then Deputy Secretary of Defense Carlucci, and the adoption of a mandatory four year minimum assignment in P.L. 98-525, improvement in tenure rates have been slow.

For purposes of this report, tenure of Program Managers and Deputy Program Managers was calculated several different ways. It is portrayed first by major programs four or more years old—listing the date of assignment of the current Program Manager, and the period of assignment of Program Managers who have been with the program since the four year tenure requirement went in to effect (October 1984). Next, major programs that were ongoing in October 1984 are analyzed in terms of Program Managers appointed *after* that date and who have completed their assignment, and Program Manager tenure prior to the October 1984 date (including Program Managers appointed before the program was designated a major program).

PERSONNEL MANAGEMENT AND CAREER PROGRAMS—ARMY PROGRAM MANAGEMENT PERSONNEL

There are three categories of Program Management personnel in the Army (both civilian and military): Program Managers (typically general officers or colonels and in a rare instance a Senior Executive Service civilian); program or project managers (typically colonels and GM-15 civilians); and product managers (typically lieutenant colonel and civilian equivalents).

Army Military Career Program

The development and appointment of military Program Managers occurs within the framework of the Army's Materiel Acquisition Management (MAM) program, established in November, 1983. The program is centrally managed by the U.S. Army Personnel Command and the Army Materiel Command. Captains and above

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with at least 5½ years of service and at least 6 years of remaining service eligibility, possessing a degree in business, management, engineering or science, having completed appropriate military training, and having an acquisition related specialty are eligible to compete for entry into the MAM program. The MAM program is divided into three phases: the user/developmental phase (time spent in operational assignments); the MAM development phase (assignments in various Program Management offices, Program Management Course and appropriate military courses during years 6-15 of service); and the Certified Manager phase (years 16-20 in various positions below the Program Manager level, and Senior Service School attendance, and years 21-30 as a Program Manager). MAM participants may, however, dual-track, thereby substituting additional operational experience for acquisition jobs. As such they would be eligible for a Program Manager position with 7½ years of acquisition experience.

Personnel Management of Army Military Program Managers

Both AMC and PERSCOM track and participate in assignments of Program Managers. Only MAM certified officers are considered for selection as a Program Manager of a major program. Although Program Managers compete across the board for promotions within the Army, there is a minimum number required to be promoted within the career field. MAM officers have generally been promoted at a rate higher than the Army average.

Army Civilian Career Programs

The Army does not now have a distinct career program for civilian Program Managers or Deputy Program Managers, but two analogous programs are the Logistics and Acquisition Management Program (LOGAMP) and the Engineering and Scientist (E&S) Non-Construction Career Program. While MAM strives to make functional acquisition specialists out of generalists, the civilian programs try to make generalists out of functional specialists.

LOGAMP is centrally funded and administered by the Commander of AMC and a LOGAMP Committee consisting of several senior military and civilian officials, who establish program policy, make selections, etc. They have submitted a draft LOGAMP Army Civilian Training, Education and Development System (ACTEDS) to PERSCOM for approval. It sets forth a career roadmap for LOGAMP participants including key assignments outside the individual's functional specialty, and inter-disciplinary training.

The E&S Non-Construction program is one of the career fields within the purview of LOGAMP and consists of a four-phase program beginning with an intern level and proceeding to the management level. A special track has been designated for Program Managers and Deputies.

Personnel Management of Army Civilian Program Managers

While the LOGAMP and E&S Non-Construction programs serve as sources of qualified civilian Program Managers and Deputies, there is no career program specifically designed to develop such ci-

vilians in Program Management positions. The preponderance of civilian Program Managers and Deputies come from the E&S program, but that is not a planned occurrence. Selections are decentralized, using traditional civil service merit promotion and placement procedures. There is no career program organization to assure that civilians receive the appropriate training or meet the requirements of statute.

Career Program Enhancements for Army Military and Civilians

The Army is presently in the process of restructuring the MAM program to better meet its needs and statutory requirements. While still allowing some dual-tracking, the new program will ensure that all candidates for Program Manager have at least 8 years of acquisition experience, completion of an Intermediate Service School, an operational assignment while a major, completion of a Senior Service School and the Program Management Course, and two years experience in a procurement command. In addition, the Acquisition Management Mission Cluster Group Career Program is designed to integrate civilian and military personnel management in the acquisition field. Positions would be filled through an identification of qualified individuals, either military or civilian, who meet the criteria for the position.

CHARACTERISTICS OF ARMY PROGRAM MANAGEMENT PERSONNEL

Program Manager Tenure—Army

Average of Program Managers of major programs (4 or more years old) in place since 1984 (excluding the current Program Manager) is 24.5 months; this figure increases to 29 months if one excludes the time in which Deputy Program Managers held the position while awaiting assignment of a Program Manager. In only four instances (SINCGARS, LHX, HTV and Bradley) has the Program Manager served 4 or more years, and in only one instance has a Program Manager appointed *after* the law went into effect served 4 or more years. Thirty-eight percent left because of retirement, 34 percent due to reassignment and 28 percent due to promotion. Average tenure of Program Managers assigned prior to 1984 was 23.3 months; the average 29.4 months if one excludes Deputies acting as Program Managers.

EXHIBIT VI–17—ARMY—MAJOR PROGRAMS MORE THAN 4 YEARS OLD

Major program	Current PM in since	Dates of previous PM tenure (since 84)	Months	Reason for leaving
Advanced Attack Helicopter (AAH)	JUN 1987	SEP 86–MAY 87	10	Reassigned.
		MAY 86–SEP 86	5	Deputy acting.
		JAN 83–MAY 86	40	Reassigned.
M–1 Abrams	JUL 1987	JUL 84–JUL 87	36	Reassigned.
Air Defense Command and Control System (ADCCS) (FAADC2).	APR 1988	SEP 85–APR 88	31	Reassigned.
		NOV 83–SEP 85	22	Retired.
Army Helicopter Improvement Program (AHIP).	APR 1988	FEB 88–APR 88	2	Deputy acting.
		APR 85–FEB 88	34	Retired.
		OCT 82–APR 85	42	Promotion.

EXHIBIT VI–17—ARMY—MAJOR PROGRAMS MORE THAN 4 YEARS OLD—Continued

Major program	Current PM in since	Dates of previous PM tenure (since 84)	Months	Reason for leaving
Advanced Antitank Weapons System (AAWS).	FEB 1988	JAN 86–JAN 88	24	Retired.
		JUN 82–DEC 85	42	Reassigned.
All Source Analysis System (ASAS)	JUL 1984			
Army Tactical Missile System (ATACMS)	MAR 1985	NOV 84–MAR 85	5	Deputy acting.
		APR 84–NOV 84	8	Promotion.
Black Hawk	JULY 1986	NOV 83–JUL 86	32	Retired.
Bradley	AUG 1989	JUL 85–AUG 89	49	Retired.
		SEP 83–JUL 85	22	Reassigned.
CH–47D	AUG 1987	MAY 86–AUG 87	15	Retired.
		JUL 83–MAY 86	34	Retired.
Copperhead	DEC 1985	DEC 85–APR 89	40	Disestablished.
		MAR 85–DEC 85	10	Deputy acting.
		AUG 81–MAR 85	42	Retired.
Family of Heavy Tactical Vehicles (FHTV)	JUN 1989	APR 89–MAY 89	1	Deputy acting.
		FEB 86–APR 89	38	Completed milestone.
		OCT 84–FEB 86	16	Reassigned.
Hellfire	FEB 1988	AUG 87–FEB 88	6	Deputy acting.
		JUL 84–AUG 87	37	Promotion.
Light Helicopter Experimental (LHX)	AUG 1984			
Multiple Launch Rocket System (MLRS)	SEP 1987	JAN 85–AUG 87	32	Promotion.
		DEC 83–JAN 85	25	Promotion.
Mobile Subscriber Equipment (MSE)	JAN 1986	DEC 83–JAN 86	25	Retired.
Family of Medium Tactical Vehicles (FMTV).	JAN 1989	OCT 86–JAN 89	27	Reassigned.
		AUG 84–OCT 86	26	Retired.
Patriot	FEB 1987	JUN 85–FEB 87	20	Promotion.
		NOV 83–JUN 85	19	Reassigned.
Position Location Reporting System/Joint Tactical Information Distribution System (P.L.RS/JTIDS).	JAN 1989	SEP 88–JAN 89	5	Deputy acting.
		DEC 87–SEP 88	10	Promotion.
		FEB 86–DEC 87	22	Reassigned.
		NOV 85–JAN 86	2	Deputy acting.
		NOV 83–NOV 85	24	Retired.
Single-Channel Ground and Airbourne Radio System (SINCGARS).	AUG 1986	APR 81–AUG 86	64	Promotion.
Stinger	NOV 1988	SEP 88–NOV 88	2	Deputy acting.
		JAN 86–SEP 88	30	Promotion.
		AUG 82–DEC 85	40	Retired.
Tubed Launched Optically Tracked Wire Command-Linked Guided Missile (TOW).	JUN 1987	APR 84–JUN 87	38	Reassigned.

Education: all have Master degrees.

Training: 96 percent have completed the DSMC Program Management Course; one received a waiver; all have completed a Senior Service School.

Experience: 81 percent have 8 years acquisition experience; 85 percent were certified in the MAM program; 96 percent had 2 years experience in a procurement command.

EXHIBIT VI–21—REQUIREMENTS FOR PROGRAM MANAGERS

[Major Programs]

Requirements	Total number	Number complying	Percent
Statutory:			
Complete Program Management Course (10 U.S.C. 1622 (b)(1)) effective July 1, 1987	27	26	96
Eight years experience in Acquisition (effective July 1, 1989)	27	22	81

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EXHIBIT VI-21—REQUIREMENTS FOR PROGRAM MANAGERS—Continued

[Major Programs]

Requirements	Total number	Number complying	Percent
Two years experience (Procurement command) (10 U.S.C. 1622 (b)(2) effective July 1, 1989	27	26	96
Four years tenure (P.L. 98-525, sec. 1243, Defense Proc. Reform Act of 1984)	15	2	13
Average tenure (months)	24.5		
Education:			
Baccalaureate	27	27	100
Intermediate Service School or Senior Service School	27	27	100

Military Program Managers—Army

Program Managers—Major Programs (27 of 28 are military)

Program Managers—Non-major programs (100 out of 128 military)

Education: 96 percent have bachelor degrees; 91 percent have masters degrees; five have doctorates; and 68 percent have completed an Intermediate Service School.

Training: 80 percent have completed the Program Management Course.

Experience: 83 percent have 3 or more years experience in acquisition and 77 percent have one year of experience in a procurement command.

Deputy Program Managers—Major programs

None.

Deputy Program Managers—Non-major programs (7 military)

Education: 100 percent have baccalaureate degrees.

Training: none had completed the Program Management Course.

Experience: 71 percent had 3 years acquisition experience; 43 percent had one year of experience in a procurement command.

Civilian Program Managers—Army

Program Manager—Major Program (1 civilian temporarily assigned pending replacement by military)

Education: Baccalaureate degree.

Training: has not completed Program Management Course.

Experience: 22 years acquisition experience.

Program Managers—Non-Major Programs (28 out of 128 civilian)

Education: 68 percent baccalaureate degree.

Training: 11 percent have completed Program Management Course.

Experience: 89 percent had minimum of 3 years acquisition experience and one year of experience in a procurement command.

Deputy Program Managers—Major Programs (all 28 civilian)

Education: 96 percent have baccalaureate degrees.

Training: four have completed Progam Management Course.

Experience: 100 percent have minimum of 3 years acquisition experience.

Deputy Program Managers—Non-Major Programs (63 civilian, 14 vacancies)

Education: 81 percent have baccalaureate degrees; 50 percent masters level or higher.

Training: six have completed the Program Management Course and five have completed an Intermediate Service School.

Experience: 59 percent have at least 3 or more years experience in acquisition and 58 percent have one year of experience in a procurement command.

REPRESENTATIVE PROGRAM OFFICES—ARMY

Multiple Launch Rocket System (MLRS)

Program Managers

Tenure: nine different colonels serving an average of 16.6 months.

Education and Training: 100 percent baccalaureate degrees; four of nine master's degrees; two Ph.D.s; 100 percent completed Intermediate or Senior Service School; only one of last four has completed Program Management Course.

Experience: 100 percent have acquisition experience (9 to 20 years); three were previous Program Managers.

Deputy Program Managers

Tenure: two civilians; first served 11 years.

Education and Training: current Deputy has a baccalaureate degree in engineering and a masters degree in management; has not completed Program Management Course.

Experience: 28 years of experience in acquisition; 17 years of previous program management experience.

Contracting Officers

Tenure: three different civilians serving an average of 4 years.

Experience: all 15-20 years experience.

Tactical Airborne Remotely Piloted Vehicle

Program Managers

Tenure: six military (five colonels; 1 lieutenant colonel) serving an average of 16 months.

Education and Training: last Program Manager had a baccalaureate and masters degrees and attended an Intermediate Service School; has completed Program Management Course.

Experience: over 9 years of acquisition experience.

Deputy Program Managers

Tenure: five civilians; previous four served an average of 31 months.

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Education and Training: 100 percent baccalaureate and masters degrees. Current Deputy has Ph.D.; none completed Program Management Course.

Experience: current Deputy has 25 years of experience in acquisition and 12 years of previous program management experience.

Contracting Officers

Tenure: two civilians; first served 7 years

Education and Experience: Both have masters degrees and at least 16 years experience.

Bradley Fighting Vehicle

Program Managers

Tenure: eight military and one civilian serving an average of 28 months.

Education and Training: Current Program Manager has masters degree and graduated from the Industrial College of the Armed Forces; has completed Program Management Course.

Experience: Colonel with 19 years of service; 9 years of acquisition experience.

Deputy Program Managers

Tenure: two civilians; first served 10½ years.

Education and Experience: current Deputy has a master degree; has 24 years acquisition experience; has not completed Program Management Course.

Contracting Officers

Tenure: four contracting officers since 1977.

Education and Experience: all educationally qualified; current has law degree; first three averaged 28 years of experience and current contracting officer has 7 years of experience.

PERSONNEL MANAGEMENT AND CAREER PROGRAMS—NAVY PROGRAM MANAGEMENT PERSONNEL

Navy Military Career Program

The Navy military Program Management career program consists of two sequential components, the Weapon System Acquisition Management (WSAM) Program for the mid-grade ranks, and the Materiel Professional (MP) Program for senior officers. The WSAM program was instituted in 1975 and reconstituted in 1986 as the primary source (more than 75 percent) of candidates for the MP program. The program includes both Unrestricted Line Officers (URL), Restricted Line (RL) officers with engineering and maintenance backgrounds, and Staff Corps officers from supply and civil engineering. The Naval Military Personnel Command (NPMC) performs all personnel management functions in coordination with the WSAM coordinator. There are eight different career paths, depending on the type of officer (URL, RL, or Staff Corps), and different tracks within those paths for different career fields (e.g. URL are divided into surface warfare, nuclear submarine and aviation officer paths; RL into Engineering Duty Officer, Aeronautical Duty Officer and Aviation Maintenance Duty Officers).

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The Materiel Professional program, established in 1985, is managed by the Deputy Chief of Naval Operations (Manpower, Personnel and Training) with the assistance of the Materiel Professional Standing Board. Selection for the program is competitive (although the number of officers selected from the URL is controlled to ensure adequate representation from the aviation, surface warfare and submarine warfare communities to fill certain positions) with an emphasis on officers with operational experience, engineering and materiel management and maintenance experience and certain functional skills, such as contracting, finance or logistics. As in the WSAM program, both URL, RL and Staff Corps officers follow different career paths once in the MP program.

PERSONNEL MANAGEMENT OF NAVY MILITARY PROGRAM MANAGERS

The Secretary of the Navy approves all major system Program Manager selections and waivers to statutory requirements for education, training and experience. Selections of Program Managers are made from approved MP lists maintained by the Director of Materiel Professional Program Personnel Policy. Deputy Program Managers are selected by the Systems Commands (SYSCOMS).

Program Management personnel, including officers in the MP program, compete with other line officers and staff corps officers in their respective competitive categories. Promotion rates of senior Materiel Professional officers are very competitive with their contemporary Unrestricted Line peers.

In addition, the Business/Financial Manager Career Program (B/FM) provides an expanded population of Supply Corps commanders and lieutenant commanders for future Program Management assignments. High quality junior officers are assigned to the B/FMT program at either NAVAIR or NAVSEA for two years of financial planning, budget formulation and execution, contact management and cost analysis experience.

The Director of Contracts and Business Management, Assistant Secretary (Shipbuilding and Logistics) is responsible for the training and development of each Business/Financial Management Trainee (B/FMT). B/FMT billets are centrally administered by the Fleet Materiel Support Office.

Navy Civilian Career Program

The Civilian Materiel Professional Program is designed to develop the Navy's civilian Program Managers and acquisition personnel for the execution of designated Acquisition Category (ACAT) acquisition programs. Each Navy Systems Command with ACAT Navy acquisition programs is responsible for developing and implementing a Civilian MP (CMP) program. Although minimum training, experience and educational requirements have been established by the Navy, additional criteria have been set by the individual SYSCOMs. Thus, there is no single, uniform career progression path.

Personnel Management of Navy Civilian Program Managers

The Civilian Materiel Professional program is largely decentralized. Each SYSCOM is responsible for identifying CMP billets, program qualifications and requirements and certifying and assigning qualifying civilians. The Navy Materiel Professional Standing Board exercises policy and oversight authority over implementation of both military and civilian MP programs. Presently, 340 Program Management related jobs are designated for Civilian Materiel Professionals.

CHARACTERISTICS OF NAVY PROGRAM MANAGEMENT PERSONNEL

Program Manager Tenure—Navy

Average tenure of Program Managers of major programs (4 or more years old) since 1984 (excluding the current Program Manager) is 41 months; if Deputy Program Managers temporarily assigned as the Program Manager are excluded, the figure increases to 46 months; in only two instances since October 1984 has the Program Manager met the 48 month tenure requirement (E-6A, T-45TS). Primary reason for leaving was reassignment (53 percent), followed by retirement (32 percent). Average tenure of Program Managers assigned prior to 1984 was 42.8 months.

EXHIBIT VI-50—NAVY MAJOR PROGRAMS MORE THAN 4 YEARS OLD

Major program	Current PM in since	Dates of previous PM Tenure (since 84)	Months	Reason for leaving
Steam propulsion surface combatant program.	JUN 1989	SEP 85–JUN 89	45	Reassigned.
Aegis	MAY 1987	SEP 85–APR 87	19	Reassigned.
		JUL 77–AUG 85	109	Reassigned.
CVN-68/71 Nucl Aircraft carrier	AUG 1985	JUL 80–JUL 85	60	Reassigned.
Amphibious ship	APR 1985	JUL 78–APR 85	93	Retired.
Aux/special mission ship	JUN 1984			
New design submarine	AUG 1988	NOV 83–AUG 88	57	Reassigned.
SSN-688 nucl attack sub	MAY 1988	MAR 88–MAY 88	2	Interim.
		JUN 87–MAR88	9	Relieved.
		APR 86–JUN 87	14	Reassigned.
		JUN 83–APR 86	34	Retired.
Trident Ohio class	JUN 1989	JAN 89–JUN 89	6	Interim.
		APR 86–JAN 89	33	Reassigned.
		JUN 85–APR 86	8	Reassigned.
		AUG 84–JUN 85	10	Interim.
AG-E/A-6F & EA-6B	JUL 1987	SEP 84–JUL 87	34	Retired.
AV-8B Harrier	SEP 1988	MAR 86–SEP 88	30	Retired.
		DEC 85–MAR 86	3	Interim.
		JUL 83–DEC 85	29	Reassigned.
CH-53 E Sea Stallion	JUL 1989	JUL 86–JUL 89	36	Reassigned.
		MAY 81–JUN 86	62	Retired.
E-2C Hawkeye	MAY 1988	MAR 84–MAY 88	50	Reassigned.
E-6A (EC-Tacamo)	DEC 1985	SEP 85–NOV 85	4	Interim.
		AUG 81–AUG 85	48	Retired.
F-14D Tomcat	NOV 1987	DEC 83–NOV 87	48	Reassigned.
F-18 Hornet	AUG 1986	SEP 83–AUG 86	35	Reassigned.
Lamps MK III/C12 ASW Halo	AUG 1988	MAY 84–AUG 88	51	Reassigned.
P-3C Orion	DEC 1988	JAN 86–DEC 88	36	Reassigned.
		JUL 81–DEC 85	53	Reassigned.
T-45TS	JUN 1989	JUN 85–JUN 89	48	Retired.

EXHIBIT VI-50—NAVY MAJOR PROGRAMS MORE THAN 4 YEARS OLD—Continued

Major program	Current PM in since	Dates of previous PM Tenure (since 84)	Months	Reason for leaving
		DEC 82–JUN 85	30	Retired.
Air-to-air missile system	FEB 1986	JUL 80–FEB 86	67	Reassigned.
Standard missile	JUL 1989	JUN 89–JUL 89	1	Interim.
		FEB 80–MAY 89	111	Retired status.
Tomahawk	SEP 1988	APR 86–SEP 88	29	Reassigned.
		DEC 82–APR 86	40	Reassigned.
Trident II (D-5)	JUN 1985	MAY 79–JUN 85	73	Retired.
Defense Supr systems (HARM AGM 88A)	APR 1989	JUL 87–APR 89	22	Reassigned.
AN/BSY-SUBACS	JUN 1987	JAN 85–JUN 87	18	Retired.
		MAY 84–JUN 87	37	Reassigned.
Anti-ship weapon system (Harpoon cruise missile).	JUN 1986	OCT 82–JUN 86	44	Reassigned.
Airborne self-protection jammer	AUG 1988	AUG 83–AUG 88	60	Retired.
MK-48 torpedo	MAR 1987	JUL 83–MAR 87	44	Reassigned.
MK-50 torpedo	MAY 1989	JUL 88–MAY 89	10	Reassigned.
		JUN 86–JUN 88	24	Retired.
		MAY 79–JUN 86	85	Retired.
AN/SQQ-89	JUN 1988	NOV 82–JUN 88	67	Reassigned.
Sea Lance (ASW stand-off)	OCT 1988	JUL 84–OCT 88	51	Retired.
Distributed surveillance system	MAY 1988	APR 82–MAY 88	73	Retired.
Phalanx close-in weapon system	JUN 1984			

Military Program Managers—Navy

Program Managers—Major Programs (35 of the 37 are military)

Education and Training: 100 percent baccalaureate degrees; 65 percent master degrees; 10 individuals have degrees above the master level; six completed a Senior Service School; only 10, or 29 percent, have completed Program Management Course.

Experience: 71 percent met experience requirement of 8 years acquisition experience and two years in a procurement command.

EXHIBIT VI-54—REQUIREMENTS FOR PROGRAM MANAGERS

[Major programs]

Requirements	Total number	Number complying	Percent
Statutory:			
Program Management Course (10 U.S.C. 1622 (b) (1)) Effective July 1, 1987	35	10	29
Experience:			
Eight years acquisition effective July 1, 1989	35	25	71
Two years procurement command effective July 1, 1989	35	25	71
Tenure:			
Four years (P.L. 98-525, Sec. 1243, Defense Procurement Reform Act of 1984)	15	2	13
Average tenure (in months)	41		
Education:			
Baccalaureate degree	35	35	100
Intermediate or senior service school	35	5	14

Program Managers—Non-Major Programs (47 of 50 are military)

Education and Training: 100 percent baccalaureate degrees; 62 percent master degrees; seven above master level; six completed In-

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termediate Service School; 18, or 38 percent, completed Program Management Course Basic (Phase I);

Experience: only 57 percent have required 3 years of acquisition experience including 1 year in a procurement command.

Deputy Program Managers—Major Programs (52 assigned to 36 programs)

Education and Training: 100 percent have baccalaureate degrees; three have master degrees; one has a degree above the master's level; has none completed Intermediate Service School; 26 completed the Program Management Course.

Experience: only 18, or 35 percent, meet experience requirements.

Deputy Program Managers—Non-Major Programs (15 of 50 military)

Education and Training: 100 percent have baccalaureate degrees; two have master degrees; none has completed Intermediate Service School; three completed Program Management Course.

Experience: only one meets the experience requirements.

Civilian Program Managers—Navy

Program Manager—Major Program (two of 37 civilian)

Tenure: 100 percent meet minimum 4 year requirement

Education and Training: 100 percent have baccalaureate degrees; 50 percent completed Senior Service School; 50 percent completed Program Management Course.

Experience: 100 percent have at least 8 years acquisition experience and 100 percent two years experience in a procurement command.

Program Managers—Non-Major Programs (three civilians)

Education and Training: 100 percent have baccalaureate degrees; one has a masters degree; one has completed Program Management Course; two have completed the Basic (Phase I) of the Program Management Course.

Experience: 100 percent have at least 3 years of acquisition experience and 1 year in a procurement command.

Deputy Program Managers—Major Programs (37 civilians)

Education and Training: 100 percent have baccalaureate degrees; 38 percent have a master degree; 58 percent have completed Intermediate Service School; 32 percent have completed Program Management Course.

Experience: 100 percent have at least 3 years acquisition experience.

Deputy Program Managers—Non-Major Programs (26 civilians)

Education and Training: 100 percent have baccalaureate degrees; eight have master degrees; one has Ph.D.; six have completed Program Management Course.

Experience: 100 percent have one year of acquisition experience.

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REPRESENTATIVE PROGRAM OFFICES—NAVY

Air-to-Air Missile Systems Program

Program Manager

Tenure: five Program Managers; first two served prior to designation as major program, average tenure 54 months; two served after designation as major program an average of 60 months. Current has been serving since 1986.

Education and Training: last two have master degrees; both have completed Industrial College of the Armed Forces; none has completed the Program Management Course.

Experience: first had 23 years of acquisition experience; current has 5 years.

Deputy Program Manager

Education and Training: master degree in Management Science; has not completed Program Management Course.

Experience: 16 years of acquisition experience.

Contracting Officers (five assigned to the program)

Education and Training: 100 percent have baccalaureate degrees and two Ph.Ds; 100 percent have completed large number of contracting courses.

Experience: Average over 11 years of contracting experience.

PHALANX Close-in Weapon System (CIWS) Program Office

Program Manager

Tenure: one Program Manager since 1984.

Education and Training: has a baccalaureate degree, a master degree, and has completed Program Management Course.

Experience: has only 5 years.

Deputy Program Manager

Tenure: GM-15 has been on board since June 1988.

Education and Training: has baccalaureate degree; has not completed Program Management Course.

Experience: has 24 years of acquisition management experience.

Contracting Officer

Tenure: since April 1987.

Education and Training: masters degree in public administration.

Experience: less than 8 years total contracting experience.

Nuclear Attack Submarine Program (SSN 688)

Program Managers

Tenure: nine since 1968 with average service of 32 months.

Education and Training: recent Program Managers have possessed baccalaureate degrees; current has master degree; none has completed a Senior Service School; current Program Manager has completed the Program Manager Course.

Experience: last have had at least 8 years of weapons-related experience with at least 2 years with NAVSEA.

Deputy Program Manager

Education and Training: Senior Executive Service civilian; has baccalaureate degree; graduate of Civilian Materiel Professional program; has completed Program Management Course.

Experience: has 20 years of acquisition experience.

Contracting Officer

Tenure: since July 1987.

Education and Training: graduate of Presidential Management Intern Program; master degree in business management.

Experience: 7 years of contracting experience.

PERSONNEL MANAGEMENT AND CAREER PROGRAMS—AIR FORCE PROGRAM MANAGEMENT PERSONNEL

Air Force Military Career Program

The Acquisition Management Professional Development Program (AMPDP) was designed to professionally develop military Program Managers and Deputy Program Managers through the rank of lieutenant colonel. The Assistant Secretary of the Air Force (Acquisition) is responsible for the AMPDP and the operation and management of the program is delegated to Air Force Systems Command. Guidance for the implementation of the AMPDP has its origin as an AFSC regulation; the Air Force is planning to make this regulation Air Force-wide. The Commander of AFSC maintains overall executive responsibility for the AMPDP. The AMPDP consists of a professional certification program with four distinct levels with specific qualification requirements and a formal acquisition manager screening process. Entry into the program is voluntary and competitive with various selection boards managed by AFSC and is open to all Air Force officers with experience in the required areas of expertise. Qualified officers are included on the Acquisition Managers List (AML) and the Senior Acquisition Managers List (SAML) for selection by Systems Command organizational commanders, Headquarters Air Force and the Assistant Secretary (Acquisition) functional managers to fill key middle and senior management positions at the grades of major and lieutenant colonel.

Program Managers are assigned to either Systems Command, Air Force Logistics Command or Air Force Communications Command. Other officers included within the purview of the AMPDP are assigned throughout the Air Force.

The Air Force has a two-tier career management model with the lower tier consisting of the AMPDP and the upper tier consisting of the Program Directors List. Program Directors occupy the key Program Management jobs in the Air Force and are considered a specialty position. Determination of which programs require Program Directors is made by the Commander of Air Force Systems Command. There are currently 38 System Program Offices (SPOs) requiring Program Directors.

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In addition, the Air Force has a separate acquisition management career path for rated officers. These officers, in order to meet their required "gates" to be eligible to continue receiving flight pay, do not enter into the acquisition career field until their eleventh year, rather than the 6-year point.

Personnel Management of Air Force Military Program Managers

The Assistant Secretary for Acquisition has overall responsibility for selection and assignment of qualified Program Managers and Program Directors. Military Program Managers compete with other line officers for promotions. There is no separate selection board. Promotions are not dependent on completion of courses for acquisition personnel; however, the assignment process places heavy emphasis on course completion.

Air Force Civilian Career Programs and Personnel Management

There are two civilian career programs under development. Neither is fully operational at this point. The programs are: 1) the Scientist and Engineer (S&E) Career Program, 2) the Civilian Acquisition Management Program (CAMP). In addition, the Systems Acquisition Career Management for Civilians (SACM'sC) program has been in existence in a moribund state for a number of years.

CHARACTERISTICS OF AIR FORCE PROGRAM MANAGEMENT PERSONNEL

Program Manager Tenure—Air Force

Average tenure of Program Managers of major program (4 or more years old) in place since 1984 (excluding the current Program Manager) is 25 months; when deputies serving on an interim basis as Program Manager are excluded the average climbs to 28 months; on only seven of 24 programs over 4 years old since 1984 has a Program Manager been in place for 4 years (DSP, AMRAAM, C-17, Mark XV, OTH-B, SRAM II, PEACEKEEPER Silo Programs), and on only one program (DSP), has there been a Program Manager in place over 4 years since the law was enacted. Reasons for leaving, in descending order are: retirement (39 percent);reassignment (36 percent); promotion (13 percent); and death (2 percent).

EXHIBIT VI-84—AIR FORCE—MAJOR PROGRAMS MORE THAN 4 YEARS OLD

Major program	Current PM in since	Dates of previous PM tenure (since 84)	Months	Reason for leaving
AMRAAM	AUG 1988	AUG 1984–JUL 1988	48	Promoted.
ATARS	MAR 1987	NOV 1985–FEB 1987	15	Promoted.
		JUL 1983–JUL 1985	24	Promoted.
ATF	DEC 1986	JUN 1983–DEC 1986	42	Retired.
B1-B	AUG 1988	JAN 1987–AUG 1988	19	Reassigned.
		MAY 1985–JAN 1987	20	Retired.
		NOV 1981–JUN 1985	43	Promoted.
C-17	SEP 1987	OCT 1986–AUG 1987	10	Retired.
		JAN 1980–OCT 1986	81	Reassigned.

EXHIBIT VI-84—AIR FORCE—MAJOR PROGRAMS MORE THAN 4 YEARS OLD—Continued

Major program	Current PM in since	Dates of previous PM tenure (since 84)	Months	Reason for leaving
DMSP	DEC 1987	FEB 1985–DEC 1987	34	Retired.
		AUG 1983–FEB 1985	18	Reassigned.
DSCS III	MAR 1989	OCT 1987–JAN 1989	15	Promoted.
		JUN 1986–SEP 1987	15	Retired.
		AUG 1984–JUN 1986	22	Reassigned.
DSP	APR 1985	FEB 1983–APR 1985	26	Retired.
E-3A Radar improvement	APR 1989	NOV 1986–APR 1989	29	Retired.
		AUG 1985–NOV 1986	15	Reassigned.
		MAR 1983–AUG 1985	29	Reassigned.
F-15	JUN 1987	AUG 1984–JUN 1987	34	Promoted.
F-16	JUL 1986	AUG 1983–JUL 1986	35	Reassigned.
JSTARS	JUL 1986	DEC 1985–JUL 1986	7	Reassigned.
		JUL 1984–DEC 1985	17	Reassigned.
JTIDS	MAR 1988	JAN 1988–MAR 1988	3	Deputy Acting.
		FEB 1985–DEC 1987	33	Retired.
		MAR 1984–FEB 1985	11	Reassigned.
LANTIRN	JUN 1987	DEC 1986–MAY 1987	6	Reassigned.
		AUG 1984–DEC 1986	28	Reassigned.
MARK XV	JUL 1987	AUG 1986–JUN 1987	10	Retired.
		JAN 1985–AUG 1986	19	Reassigned.
MAVERICK	JUL 1987	APR 1986–JUL 1987	15	Retired.
		JUL 1984–APR 1986	21	Retired.
MILSTAR	APR 1989	FEB 1986–APR 1989	38	Reassigned.
		JUL 1983–FEB 1986	31	Reassigned.
MLS	JUN 1988	OCT 1987–JUN 1988	8	Deputy acting.
		JUN 1985–OCT 1987	33	Reassigned.
NAVSTAR	AUG 1988	OCT 1985–AUG 1988	34	Retired.
		JUL 1983–OCT 1985	39	Retired.
OTH-B	SEP 1988	JUN 1985–AUG 1988	38	Retired.
		JUN 1982–JUN 1985	41	Reassigned.
PEACEKEEPER Silos	MAY 1989	JAN 1989–MAY 1989	5	Temporary PM.
		MAR 1987–JUN 1989	22	Retired.
		OCT 1986–MAR 1987	6	Retired.
		MAY 1982–OCT 1986	53	Promoted.
SMALL ICBM	AUG 1985	JUL 1984–JUL 1985	12	Deceased.
SFW	OCT 1988	APR 1987–OCT 1988	24	Reassignment
		MAR 1985–APR 1987	25	Promoted.
SRAM II	NOV 1988	JUL 1984–NOV 1988	52	Retired.
KC-135 Reengining	JUN 1988	JUN 1984–MAY		Reassigned.

Military Program Managers—Air Force

Program Managers—Major Programs (28 of 29 military)

Education and training. All exceed the education requirements with 28 having a master degree and one above a master degree. All have completed a Senior Service School such as Air War College; only 14, or 48 percent, have completed the Program Management Course at DSMC (three have received required waivers).

Experience. 97 percent have at least 8 years acquisition experience two of which are in a procurement command. Their average experience is 17 years.

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EXHIBIT VI-89—REQUIREMENTS FOR PROGRAM MANAGERS

[Major programs]

Requirement	Total number	Number complying	Percent
Statutory:			
Complete Program Management course (10 U.S.C. 1622(b)(1)) effective July 1, 1987	29	14	48
Eight years experience in acquisition (effective July 1, 1989)	29	28	97
Two years experience (Procurement command) (10 U.S.C. 1622(b)(2) effective July 1, 1989	29	28	97
Four years tenure (P.L. 98-525, sec. 1243, Defense Proc. Reform Act of 1984)	20	1	5
Average tenure (months)	25		
Education:			
Baccalaureate	29	29	100
Intermediate Service School or Senior Service School	29	29	100

Deputy Program Managers—Major Programs (17 of 29 military)

Education and Training. All meet the educational requirements, with 15 having a master degree and one a doctorate; all 17 have completed Intermediate Service School, such as Air Command and Staff College; only seven have completed the Program Management Course.

Experience. All meet or exceed the minimum experience requirement and average experience is 16 years, 6 months.

Program Managers and Deputy Program Managers—Non-major programs

The Air Force was unable to provide any information about the education, training and experience levels of personnel at its 192 non-major programs.

Civilian Program Managers—Air Force

Program Manager—Major Program (1 civilian)

Tenure. 15 months

Education and Training. Ph.D. in mechanical engineering; has not completed Program Management Course.

Experience. 25 years of acquisition experience.

Deputy Program Managers—Major Programs (9 civilians)

Education and Training. 100 percent baccalaureate degrees; three of six master degrees are in business administration; four have completed Program Management Course.

Experience. Average 22 years of acquisition experience.

Non-Major Programs

Information was not available.

REPRESENTATIVE PROGRAM OFFICES—AIR FORCE

Advanced Medium Range Air-to-Air Missile (AMRAAM)

Program Managers

Tenure. Six Program Managers (all military) serving an average of 23 months. One served 4 years.
Education and Training. 100 percent master degrees; one completed Program Management Course.
Experience. Average acquisition experience was 12 years.

Deputy Program Managers

Tenure. Four colonels averaging greater than 3 years.
Education and Training. 100 percent have master degrees; one completed Program Management Course.
Experience. Last two averaged 13 years acquisition experience.

Contracting Officers

Tenure. Two civilians; first served 9 years and current serving since 1985.
Education and Training. First had master degree; current holds baccalaureate degree.
Experience. Average 17½ years of contracting experience.

F-15

Program Managers

Tenure. 12 total with average of 22.5 months; last three were colonels serving an average of 24 months.
Education and Training. Last two held master degrees.
Experience. Average over 10 years of acquisition experience; current Program Manager served previously as a Program Manager for two years.

Deputy Program Managers

Tenure. Last four served an average of 17 months; first two were civilians, latter two were military.
Education and Training. All had masters degrees; two completed Program Management Course.
Experience. Last three averaged over 14 years of acquisition experience and 8 years of Program Management experience.

Contracting Officers

Tenure. Of present two civilians one has been there since 1985.
Education and Training. One master degree; one associate degree.
Experience. Both have 15 years of contracting experience.

C-17

Program Managers

Tenure. Four colonels with average service of 29 months; first held position for 6 years, 9 months.

Education and Training. 100 percent master degrees; one completed Program Management Course.
Experience. Average 9 years of acquisition experience.

Deputy Program Managers

Tenure. Have been two civilians and one colonel; current civilian has been in place since March, 1988.
Education and Training. 100 percent have baccalaureate degrees; none has completed Program Management Course.
Experience. Average 14 years of acquisition experience.

Contracting Officers

Education and Training. Both colonels had MBAs; civilian had baccalaureate degree.
Experience. One colonel had 10 years and the other 4 years of contracting experience; civilian had 13 years of contracting experience.

National Aerospace Plane (NASP) Joint Program Office

This is a joint Air Force and National Aeronautics and Space Administration program. The Program Manager reports directly to the commander of Air Force Systems Command.

Program Manager

Tenure. One civilian—in place since inception (Nov. 1987).
Education and Training. Far exceeds minimum standards; has not completed the Program Management Course.

Deputy Program Manager

Tenure. Three Deputies—one each for Navy, NASA, Air Force; the Air Force Deputy is a lieutenant colonel (in since March 1988); the NASA Deputy a civilian in place since May 1986; and the Navy Deputy civilian in place since August 1986.
Education and Training. Air Force Deputy has a baccalaureate degree and a master degree in business administration.
Experience. Extensive experience as fighter pilot and test pilot; limited acquisition experience.

Contracting Officers (five civilians, one military)

Education and Training. All six have baccalaureate degrees; four have master degrees.
Experience. Civilians average 13.5 years of contracting experience; military has over 5.5 years experience.

CHAPTER VII—PROFESSIONALISM OF THE ACQUISITION WORKFORCE

Clearly within the Department of Defense, concerted efforts have been made to develop a professionalized cadre of officers and enlisted personnel whose mission in the broadest sense is the defense of the United States. While the acquisition of the weapon systems and other equipment and material required by the military in performing this mission is a critical link in the performance of this overall

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defense mission, there has been far less emphasis placed on developing a high quality, professionalized acquisition workforce.

A premise of this report, and recommendation in many prior commission reports, is that the professionalism of the acquisition workforce must be improved. A measure of "professionalism" is difficult because professionalism embodies attitudes, values, and motivations, which are difficult to grasp and to measure. Instead, many use as a substitute measure membership in a "profession"—the entry criteria, required specialized knowledge, public attestation to certain ethical standards, etc., being a measure of the characteristics of people who could be termed professionals in their field.

THE CONCEPT OF PROFESSIONALISM

Professionalism, in succinct terms, derives from the act of professing that one is entering into a profession—an occupation which requires great skill and specific prerequisites for entry. An occupation crosses the threshold into a profession when society recognizes the value of those skills—the skills and competencies required do not necessarily change—but rather, society's view of the importance of those skills. A profession has six qualifying characteristics: a specialized body of knowledge, requirements for education and training, professional organizations or societies, certification or licensing, a code of ethics, and social utility.

EDUCATION

Education—one key element of professionalism—is of crucial importance in developing a quality acquisition workforce. While a formal education is by no means a perfect indicator of technical competence, it does represent the best objective measure for which data are available.

The Committee's research indicates that Program Managers of major and non-major programs, the greatest majority of which are military officers, are highly educated. However, there is currently no requirement that DOD contracting personnel have a college degree, and as of 1987, only 51 percent of DOD's contracting workforce had a college degree. With 59 percent of its civilian contracting workforce having degrees, the Air Force has the most highly educated element of DOD's contracting workforce and the Army, with 46 percent, has the least educated element.

A comparison of the educational level of the civilian contracting workforce within DOD and other relevant groups is illustrative (see Exhibit VII-2): (1) while the trend is toward an increasing number of personnel with college degrees, the percentage of military contracting personnel holding bachelors degrees has increased over the last 15 years from 95 percent to 99 percent (the percentage with master degrees increased from 50 percent to 63 percent), the percentage of the civilian contracting workforce holding bachelors degrees has increased from only 40 percent in 1975 to 51 percent in 1985 (the percentage with master degrees has increased from 5 percent to 10 percent); (2) despite the lack of education in the civilian contracting workforce within DOD, DOD's workforce is generally not less educated that the rest of the federal GS-1102 workforce; (3) in comparison to the other professional series, in which all employees would be required to have degrees, the percentage is abysmal, but in comparison to other administrative series GS-1102 series personnel are much more educated (with 54 percent within DOD holding degrees as opposed to 38 percent within other administrative series) (see Exhibit VII-7).

EXHIBIT VII-1—EDUCATIONAL COMPARISON OF OFFICERS TO CIVILIANS

[In percent]

	1975		1980		1985	
	Mil	Civ	Mil	Civ	Mil	Civ
Army:						
BA/BS	56	30	26	34	13	36
MA/MS	40	4	72	7	86	8
Total	96	34	98	41	99	44
Navy:						
BA/BS	42	31	40	32	39	40
MA/MS	43	6	56	5	54	9
Total	95	37	96	37	93	49
Air Force:						
BA/BS	43	41	40	38	36	45
MA/MS	56	6	60	11	64	13
Total	99	47	100	49	100	58

Source: Defense Manpower Data Center.

EXHIBIT VII-2

EDUCATIONAL COMPARISON OF OFFICERS TO CIVILIANS
DEPARTMENT OF DEFENSE

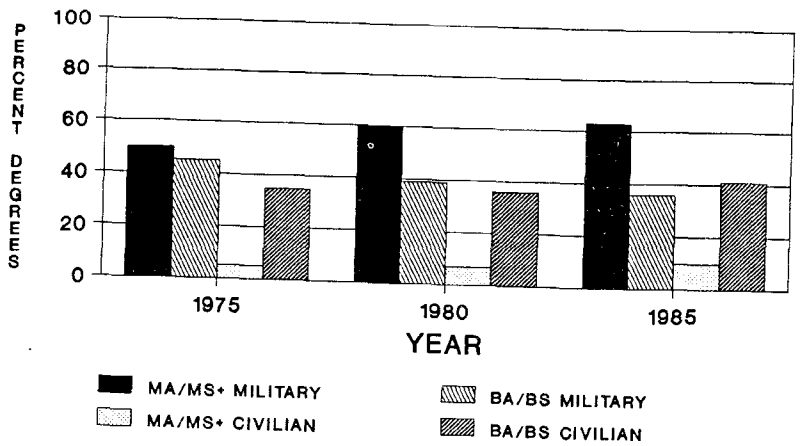

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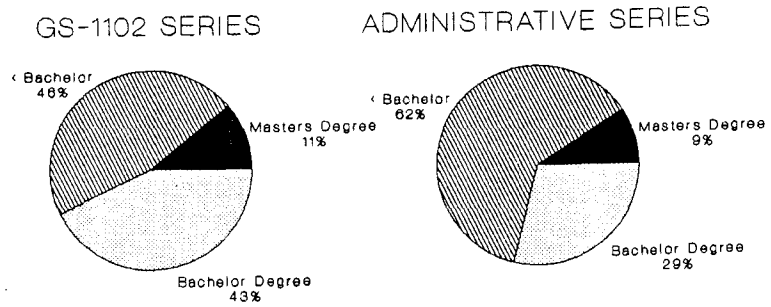
EXHIBIT VII-7

GS-1102 VERSUS ADMINISTRATIVE SERIES DEPARTMENT OF DEFENSE TOTAL



While the trend has been an increasing number of personnel with college degrees, a few points are worth noting about these statistics: (1) the Services began from very different starting points (the Air Force with 48 percent in 1978 as compared to the Navy with 35 percent); (2) there has been a general increase in the number of Americans graduating from college (by 1988 one in four Americans was a college graduate as opposed to one in five in 1978), thus the pool of people entering government service is by and large more educated; (3) the percentage of the federal workforce possessing college degrees is much greater than the national average (31 percent as opposed to 23 percent), and reflects a gradual trend toward an increasing number of professional and administrative employees, as opposed to technical and clerical employees, in the federal workforce.

Perhaps the most critical factor in analyzing the level of education within the contracting workforce is the form of entry into the GS-1102 series. In 1987, 83 percent of those hired into the GS-1102 from outside the government had college degrees, whereas only 35 percent of those recruited from within the government had degrees. Paradoxically, however, the trend has been away from hiring outside the government (the percentage of outside hires peaked in 1981 at 32 percent and has declined since then to 28 percent in 1987).

Form of entry is also a factor in attracting persons with degrees in business, law and public administration. In 1987, for example, 28 percent of the external hires were business majors, compared with

14 percent of the internal hires. While 53 percent of the college degree holders hired in 1987 majored in business, only 22 percent of the hires from 1979–82 majored in business. This growth is consistent with the general growth in business major graduates throughout the United States.

While educational requirements for job entry, including a baccalaureate degree have long been recognized as key elements of developing a high quality, motivated corps of technical experts, great difficulty has been encountered in establishing minimum educational requirements for the civilian contracting workforce. The Office of Personnel Management, which must sanction the establishment of occupational entry requirements, has historically opposed such requirements for the field of contracting, contending that an analysis of the contracting occupation does not support a college degree requirement. OPM points out that the Veteran's Preference Act, in Section 3308 of Title 5, United States Code, states that a minimum educational requirement may not be prescribed except when OPM "decides that the duties of a . . . position cannot be performed by an individual who does not have a prescribed minimum education." According to OPM, contracting can be performed by an individual who does not have a prescribed minimum education because a large percentage of the people currently performing successfully and advancing to high levels in the occupation do not have a specific education background. Therefore, to prescribe an educational requirement would be directly contrary to law.

In a July 20, 1985 letter then Deputy Secretary of Defense William H. Taft IV beseeched OPM to establish a positive degree requirement for contracting personnel. OPM again exhibited its reluctance to recognize the need for a college degree to perform various contracting functions. Secretary Taft in December, 1986 promulgated DOD Directive 5000.48 establishing the holding of a college degree as a quality ranking factor for distinguishing amongst similarly qualified candidates. On May 13, 1987, responding to direction from Congress to make recommendations to enhance the professionalism of the acquisition workforce, DOD requested two legislative changes: (1) a change to Title 5 U.S.C. Section 3308 to allow OPM to establish minimum educational standards for contracting personnel; and (2) a change to Title 5 U.S.C. 4107 to allow for payment of training expenses when the primary purpose is to provide an opportunity to an employee to obtain an academic degree in order to qualify for an appointment to a position.

OPM in August 1988 issued new qualification standards for GS-1102 personnel which include a requirement for 24 hours of business related courses with a baccalaureate degree; however, individuals may still substitute qualifying experience. OPM the following month also requested that Congress change 5 U.S.C. 4107 to allow the government to pay expenses associated with obtaining a college degree.

TRAINING

Various studies of the defense acquisition process have recognized that inadequate training of Program Management and pro-

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curement personnel has frequently been the cause of costly systems acquisition deficiencies. These studies have emphasized the need for improving training of defense acquisition and contracting personnel. Mandatory DOD training requirements for contracting civilian personnel date back to 1961. However, while the requirements are long-lived, the military services have traditionally paid minimal attention to achieving required contracting training objectives.

Deficiencies in DOD contracting training were highlighted in a 1984 DOD Inspector General Report which found that 67 percent of the required contracting courses had not been completed by required personnel from the 24 activities reviewed. The DOD IG found a number of impediments to compliance, including: (1) an insufficient number of class offerings; (2) the high turnover of contracting personnel which resulted in constant hiring of new personnel with new training requirements; (3) no specification of when required training should be completed; and, (4) training institutions which did not offer sufficient alternative training modes such as correspondence courses, seminars, and equivalency examinations. Additionally, each service had its own system for identifying contracting civilians to attend classes, none of which was efficient or comprehensive since they generally relied on manual systems.

The 1984 Defense IG report served as an impetus for implementation of activities designed to redress the chronic contracting training difficulties prevalent at that time. Recognizing that deficient funding had been a major problem in meeting training goals, in 1985 the Deputy Secretary of Defense issued a memo requiring that procurement training plans should support mandatory training for 85 percent of mandatory requirements each year. Additionally, the Deputy Secretary directed a comprehensive review of actions needed to promote a more professional contracting, quality assurance, and program management workforce. The resulting study effort by the Acquisition Enhancement Group culminated in the drafting of new DOD training directives and instructions and recommended the establishment of a DOD University of Acquisition Management. The latter was resisted by the services and in 1987 was rejected by the Under Secretary of Defense (Acquisition).

Contracting Training Status

Current information from each of the services and DLA regarding the percent of its contracting personnel who have completed required training was not available because of the continuing deficiencies in their information systems. In some cases the latest information available was developed in 1986 when data was collected by a manual survey to respond to a DOD training study. The Army reported that in 1986, 65 percent of its contracting civilians and 25 percent of military contracting personnel had not completed mandatory contracting courses. The Navy reported that 59 percent of its contracting civilians and 64 percent of its military had not received required contracting training. Comparable DLA information indicates that in 1986 48 percent of its contracting personnel had not received required training. However, DLA also reported that this backlog was further reduced by 1988. Although comparable 1986 data for the Air force indicates that 60 percent of civilian contracting personnel and 71 percent of military contracting personnel had not received required training in 1986, the Air Force reports that its training shortfall in 1989 for contracting civilians was reduced to 32 percent.

While data from all the services may be somewhat unreliable because of the manner in which it was collected, there are indications that improvements have been made since the contracting training shortfall was originally reported in 1984. However, DOD still has a long way to go before achieving the 85 percent training goal which, as previously noted, was established as a training goal by the Deputy Secretary of Defense in 1985. Exhibit VII-57 provides a breakout of current mandatory contracting and systems acquisition training requirements, lists fiscal year 1990 requests for this training, current quotas for these courses, as well as the 85 percent required training level for each course. Based on this analysis, only 36 percent of the 1990 required contracting training can be met under the current quotas.

EXHIBIT VII-57—MANDATORY TRAINING REQUIREMENT/QUOTAS

	Army	Navy	Air Force	DLA	Other	Requests/quotas	85 percent
Contract Administrative Executive	294/63	260/56	372/80	750/162	27/6	1703/367	1448
Contract Law	1399/1179	3390/787	4958/1151	465/108	11/26	10323/3250	8775
Adv Contract Admin	403/339	1012/243	1308/314	125/30	28/7	2875/933	2444
Principles of Contract Pricing	750/638	983/601	1154/739	455/291	27/17	3324/2286	2825
Quantitative Techniques for Price/Cost Analysis	112/94	271/63	397/92	135/31	9/2	923/283	785
Adv Contract Pricing	87/19	82/17	99/21	20/4	8/2	296/63	252
MDAC (Basic)	805/678	973/623	1205/771	500/320	27/17	3510/2410	2984
MDAC (Adv)	935/787	2350/564	3035/728	2300/552	64/15	8684/2646	7381
MDAC (Exec)	1173/254	962/208	1249/270	250/54	73/16	3707/801	3151
Def Contracting for Infor Resources	98/82	237/55	347/80	15/3	8/2	705/223	599
Maj Systems Acq for Contracting Personnel	55/12	51/11	62/14	0/0	5/1	172/38	146
Def Acq and Contracting Executive Seminar	301/254	1163/251	1305/282	100/22	108/23	2977/832	2530
Program Management Course	26/188	44/188	35/188	0/0	5/21	110/585	94
Total	5265/4587	11733/3667	15526/4730	5115/1577	500/155	39309/14716	33413

Program Manager Training Status

DOD Directives and policy have not established mandatory training requirements for Program Managers. Consequently the only Program Manager training requirement is the statutory requirement established in 1985 by Public Law 99-145 which requires Program Managers of major programs to have completed the Program Management Course at the Defense Systems Management College. As of January 1989, 54 percent of the current 93 Program Managers of major programs—including 96 percent of the Army, 29 percent of the Navy, and 48 percent of the Air Force Program Managers— had completed the Program Management Course.

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Training Institutions

There are several key training institutions involved in systems acquisition and contracting training. The Defense Systems Management College (DSMC) has been designated as the executive agent for the DOD education and training program for the acquisition workforce. DSMC is charged with: certification and identification of non-DOD education and training; elimination of duplication in course curricula; promotion of higher quality training; development of standards for demonstrating competencies in lieu of course attendance; and general oversight of course quality. Other training activities providing systems acquisition and contracting training are maintained by each of the services and DLA, including the Air Force Institute of Technology (AFIT), Army Logistics Management Center (ALMC), Air Force Lowery Technical Training Center, Navy Acquisition Management Training Organization, Naval Facilities Contract Training Center, and DLA Civilian Service Support Office. DSMC, AFIT and ALMC are sponsoring schools which have responsibility for a specific course of instruction within DOD's mandatory contracting curricula. The other schools have been authorized to teach mandatory courses when the cognizant sponsoring source is unable to meet the demand. While the DSMC charter suggests that it should have overall management responsibility for assuring the availability and quality of training to meet the needs of DOD acquisition and contracting personnel, the college lacks the authority, resources and supporting information system to effectively implement the required DOD acquisition training program.

CHAPTER VIII—CIVILIAN—MILITARY MIX

The issue of the roles of military officers and civilian employees and their proper mix or ratio within the defense workforce has been recurrent throughout the history of the Department. Several prominent commissions have studied the issue and determined that there are many opportunities for greater civilianization of non-combat DOD functions. While specific guidance has been promulgated by OSD and the military services about the procedures for determining which functions should be military and which should be civilian, the GAO and DOD internal audit groups have determined that the guidelines have not been followed and that increased civilianization would produce significant savings.

The directives require that civilian personnel be used in positions which do not require military personnel for reasons of law, training, security, discipline, rotation, or combat readiness, or that do not require a military background for successful performance of the duties involved. Military should be assigned when the position requires skills and knowledge acquired primarily through military training and experience. Conversely, civilians should be assigned to positions "when specialist skills required are usually found in the civilian economy and continuity of management and experience is essential and can be better provided by civilians."

Although there are some difficulties determining the correct numbers within the categories because of definitional and reporting problems, the best data available indicates that 84 percent of the contracting workforce is civilian (Army—93 percent, Navy—93

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percent, Air Force—67 percent, and DLA—93 percent) (Exhibit VIII-2). In program offices the percent of personnel that are civilian varies dramatically amongst the services—in the Army it is 80 percent, in the Navy 70 percent, and in the Air Force, only 26 percent (Exhibit VIII-5).

EXHIBIT VIII-2

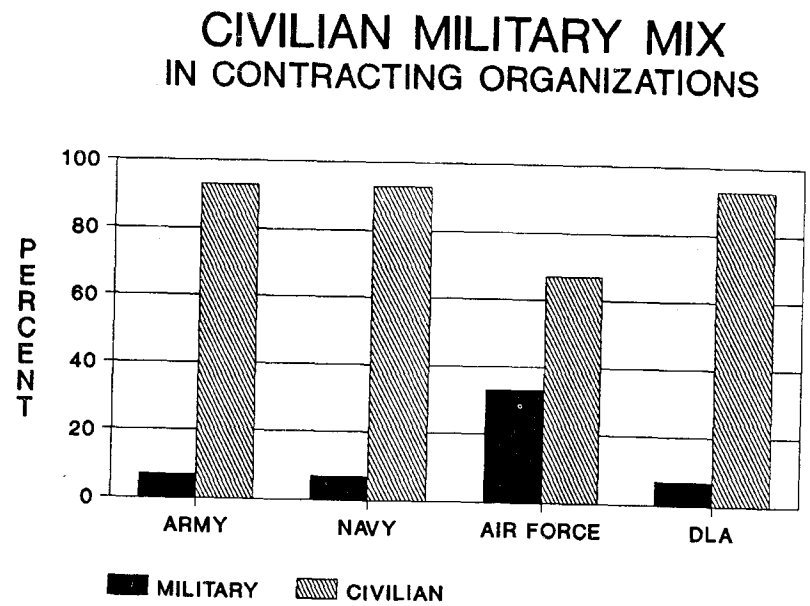
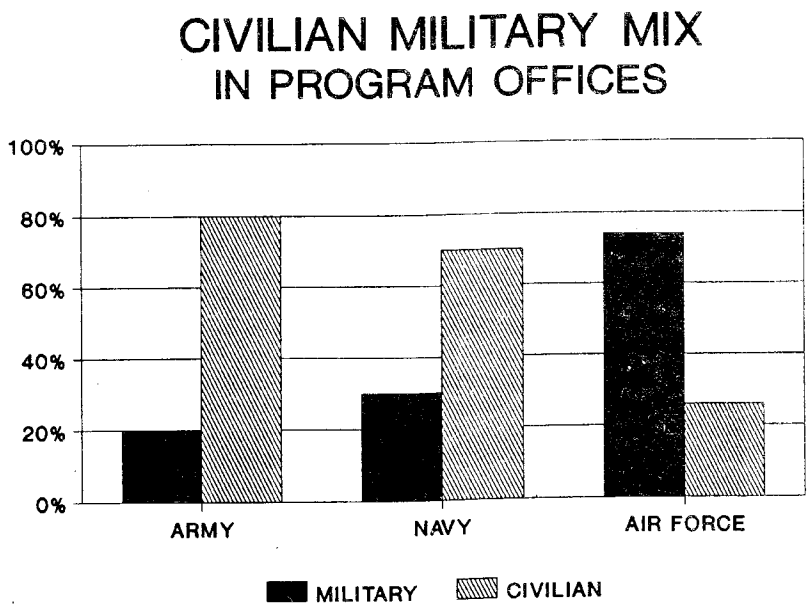


EXHIBIT VIII-5



In all cases, military are concentrated in the senior positions even though they may comprise a small percentage of that segment of the workforce. For example, 96–97 percent of the Program Managers of major programs are military. For non-major programs the number of civilian Program Managers is greater, but military Program Managers are still the norm. Civilians do serve in greater numbers in Deputy Program Manager positions—in the Army 93 percent of the Deputies are civilian, in the Navy 48 percent are civilians, and in the Air Force—35 percent. This is reflective of the practice of having an officer in the senior position to provide leadership, and a civilian deputy to provide continuity.

CHAPTER IX—COMPENSATION

The issue of compensation has in recent years been a troublesome one for public sector employment in general and more critically with regard to the government's acquisition and contracting workforce. While there is not always a visible effect (such as high turnover rate or empirically valid statistical measure of a reduction in the quality of the workforce) of poor compensation, as the Comptroller General so aptly concluded, its insidious effect may be more critical. As the Comptroller noted: "If the quality of the federal workforce is reduced, the quality of government services and programs is reduced. The bottom line in this situation . . . is less effective government services . . . and, therefore, less respect for the government."

Theoretically, the government follows a long-standing concept of "comparability," set forth in the Federal Salary Reform Act of 1962 (Public Law 87–793), which states that "Federal salary rates shall be comparable with private enterprise salary rates for the same levels of work." This precept was affirmed in the Federal Pay Comparability Act of 1970 (Public Law 91–656), which transferred responsibility for adjusting these pay rates from the Congress to the President. Despite this policy, since the early 1970's there has been a growing divergence in the pay of General Schedule civil service employees relative to the private sector. As shown in Exhibit IX–5, based on a comparison of three private sector indices—the Professional, Administrative, Technical, and Clerical (PATC) pay survey of private section salaries, Employment Cost Index (ECI), and Adjusted Hourly Earnings (AHE), while military personnel also lack pay comparability, the problem is not nearly so grave as for civil service personnel.

EXHIBIT IX–5—COMPARISONS OF KEY COMPENSATION INDICATORS

Year	PATC	ECI	AHE	GS civilians	Military
1972	67.60		65.70	67.60	67.60
1973	71.52		69.80	71.07	71.66
1974	75.38		74.46	76.89	76.89
1975	80.21		80.00	78.55	81.10
1976	87.43		86.70	82.47	85.15
1977	93.55		92.90	86.74	89.56
1978	100.00	100.00	100.00	92.83	95.85
1979	107.90	107.76	108.20	97.90	101.09
1980	116.32	115.98	116.80	104.78	108.18
1981	126.90	126.76	127.30	114.32	108.18
1982	139.21	138.43	138.90	119.81	120.84
1983	150.15	148.43	148.50	124.60	143.65
1984	160.18	157.77	155.30	129.58	149.39
1985	165.79	166.27	160.50	134.12	155.37

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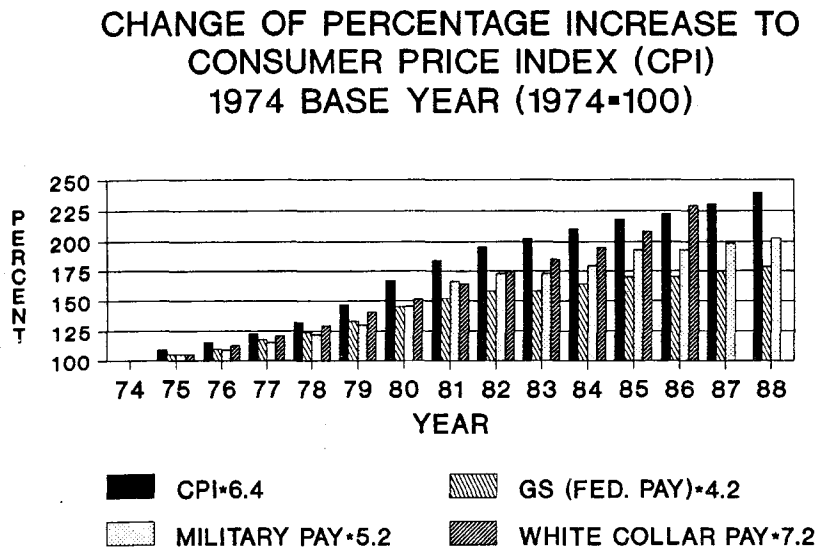
EXHIBIT IX-10



*Annual Compound Rate of Growth (%)
Change in Purchasing Power: GS -25.4%;
Military -15.5%; White Collar 3.2%

Pay Comparability of Program Management Personnel

Program Management personnel come from several different functional backgrounds; therefore, it is difficult to objectively quantify the specific differences in pay between the public and private sectors. However, since most program management personnel have a technical or engineering background, a comparison of the differences in pay between government engineers and their private sector counterparts should be applicable to the general field of Program Management.

The government has historically had difficulty attracting engineers. To address this problem, the Office of Personnel Management, under 5 U.S.C. 5303, has authorized special salary schedules as well as special hiring authority for engineers allowing for higher minimum rates and a corresponding new salary range. By 1987, special salary rates authorized under this authority had been approved for professional engineers in grades GS-5 through 12. While this special pay has lessened the pay gap for civil service engineers relative to those in the private sector, the rate of special pay extensions in the 1980's has failed to keep pace with private sector pay, and the comparability gap for engineers has been growing significantly. Another measure is the rate of increase in pay for civilian engineers as opposed to private sector engineers. As Exhibit IX-15 shows, there was a considerable increase in private sector pay between 1970-1988, while there was virtually no growth in civil service pay.

EXHIBIT IX-15—ENGINEERS COMPARABILITY PAY

[GS-Special pay rates]

	1970	1975	1980	1985	1987	1988
GS-5	$8,510	$11,607	$14,618	$18,710	$19,268	$19,654
Private sector	$10,209	$12,917	$19,411	$27,405	$28,958	$29,222
Difference percent	20	11	33	46	50	49
GS-7	$10,528	$12,518	$18,101	$23,170	$23,866	$24,342
Private sector	$11,077	$14,197	$21,285	$30,275	$32,295	$32,997
Difference percent	5	13	18	31	35	36
GS-9	$11,855	(1)	$21,011	$25,980	$28,347	$29,199
Private sector	$12,350		$24,160	$34,348	$37,235	$38,244
Difference percent	4		15	32	31	31
GS-11	$13,493	(1)	$22,672	$28,039	$30,469	$31,383
Private sector	$14,695		$28,486	$40,991	$44,360	$45,680
Difference percent	9		26	46	45	46
GS-12	$14,665				$32,673	$33,979
Private sector	$17,004	(1)	(1)	(1)	$52,698	$54,817
Difference percent	16				61	61

[1] None.

Pay Comparability of Contracting Personnel

Pay comparability of contracting personnel is more readily addressed than that of Program Management personnel since contracting constitutes a homogeneous group in both the government and the private sector. As indicated by Exhibit IX-16, which compares the pay growth of contracting personnel in civil service over the past 20 years relative to that of their counterparts in the private sector, the pay gap between these two sectors has grown significantly. Unlike the field of engineering, government contracting personnel have not been authorized special pay rates, and the pay gap in contracting is more severe than in engineering. As Exhibit IX-25 illustrates, using the private sector as a baseline, the pay gap for both military and civilian contracting personnel has been growing steadily since 1970. Furthermore, while there is a pay disparity for both military and civil service contracting personnel, since about 1985, the impact has been far greater on civil service contracting personnel.

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CHAPTER I—INTRODUCTION

The acquisition system within the Department of Defense consists of three distinct, but interrelated, elements. The first element is the policies, procedures, and processes which govern the operation of the acquisition system. The second element is the organization of the resources (management structure, capital, and facilities) within the Department of Defense that execute the policies and procedures. The last element are the people within the organizations that make the system work.

A properly functioning system requires an appropriate balance of all three elements, mutually supporting one another in a synergy in which the whole is greater than the sum of the parts. This requires the development of policies, implementing procedures and processes that most effectively support the basic acquisition missions of the United States. Policy implementation must occur through a rational and streamlined organizational structure that enhances, rather than encumbers, the acquisition process by conjoining decision-making, authority, and responsibility at the right organizational levels while concomitantly striking a balance between an integrated team of acquisition experts and the checks-and-balances of various acquisition functions necessary to provide the decision-maker objective and accurate information. Lastly, quality, professional acquisition personnel at all levels are the indispensable element in the acquisition system.

The great majority of efforts to improve the acquisition system over the past 20 years have focused on changes in acquisition policies, procedures, and processes. These have included acquisition techniques such as Total Package Procurement, Design-To-Cost, emphasis on various contract types, and the use of multi-year contracting. Major legislative changes include the Competition In Contracting Act and the Defense Procurement Reform Act of 1984, as well as other provisions adopted in the annual Defense Authorization Act.

There have been fewer efforts to improve the management and organizational structure of the acquisition system (with even less attention focused on the workforce.) The most notable have been the changes implementing the Packard Commission recommendation to streamline the acquisition organizational structure.

It is axiomatic that any organization requires qualified, trained and properly motivated personnel to effectively achieve the organization's missions and goals. Although good people can get the job done even in the wrong organizational structure, the wrong people (unqualified, poorly trained, and lacking motivation) cannot accomplish the mission even in the best organizational setting. Ironically, few reform efforts have been directed towards improvements in the quality of acquisition personnel. Lack of reform, however, is not

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synonymous with lack of concern. In the case of the acquisition workforce within the Department of Defense (DOD), it has been recognized for at least 30 years, both within and outside government, that the quality and professionalism of this workforce must be improved.

The importance of this issue was best described in the Fitzhugh Commission (*Blue Ribbon Defense Panel*) report of July 1, 1970:

> The key determinants of the ultimate effectiveness and efficiency of the Defense Procurement process are the procurement personnel who have the challenging responsibility for interpreting and applying the regulations . . . The importance of this truism has not been appropriately reflected in the recruitment, career development, training and management of the procurement workforce. As a consequence, the Department is faced with a significant number of immediate and future problems with respect to the availability in adequate numbers of appropriately qualified and capable procurement personnel.

Sixteen years later, the *Blue Ribbon Commission on Defense Management,* chaired by former Deputy Secretary of Defense David Packard, noted that the Defense Department "must be able to attract and retain the caliber of people necessary for a quality acquisition program." Most recently, former Presidents Carter and Ford advised the new Bush Administration that:

> With experienced, competent civil servants and political appointees Defense Department acquisition can be managed successfully. Without them no organizational or policy changes are going to make any substantial difference in DOD management . . . The single most likely way to produce further waste in DOD and further procurement scandals is to discourage public service by the competent, to take no steps to improve the quality of the career civilian managers, and to appoint to important positions in DOD those who have little or no relevant knowledge of, or experience in, defense-type acquisition. *(American Agenda: Report to the Forty-First President of the United States).*

HISTORICAL BACKGROUND

In addition to the Fitzhugh and Packard Commissions, four additional commissions since 1945 have reviewed the acquisition workforce within the Department of Defense. The First and Second Hoover Commissions (1949 and 1955), the Commission on Government Procurement (1972), and the Grace Commission (1983), all observed the necessity to improve the quality and professionalism of DOD acquisition personnel. In addition, there have been numerous studies and reports from various observers, such as the General Accounting Office, the Rand Corporation, internal Department of Defense studies, and academia.

In critiquing various aspects of the DOD acquisition organization and process, many of these reports also noted the need to improve personnel management of the acquisition workforce. For example, J. Ronald Fox observed in 1974 *(Arming America)* that the "most

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far-reaching reform would be the establishment of a clearly defined procurement career field within the military, with senior procurement managers controlling assignments and promotions. Anything short of this will not resolve the continuing crisis in procurement management." However, writing 14 years later *(The Defense Management Challenge: Weapons Acquisition),* Fox observed that efforts to establish military career programs for Program Managers and procurement personnel had been resisted:

> . . . by senior officers in personnel and combat arms units, who were unconvinced of the need for a highly skilled and stable professional force to manage the acquisition process. Senior combat arms officers (who control military assignments and promotions) were also concerned that they would lose some of their most able officers to acquisition careers if they lost control of the assignment and promotion process.

Despite the resistance to change observed by Fox, there have been efforts both within and outside the DOD to address the various Commission recommendations. For example, in 1982 the President issued Executive Order 12352, the first in history to focus solely on reform of the federal procurement process. It required each department to establish "career management programs, covering the full range of personnel management functions, that will result in a highly qualified, well managed procurement workforce." An Executive Committee on Federal Procurement Reform, chaired by the Administrator of Federal Procurement Policy, was formed in May 1982 to facilitate implementation. Task Group 6 of the Executive Committee provided guidance on establishing procurement career management programs, and issued 38 recommendations in its final report, some of which have been implemented.

In 1984, Congress enacted provisions (P.L. 98–369, Title VII, Section 2721, 98 Stat. 1185, 10 U.S.C. 2301(6)) requiring the head of each executive agency to "develop and maintain a procurement career management program in the executive agency to assure an adequate professional workforce." The Defense Procurement Reform Act of 1984 (P.L. 98–525, Sec. 1243) established a minimum assignment for Program Managers of four years or until completion of a major program milestone. In 1985 Congress passed a requirement (Title 10 U.S.C. 1622, Sec. 924, P.L. 99–145) that a person appointed as Program Manager of a major defense acquisition program have completed the Program Management Course at the Defense Systems Management College or a "comparable course," and have had at least eight years of experience in acquisition support and maintenance of weapons systems, at least two of which were performed while assigned to a procurement command (the Army Materiel Command, Air Force Systems Command and Air Force Logistics Command, and the Systems Commands of the Navy).

In April 1986, the *Blue Ribbon Commission on Defense Management,* or Packard Commission, recommended that:

> Significant improvements should be made in the senior-level appointment system. The Secretary of Defense should have increased authority to establish flexible personnel

management policies necessary to improve defense acquisition. An alternate personnel management system should be established to include senior acquisition personnel and contracting officers as well as scientists and engineers. Federal regulations should establish business-related education and experience criteria for civilian contracting personnel, which will provide a basis for the professionalization of their career paths. Federal law should permit expanded opportunities for the education and training of all civilian acquisition personnel.

As part of the follow-up to the Packard Commission recommendations, the Secretary of Defense was directed to provide, within 60 days, a report to the President on measures to strengthen personnel management policies for civilian managers and employees having contracting, procurement or other acquisition responsibilities (National Security Decision Directive 219 on April 1, 1986). In August 1986 the President issued National Security Decision Directive 238 to assure compliance with the Packard Commission recommendations (Appendix I-1).

In November 1986 Congress adopted the Defense Acquisition Improvement Act of 1986 P.L. 99-661, Title IX. Section 932 of this Act required the Secretary of Defense (SECDEF) to develop a plan to enhance the professionalism and career opportunities available to acquisition personnel in terms of examination, appointments, classification, training, and assignments, and examine the feasibility of designating professional positions and establishing an alternative personnel system. The plan was submitted to Congress in May 1987, as required, and is included as Appendix I-2.

The plan consisted of two initiatives. The first proposed a legislative change that would allow the establishment of a formal alternative personnel management system based on the approach of the Navy demonstration projects at China Lake and San Diego. The proposed system has four key features: pay banding, simplified classification, pay-for-performance, and market sensitivity in hiring new employees. The second initiative was a proposal to improve the education of contracting civilians by modifying Title 5 U.S.C. Section 3308 to allow the Office of Personnel Management and the Department of Defense to establish appropriate minimum educational standards for the Contracting, GS-1102, civil service series, and to revise Title 5 U.S.C. Section 4107 to allow government payment of training expenses for civilians for the primary purpose of obtaining an academic degree.

In addition, Section 934 of the Defense Acquisition Improvement Act of 1986 required the Secretary of Defense to submit to Congress a report containing a plan for the coordination of DOD educational programs for acquisition personnel. On March 2, 1988, the Assistant Secretary of Defense (Force Management and Personnel) submitted a report (Appendix I-3) setting forth the Department's plan for expanding the mission of the Defense Systems Management College (DSMC) in order to properly direct, support and coordinate the education and training of the acquisition workforce. Specifically, it institutionalized the former Acquisition Enhancement (ACE) Program Action Group as the ACE Program Office at Defense Systems Management College (DSMC), designating it executive agent for the education and training of the acquisition workforce. The plan further called for the streamlining and consolidation of the myriad existing directives, instructions, and manuals on acquisition education and training, and established a revised interim curricula of mandatory contracting courses for contracting personnel.

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PURPOSE OF THE REPORT

It is clear, given this background, that there is no lack of statutory, executive order and outside expert identification of problems and recommended changes that should be pursued to improve the quality and professionalism of the acquisition workforce. Yet despite these continued calls for improvement and the obvious changes made in the recent past, few are convinced that enough has been done. New and varied proposals to change the organization or character of the acquisition workforce have been espoused with increasing frequency.

Before considering the adoption of any of these proposals, the Committee on Armed Services believed that it was crucial to conduct an in-depth analysis of the state of the acquisition workforce and any trends that may be evident. Without such an assessment it is virtually impossible to determine cause and effect—hence to determine with any certainty that proposed solutions to this problem will bring about the desired result.

Thus, the objective of this report is to assess the qualifications and professionalism of the acquisition workforce—both present and past, military and civilian; to review the efforts of the Department of Defense and the Military Departments to establish and manage the career development of that workforce; and, where appropriate, provide recommendations for improving the quality and professionalism of that workforce. In doing this, the report will attempt to answer the following questions:

(1) Are the services appointing Program Managers, Deputy Program Managers, and contracting officers with the experience, education, and training required by law and regulation; and, in the case of Program Managers, are they being retained in those positions for the minimum 4 year period?

(2) Is there a career program structure to develop qualified and professional contracting and program management personnel—either civilian or military; and have the Department of Defense, the services, and Defense Agencies established the proper organization, management structures, and policy guidance necessary to ensure this development?

(3) Is there an appropriate mix of military and civilian personnel within the acquisition workforce?

(4) What impediments exist that must be overcome in order to develop a quality, professional workforce, and how can those impediments be overcome?

SCOPE OF THE STUDY

The answers to the questions posed will be developed in the report first by setting the stage within which the key acquisition players operate—who are these people, what is their function or role, how are they selected, and where do they fit in the organizational hierarchy (Chapter II). Because personnel management plays such a crucial role in the development and selection of the acquisition workforce, Chapter III sets the stage in terms of personnel management—the personnel organization, how that organization interfaces with the rest of the Department of Defense, and a few words about relevant government-wide and DOD personnel management policies. Chapters IV–VI will provide the data developed on the characteristics of the acquisition workforce—moving from the broadest segment—the acquisition workforce as a whole, to contracting officers and Program Managers specifically. Chapter VII will highlight the issue of professionalism of the acquisition workforce, with particular emphasis on education and training. Chapters VIII and IX deal with two vexing issues relating to the workforce—the mix of military and civilians, and compensation.

It should be noted that information provided by the services on program management, contracting, and acquisition personnel was obtained from January through June 1989. Accordingly, actions taken by the services subsequent to that time are not generally reflected in the report.

TERMS OF REFERENCE

At the outset, it is also important to note the parameters, frames of reference and limiting factors of this report.

Acquisition/Procurement Process. Although there is no clearly accepted definition of the "acquisition" process, for purposes of this report we consider the acquisition process to begin at the point when agency needs are established, presumably after a threat analysis, and to include the articulation of the user's needs in response to the evolving threat, validation of the requirements through the planning, programming, and budgeting process, concept exploration, demonstration/validation, full-scale development, full-scale production, deployment and operational support. By way of contrast, the "procurement" process can generally be described as the process beginning after a decision to procure a particular item has been made, and occurring simultaneously with each step of the acquisition process. "Procurement" includes the development of a long-term plan for selecting a source or sources, translating the government's needs into a request for a proposal from industry, selection of a contractor, and administration of the contract. Thus procurement is a subset of the "acquisition" process.

The Acquisition Workforce. In analyzing the acquisition workforce, one encounters an immediate difficulty in that the definition of acquisition workforce has never been firmly established. As a result, although there is a core group of disciplines, such as contracting, that are clearly considered part of the "acquisition workforce," the inclusion or exclusion of individuals in disciplines that are involved in the acquisition process but not of its essence, such as quality assurance, engineering or logistics, remains unsettled.

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Even within the Department of Defense, different definitions are utilized by the services and OSD. Draft DOD Manual 5000.52-M (December 13, 1988), "DOD-Wide Career Program for Acquisition Personnel," comes closest to a definition in defining the scope of the manual as applying to: military personnel in acquisition assignments and to civilian employees who are serving under career or career-conditional appointments in the competitive service and who occupy positions in the following series: GS-1102, Contracting; GS-1103, Industrial Property Management; GS-1105, Purchasing; and, GS-1106, Procurement Clerk/Assistant. It also includes those involved primarily in acquisition duties and responsibilities in the following: GS-1101, General Business and Industry; GS-1150, Industrial Specialist; GS-1910, Quality Assurance series; and, the GS-800 engineering series involved in the manufacturing, production, reliability, and quality assurance functions in the acquisition process. Beyond this, the acquisition workforce encompasses personnel involved primarily in acquisition duties in the business and financial management, program management, logistics, systems engineering and other acquisition specialty series.

This represents a significant expansion in the definition of the acquisition workforce. Prior to 1988, the Defense Manpower Data Center, which collects data about the workforce for DOD, used as a working definition of the acquisition workforce for purposes of its acquisition career program (DOD 1430.10-M-1 and DOD 1430.10-M-2), the following civilian (it did not keep data specifically on military acquisition personnel) occupational series:

Series	Title
1102	Contracting and Procurement.
1103	Industrial Property Management.
1150	Industrial Specialist.
1910	Quality Assurance.

In 1988, the Defense Manpower Data Center and the Office of the Secretary of Defense proposed an expansion of the acquisition workforce to include other series. In contrast to previous criteria, in which an entire occupational series was categorized as part of the "acquisition workforce" regardless of whether an individual actually performed acquisition duties or was assigned to an acquisition command, the proposed criteria would be based on the type of work performed and organizational assignment of individuals. The proposed categories would include personnel engaged in the following functions:

> Determination of requirements and development of specifications for weapon systems, system components, and other equipment that are fielded or in the process of being fielded, and services, except for non-developmental items;
>
> Testing of systems and equipment under development;
>
> Contract execution and administration, including quality control and inspection, audit, other enforcement of contract specifications and performance, and program funding, except for non-developmental items; and,

Overhead accounts which support acquisition at least 50 percent of the time.

Specifically excluded were "pure" logistics and research and development functions. In the case of the former, this would include the functions of cataloging, inventory control, storage and distribution of finished products received from industry, and the disposal of property. In the case of the latter, this would include personnel involved in basic research, plus exploratory and advanced development (6.1, 6.2. and 6.3A activities). Personnel in all organizations, including the Office of the Secretary of Defense (OSD), the Service Headquarters elements, and Defense agencies, both military and civilian, would be included.

As is obvious, an attempt to assess individually the quality and professionalism of these myriad factions within the acquisition workforce would entail a task of enormous proportions. Thus, while providing much data about the acquisition workforce in its entirety, and a subset of that workforce—the contracting workforce, the report focuses on three key individuals in the acquisition process: the Program Manager, the Deputy Program Manager, and the contracting officer. While an analysis of these three groups cannot be extrapolated in any scientific manner, we believe that an evaluation of personnel in these positions, when coupled with the overall data provided on the rest of the acquisition workforce, will provide a sufficient basis upon which to judge the quality and professionalism of the acquisition workforce. In so doing we of course recognize that neither a Program Manager nor a contracting officer operates independently, but of necessity, relies on a team of people including engineers, and quality, industrial, property, labor-relations, legal and other specialists.

Quality and Professionalism. In this analysis, we use a definition of quality developed by the General Accounting Office (GAO)—"the extent to which an individual has desired characteristics such as education, job related experience, specific skills, motivation, or even certain personality traits" *(Federal Workforce: A Framework for Studying Its Quality Over Time,* B-228638, August 4, 1988). Although some of these characteristics are measurable, motivation and personality traits cannot be quantified. As such, one is limited to measuring the objective indicators of quality, such as levels of education, training, and experience. While such indicators do not assure in and of themselves a person's "quality" they are the only factors capable of being measured in the aggregate.

While the federal civilian personnel system utilizes "knowledge, skills and abilities" (KSAs) to provide a measure of quality, currently only the Air Force has an automated system that aggregates data on KSAs. Consequently, we have utilized data separately generated from various data bases by the services and other sources to establish the level of education, training and experience of the workforce. Finally, as a point of reference in measuring quality, we utilize the basic criteria set forth in legislation and by the DOD itself.

"Professionalism," the second term of reference utilized, is generally defined as the conduct, aims, or qualities that characterize a profession or professional person. While membership in a profession does not guarantee "professionalism," and certainly there are many persons not in professional fields that could be characterized as conducting themselves in a professional manner, the entry criteria, required specialized knowledge, public attestation to certain ethical standards, etc., required for membership in a profession are the characteristics found in people who could be termed professionals in their career field. Professionalism is thus a measure of the attitudes, values and motivation of the personnel.

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METHODOLOGY

The information provided in this report was developed through interviews with officials within the Department of Defense and the various services, analysis of service and Department of Defense responses to oral and written interrogatories, and quantitative analysis of data provided by the services, the Defense Systems Management College (DSMC), the Defense Manpower Data Center (DMDC), the Congressional Research Service and the Bureau of Labor Statistics in the Department of Labor. In addition, a literature search and review of various historical documents was conducted. This included a review of the various Commission reports, reports of the General Accounting Office, the Rand Corporation, and the Institute for Defense Analyses, Hearings of the United States House of Representatives and United States Senate, and monographs produced by academia, the Historical Office, Office of the Secretary of Defense, Office of the Chief of Military History (Department of the Army), Naval Historical Center, Office of Air Force History, and, in academia. Reference was also made to internal Department of Defense documents (both current and historical) such as directives, regulations, instructions, correspondence, and audit reports.

In this regard, we must note that the data utilized in this report was developed, in many cases from raw statistical data, using data bases within the Department of Defense. Because of the limitations in what is reported in a systematic manner within DOD—for example, the services have not been identifying contracting officers and Program Managers in their standard reporting data systems, the data is in some cases limited.

Extrapolations from that data must be viewed in some cases with certain caveats in mind because key concepts have not been adequately identified or standardized—such as "non-major programs" and "acquisition experience." For example, DOD has not provided additional clarification or guidance as to the types of assignments and duties considered as meeting the statutory requirement of 10 U.S.C. 1622, as amended by Sec. 853, H.R. 2461 (effective July 1, 1989), for Program Managers to have "experience in the acquisition of weapons systems or related items of supply." Instead, each service is allowed to establish its own interpretation.

The Navy categorizes experience in any of 84 different Navy Occupational Billet Codes (NOBCs), either within a weapon Systems Command (e.g., Naval Sea Systems Command) or outside of the SYSCOMS, as acquisition experience. These codes include contracting, program management, research, development, test and evaluation assignments as well as more esoteric assignments such as a scientific technical intelligence officer. The Navy also recognizes

experience gained as a Commanding Officer, Maintenance Officer, Materiel Officer, or Engineering Officer as being in support and maintenance of weapon systems and thus meeting the requirement of 10 U.S.C. 1622.

The Army considers officer assignments in the following functional areas and positions as qualifying acquisition experience: Research and Development, Test and Evaluation, and Combat Development (FA 51A, B, and C); Contracting and Industrial Management (FA 97); Nuclear Weapons Research (FA 52); and, Systems Automation (FA 53), if the work is in materiel acquisition; any assignment as a Program Manager or Program Executive Officer; and, any Materiel Acquisition Management (MAM) assignment (6T). Also, all jobs in Army Materiel Command that are directly related to acquisition are considered as qualifying experience. The Army does not include support and maintenance of weapon systems or operational assignments which clearly are sustainment functions, such as logistical support of fielded weapon systems, as acquisition experience.

The Air Force requires that within the eight years of required acquisition experience, three years of experience must be in a Systems Program Office (SPO). This experience also includes two other types of assignments in laboratories, test organizations, acquisition headquarters, or operations. All acquisition experience that is credited toward the eight years must be in the system acquisition area, not the base operating support area. These qualifications are verified through the review of a formal application that documents an officer's qualifications to be considered for a leadership position as a Program Manager of a major/executive program.

Significantly, none of the services has similar criteria in place for its civilian program management personnel. This is but one example of terms and standards that are not uniform within the Department, but it is sufficient to make the point.

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CHAPTER II—ACQUISITION ORGANIZATIONS

OFFICE OF THE SECRETARY OF DEFENSE

At the present time, acquisition functions are conducted within the Department of Defense by the Office of the Secretary of Defense (OSD), by agencies reporting to OSD, and by the Army, Navy (and Marine Corps), and Air Force. A number of Defense Agencies which are shown on Exhibit II-1 also have an acquisition/procurement function, including the Defense Communications Agency (DCA), Defense Mapping Agency (DMA), and Defense Nuclear Agency (DNA). Three defense agencies have an important role in the acquisition process: the Defense Advanced Research Projects Agency (DARPA), Defense Logistics Agency (DLA), and the Defense Contract Audit Agency (DCAA). The first two report to the Undersecretary of Defense (Acquisition) and the latter to the OSD Comptroller.

The Secretary of Defense is supported in the management of the acquisition process by the Under Secretary of Defense for Acquisition or USD(A) whose organization is shown in Exhibit II-2. In response to a recommendation of the Packard Commission, the position of USD(A) was mandated by Public Law 99-348.

This position and its subordinate offices, such as the Assistant Secretary of Defense (Production and Logistics) and the Director, Program Integration, are the offices in OSD primarily concerned with the acquisition process.

The USD(A) was designated by law as the "Defense Acquisition Executive" (DAE) in 1986. The duties of this position include: supervising DOD acquisition; establishing acquisition policies; and supervision of acquisition personnel in the Office of the Secretary of Defense. Additionally, the Defense Acquisition Executive was given the "authority to direct the Secretaries of the military departments and the heads of all other elements of the Department of Defense with regard to matters for which the Under Secretary has responsibility." (10 U.S.C. § 133(b)(4)) Section 901 of the Defense Acquisition Improvement Act of 1986 (P.L. 99-661) designates the USD(A) the senior procurement executive for DOD for purposes of Section 16(3) of the Office of Federal Procurement Policy Act (41 U.S.C. 414). Furthermore, the USD(A) has responsibility for career program policy, including the training and career development of acquisition personnel.

DEPARTMENT OF DEFENSE

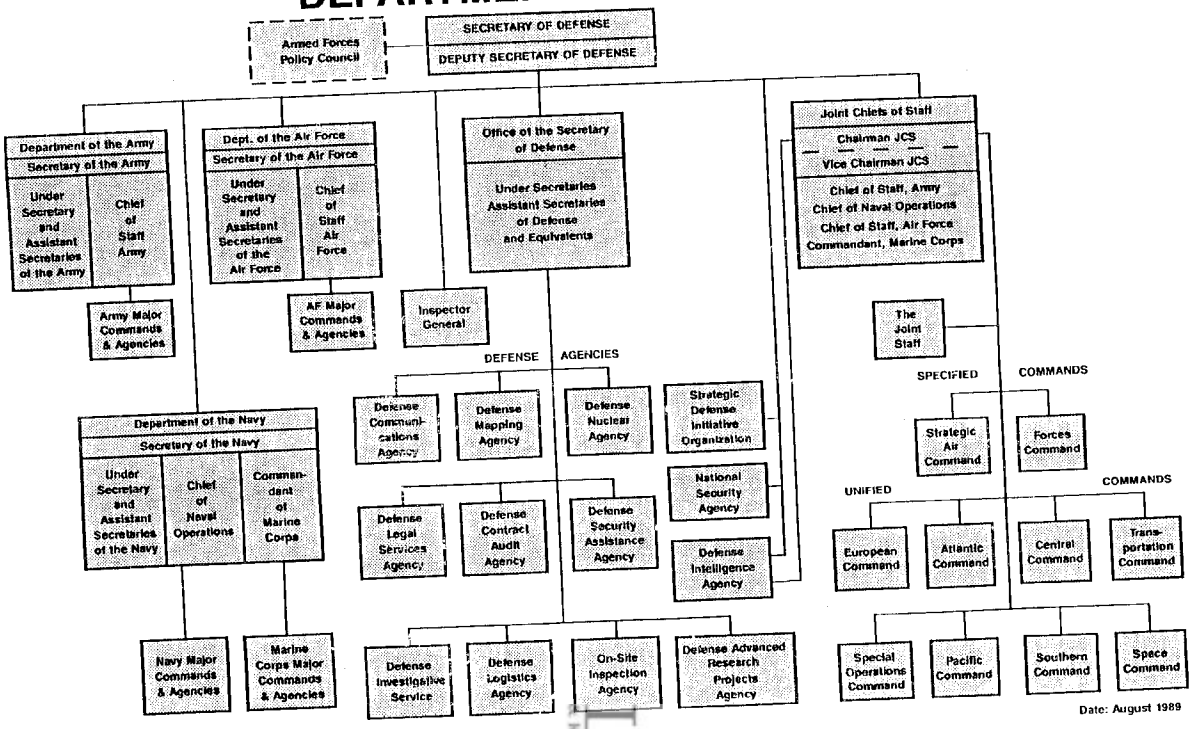

EXHIBIT II-1

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OFFICE OF THE SECRETARY OF DEFENSE

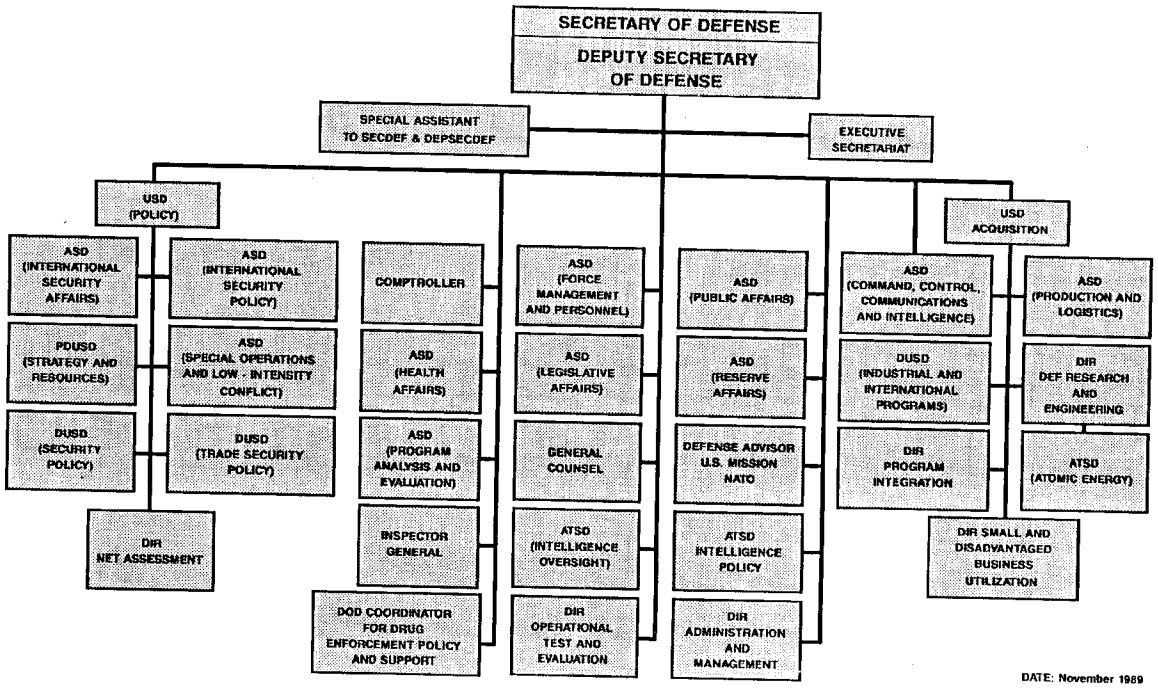

EXHIBIT II-2

MILITARY SERVICES

Although each of the services organize their acquisition functions differently (reflecting historical and mission differences), there are some general characteristics shared by each. Within each Military Department, there is a senior civilian official—the Service Acquisition Executive (SAE)—who is responsible for acquisition matters within that Department. In the Army and Air Force, the SAE also serves as the senior procurement executive, while in the Navy, the SAE and senior procurement executive are not the same individual. Exhibit II-3 depicts these key acquisition leadership positions in OSD and each of the Department secretariats.

Program management has been primarily conducted through the procurement or "systems" commands, although the Department is in the process of implementing a new program management structure that will circumvent the major procurement commands and place Program Managers under a Program Executive Officer that reports directly to the Service Acquisition Executive.

Because program management requires accomplishment of tasks that require support from various functional organizations (both engineering and business related), most program management organizations are currently either project or matrix organizations as opposed to functional organizations.

Functional Organization. A group of specialists which supports and is part of a larger organization or activity is a functional organization. This is a traditional form of division of labor within any organization and represents an assumption that consolidation of persons with similar specialties or functional disciplines is the most effective way to utilize their expertise. For example, contracts specialists, engineers, attorneys, etc. are generally organized into separate functional organizations.

Matrix Organization. The typical DOD program management office follows a matrix management approach. The Program Manager is supported by certain core offices in which the personnel are assigned exclusively to the Program Manager, such as Program Control and Configuration Management, and by organizations representing the various functional disciplines that are matrixed to the Program Manager, as shown in Exhibit II-4.

EXHIBIT II-3

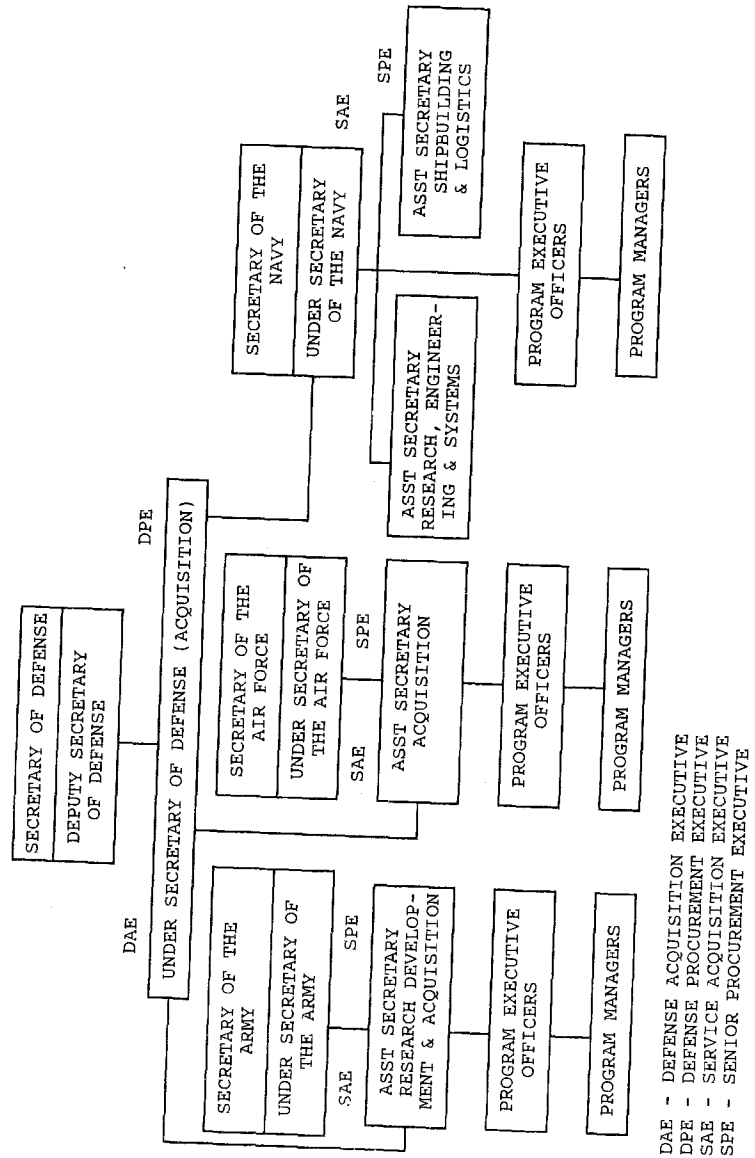

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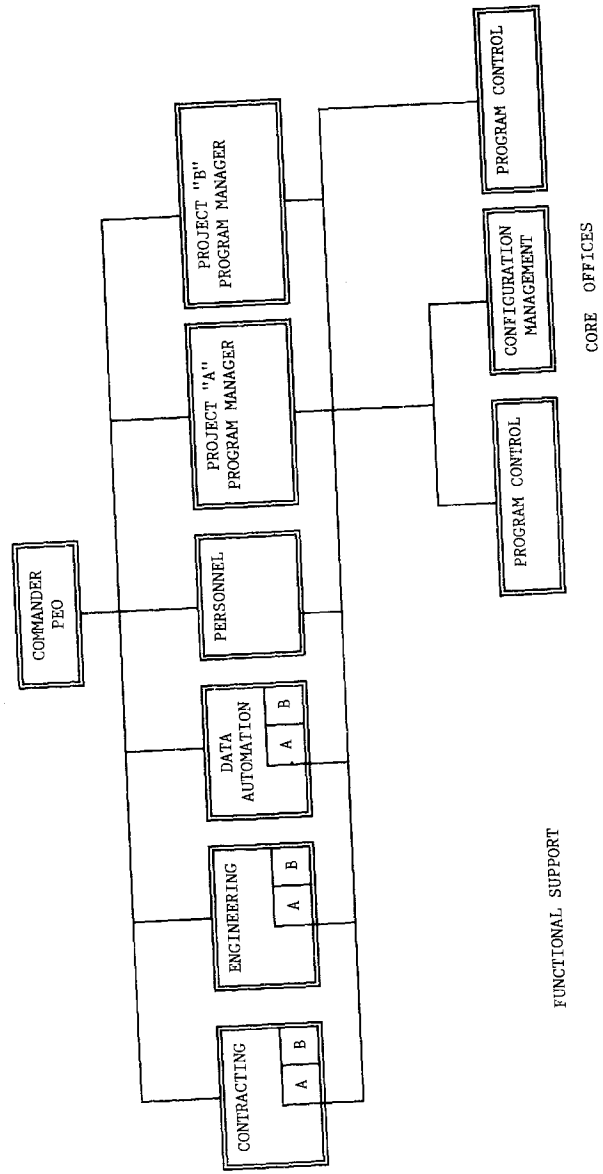
EXHIBIT II-4

TYPICAL MATRIX ORGANIZATION



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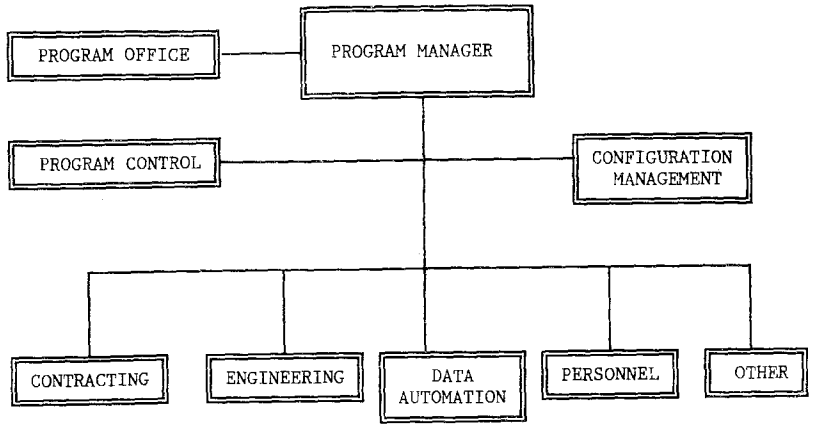
The "core" offices perform functions that are integral to the program office and work only for the Program Manager. The matrixed organizations are those that provide support to the program office in the various disciplines or functions, such as Contracting, Engineering, Personnel, etc. These matrixed organizations work for both the head of their functional organization as well as the Program Manager that they support. People in the matrixed organizations may be physically collocated with the Program Manager, and in that case typically work full-time on that program (although they still receive administrative and technical direction from their functional chief), or may stay within the their own functional location and be dedicated to the program either on a full-time basis or on a task basis.

Program or Project Organization. In a program or project-based organization, as opposed to matrixed program management, one finds all the necessary functional resources mobilized in a self-contained, vertically-arranged organization, as seen in Exhibit II-5. Small groups of personnel from the appropriate functional disciplines are assigned to the program office until completion of the project. The internal organization of the project office is functional, with the various functional sub-units reporting to the project or Program Manager.

EXHIBIT II-5

TYPICAL PROJECT ORGANIZATION



The experience of developing technologically advanced weapon systems as well as large scale projects in the domestic economy led to the development of program management as a management and organizational construct. The organization and management of the Manhattan District Project to develop the atomic bomb in World

War II remains the example of program or project management par excellence. On the civilian side, the development of the Tennessee Valley Authority (TVA) was an even earlier example of the project management concept.

Within the Department of Defense, the Air Force took the lead in using program management to acquire weapons systems. The Air Force first applied the weapon system program management approach in its acquisition of the F-102 aircraft from Convair during the early 1950's. This new approach brought together the various system component items, such as the engine, airframe, etc., and rather than developing them independently, established a program office to manage the entire weapon system acquisition process—emphasizing the compatibility of subsystems and components. This development has been characterized as "the biggest formal change in Air Force acquisition practice during the cold war era" (Thomas McNaugher, *New Weapons Old Politics: America's Military Procurement Muddle, 1989).* In the late 1950's, the Air Force Air Research and Development Command, forerunner to Air Force Systems Command, institutionalized the centralized program management approach for the business and technical management of selected acquisition tasks through its "375 series" of regulations and manuals, which applied initially to the space and missile programs. The employment of systems management was a key to the successful development of the Atlas and Titan Intercontinental Ballistic Missiles (ICBM).

The Navy began using the program management approach with the creation in 1955 of the Special Projects Office (SPO) for the development of the fleet missile system, notably the Polaris missile program. This was a departure from the existing approach, which was to allow the Navy Bureaus (Ordnance, Aeronautics, etc.) to have "cradle to grave" responsibility for items within their areas of technical expertise. Weapons that cut across the technical disciplines led to conflicts among the bureaus, and difficulty in integrating the components into the weapon system. The creation of the projects office, reporting outside the bureau system, was designed to obviate these conflicts.

By the early 1960's, each Service was organizing program offices for managing the systems acquisition process. Some offices were highly integrated; others employed a matrix organizational structure; and others continued to rely on traditional functional support as needed. In 1965, in an effort to further improve the management of the defense systems acquisition process, Secretary of Defense Robert S. McNamara directed the services to apply the project manager concept to all major systems development efforts with the issuance of DOD Directive 5010.14, "System/Project Management," May 4, 1965. Since that time the organizational structure of program offices has been relatively stable and the focus has shifted to concern about Program Manager qualifications.

Contracting organizations support both the weapons system acquisition process, and provide field level support at all organizational levels. Systems contracting is centralized, and has typically been primarily conducted within a major procurement command in the service, such as Air Force Systems Command, or Army Materiel Command. At the operating levels contracting is conducted by

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Directorates of Contracting who work for the Commander of the installation or other organization that the office is within. The great majority of contracting organizations are engaged in field level contracting, although the majority of people are involved in major systems acquisition.

Contracting authority flows from the Service Secretary to the Heads of Contracting Authority, typically Commanders of the various major commands within the service, and from them it is further delegated. Although contracting authority typically flows parallel to the chain of command, responsibility for contract execution is through the chain of command.

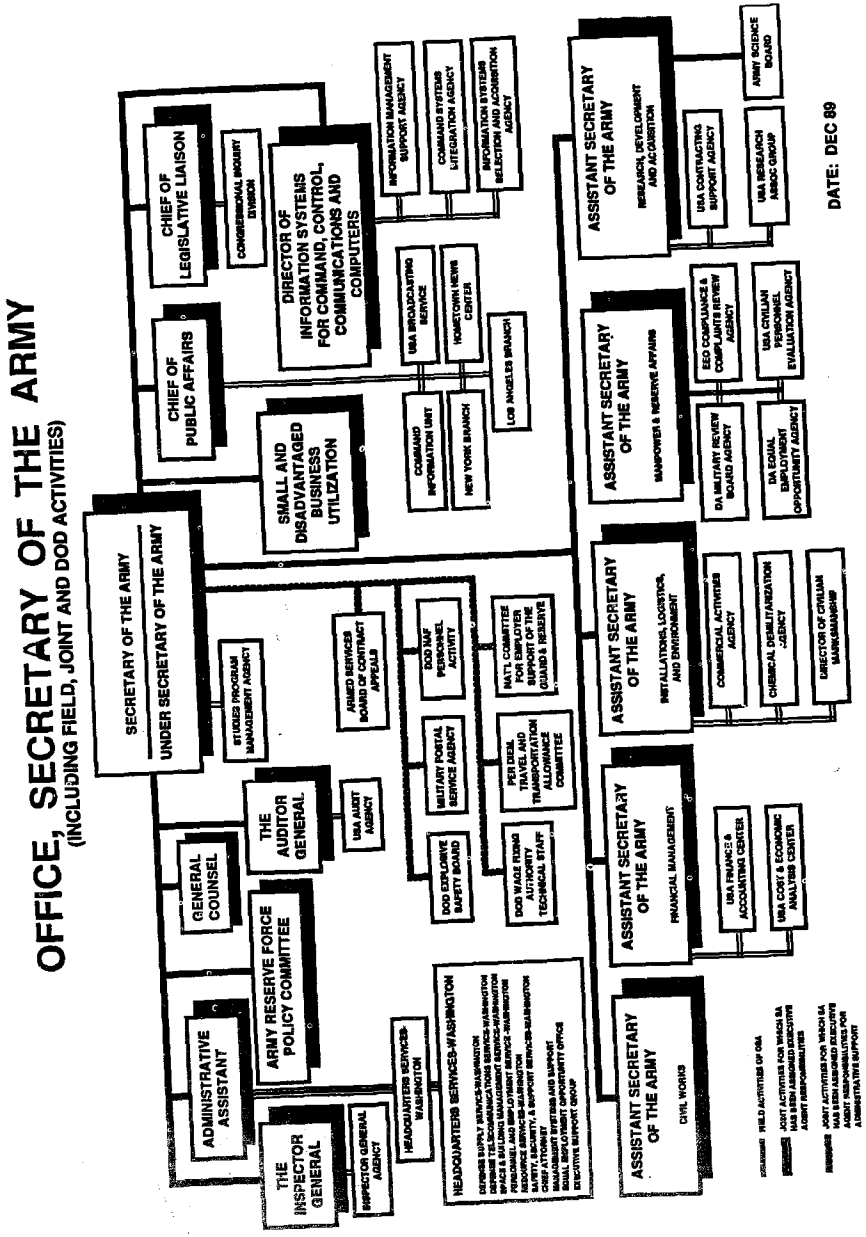
Despite these similarities, there are distinct organizational differences between each of the Services and DLA. The variety in organizational structure between the three services is reflected in the difference in number of contracting organizations world-wide: the Army has over 250, the Navy over 900, and the Air Force over 200. The following sections will provide greater detail on these distinctions.

Army Acquisition Organization

The Army, like the other services, has organizations to conduct the acquisition of weapons systems and other end items, the support of research and development, and centralized wholesale logistics support. In addition, the Army has established contracting organizations to provide field or retail level support—contracting activity classified as "post/camp/station" in nature. The contracting organization and function transcends the program management organization of systems acquisition organizations.

Acquisition management, to include contracting and program management, falls under the purview of the Army Secretariat, which is depicted on Exhibit II-6. Responsibility for personnel as well as contracting for the Corps of Engineers and Health Services Command are found within the Army staff.

EXHIBIT II-6



The Assistant Secretary of the Army for Research, Development, and Acquisition (ASA (RDA)) is the Army Service Acquisition Executive (known as the Army Acquisition Executive (AAE))and heads the Army's acquisition structure. He or she is responsible for developing policies and standards for acquisition; procurement and contracting; technology base; program evaluation; research, development and acquisition planning and programming; and for overseeing weapon systems reliability and maintainability.

As shown in Exhibit II-7, the ASA (RDA)'s organization is structured around five major offices. The procurement office oversees the management and execution of Army contracting functions, including contract policy development, contract placement and administration, and contracting program evaluation, organization and staffing. The research and technology office directs and manages the Army's basic research and development activities, oversees space and strategic systems, and assesses the Army's technology base investment. The program evaluation office formulates policy and establishes criteria for program evaluation, baseline development, and reporting procedures, and develops program executive office charters. The plans and programs office provides guidance to field activities on preparing, developing, and justifying annual budget and program estimates; develops Army Acquisition Executive policy; and monitors program and budget development through the Office of the Secretary of Defense and congressional hearings. The systems management office oversees aviation, missiles, air defense, and ground combat systems and coordinates programming and budgeting activities and milestone reviews for these programs.

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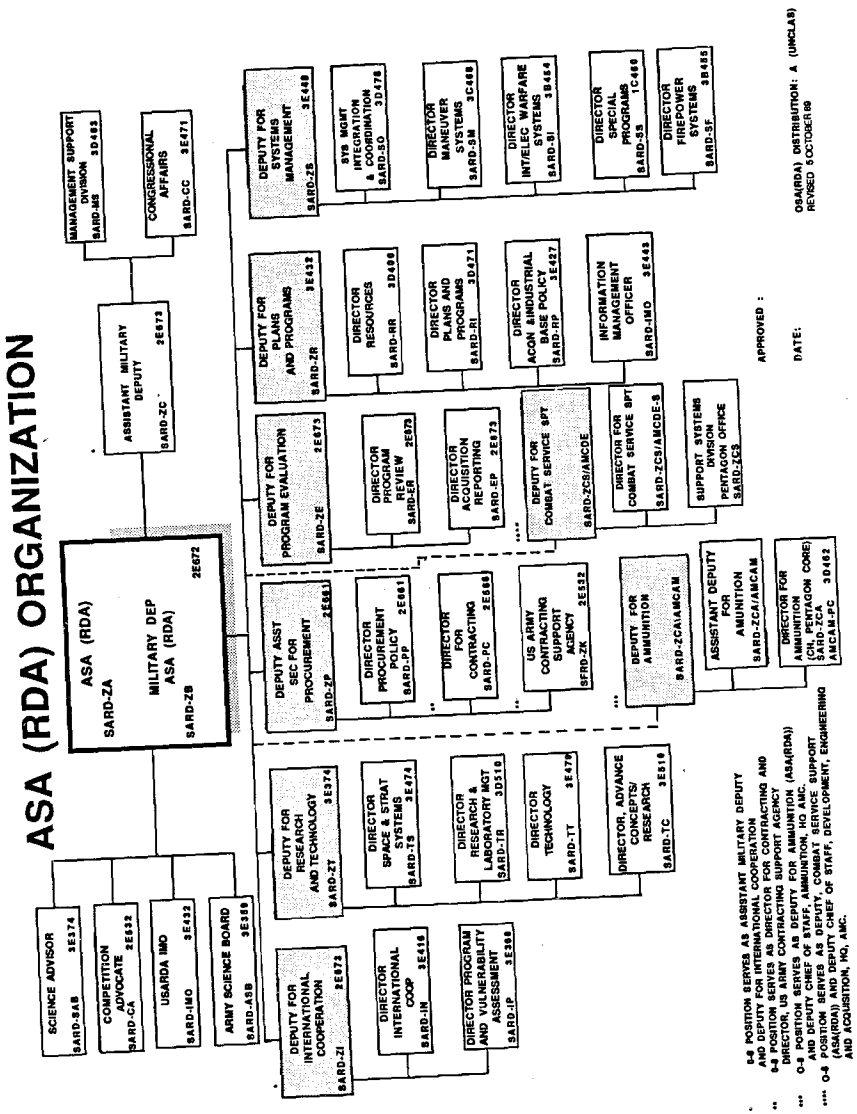
EXHIBIT II-7



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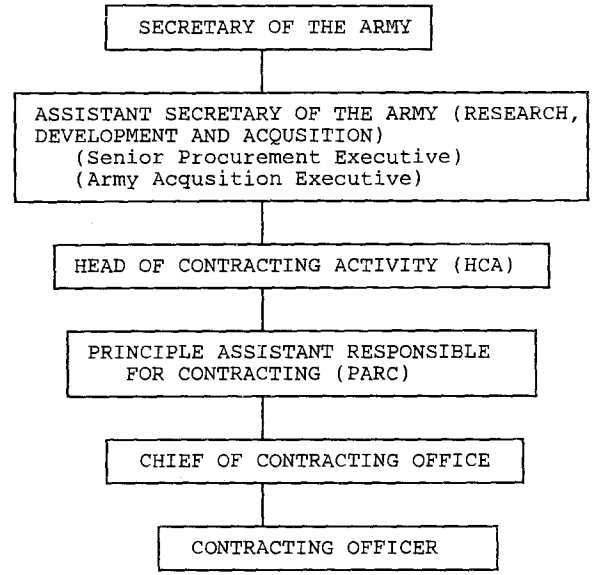
Army Contracting Organizations

Reflecting the global mission and concomitant deployment of Army forces, there are over 250 Army contracting organizations world-wide. The largest number of organizations are formed to support installation or post contracting. However, the largest number of personnel and dollars are involved in systems and central contracting.

EXHIBIT II-8

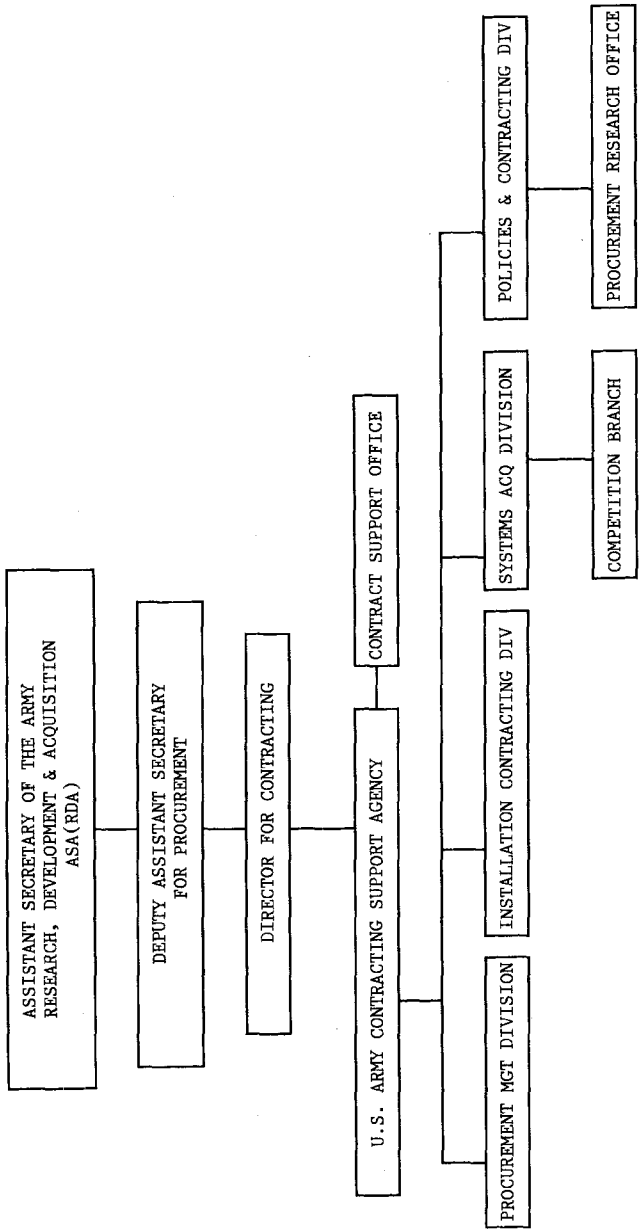
ARMY CONTRACTING CHAIN OF COMMAND



Contracting policy and authority flow hierarchically from the Secretary of the Army down to the contracting officer, as depicted in Exhibit II-8. Within the Office of the Assistant Secretary of the Army (Research, Development and Acquisition) is the Deputy Assistant Secretary for Procurement, a career Senior Executive Service position. The Deputy Director of the Contract Support Agency represents the Army on the Defense Contracting Career Management Board (DCCMB), formerly the Defense Contracting and Acquisition Career Management Board (DCACMB). Within this Deputate, there are two Directorates, one for Procurement Policy (headed by a Senior Executive Service civilian) and one for Contracting (headed by a Major General). The Director for Contracting also serves in a "dual hat" capacity as the Director of the Contracting Support Agency, a field operating activity reporting to the Secretariat. An overview of the Army Headquarters contracting organization is provided in Exhibit II-9.

EXHIBIT II-9

HQ U.S. ARMY CONTRACTING ORGANIZATION



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Within the Continental United States, there are five Army Major Commands (MACOMs), all of which have contracting organizations. Major contracting missions overseas are conducted in support of US Army Europe (USAREUR), US Army Western Command (WESTCOM), US Army South (USARSO), and Eighth US Army in Korea (EUSAR). The US Army Corps of Engineers has contracting responsibility for both DOD construction and a civil works mission and is organized accordingly. The Army Health Services Command is responsible for contracting for medical supplies because medical logistical support is outside of the standard Army logistical system. The Army also has responsibility for providing contracting support to the National Guard through the National Guard Bureau.

Except for the Corps of Engineers, Health Services Command, and the procurement commands, most other contracting activities are organized to perform contracting actions necessary to support operations at the installation level. Even within Army Materiel Command and other procurement commands, there are contracting organizations to provide installation level contracting support for their ranges, arsenals, depots and so forth.

Heads of Contracting Activity. Contracting authority flows to Heads of Contracting Activities (HCAs), which have received delegated contracting authority from the Secretary of the Army. Typically, these HCAs are commanding generals of Major Commands (MACOMs). Exhibit II-10 shows, as an example, the flow of command and contracting authority to the Commanding General of Training and Doctrine Command (TRADOC). The Commanding General, acting as HCA, delegates contracting authority to the Directorates of Contracting at the 19 TRADOC contracting activities, and to all contracting officers (typically the appointment of contracting officers is done by the Principal Assistant Responsible for Contracting as the HCA's designee). Exhibit II-11 indicates the 28 HCAs within the Army, receiving their authority from the Senior Procurement Executive—the Assistant Secretary of the Army (Research, Development and Acquisition). The numbers within each organization reflect the number of contracting organizations assigned to that MACOM.

FLOW OF COMMAND AND CONTRACTING AUTHORITY

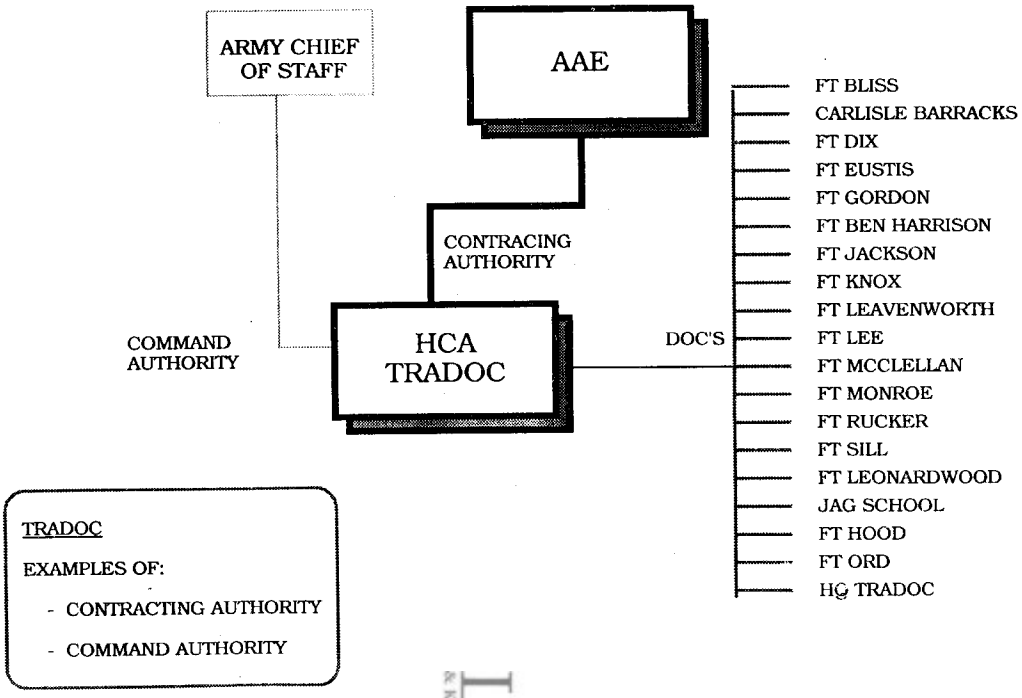

EXHIBIT II-10

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ARMY CONTRACTING STRUCTURE

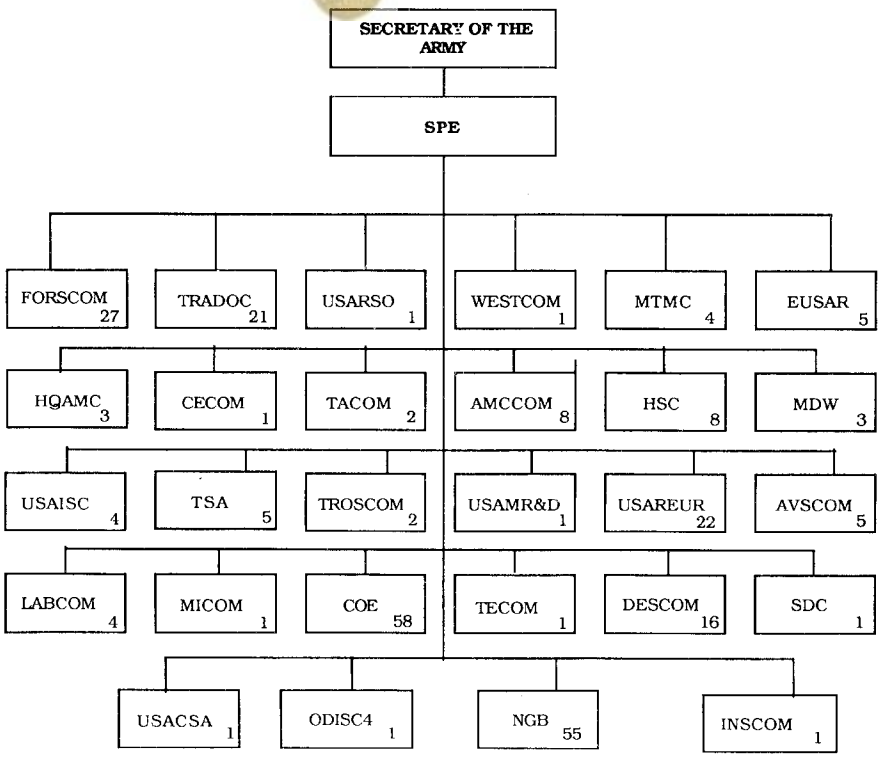

EXHIBIT II-11

Principal Assistants Responsible for Contracting. The Head of the Contracting Activity (HCA) also appoints to his/her staff a Principal Assistant Responsible for Contracting (PARC), who is responsible for oversight and administration of the contracting activity and advises the HCA on contracting matters. The PARC is required to be organizationally located at the headquarters of the contracting activity with direct access to the HCA on matters within their purview and is to be at the same level as other functional chiefs of the headquarters staff.

Central/System Contracting. Within the procurement commands, such as Army Materiel Command, there is a different organizational structure, reflective of the important role of contracting to acquisition. Exhibit II-12 shows the Procurement Directorate at Army Missile Command (MICOM). Here one finds an organization of procurement divisions in the matrix support concept with contracting personnel assigned accordingly. For example, Procurement Division "C" is matrixed to provide contracting support to the HAWK, TOW COBRA, and PATRIOT weapon systems.

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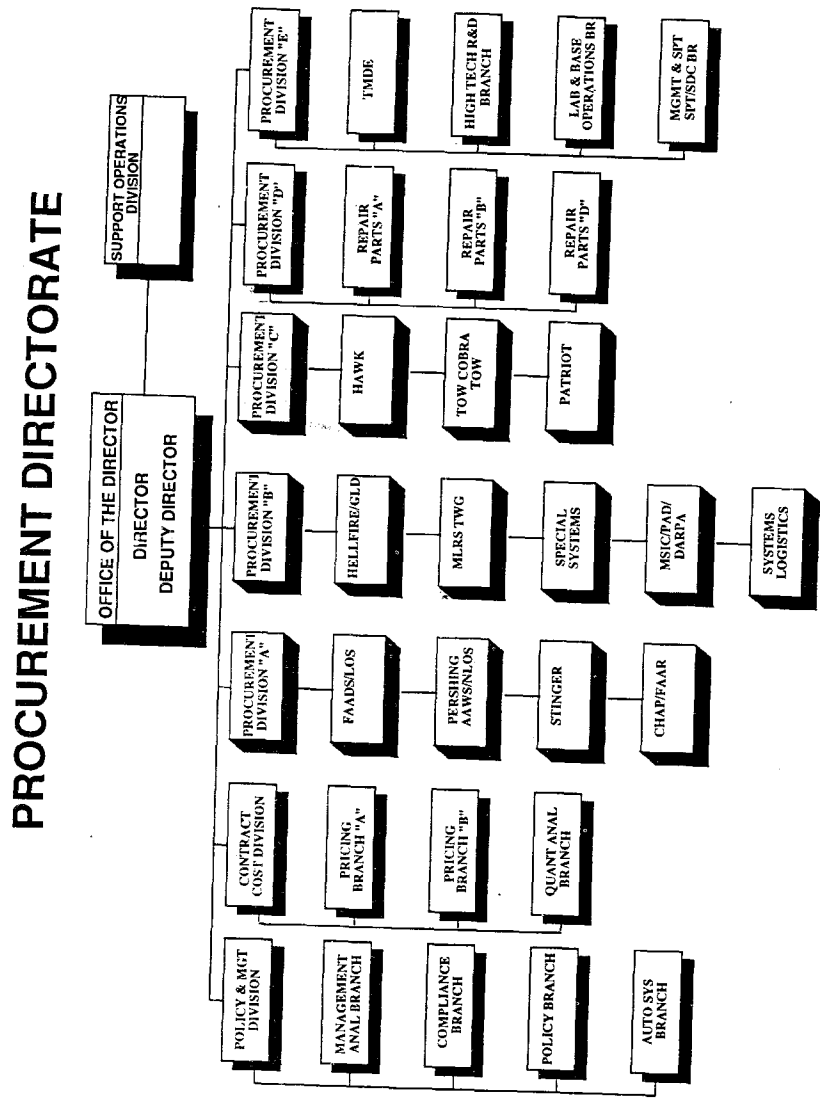
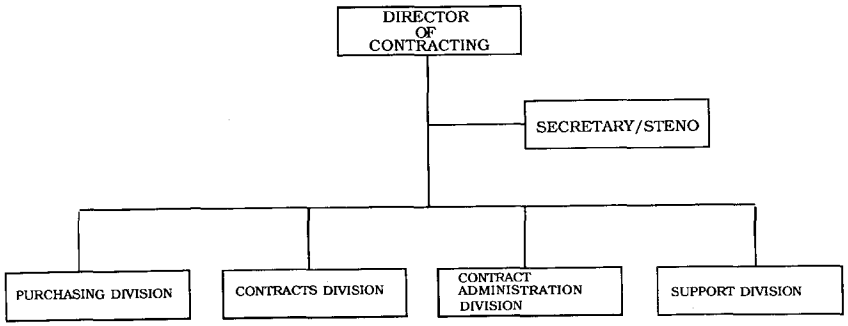
EXHIBIT II-12



Installation Level Contracting. Contract execution and operations are conducted by Directorates of Contracting at the operating level. The Director of Contracting works for the commander of the organization. Exhibit II-13 indicates the organization of a typical Army contracting office at installation level. The office has a Purchasing Division responsible for accomplishing small purchase actions, currently under $25,000. A Contracts Division is responsible for executing all contracts over $25,000 and a Contract Administration Division for conducting all post-award activities. Finally, there is a Support Division responsible for providing data processing and clerical support.

EXHIBIT II-13

TYPICAL CONTRACTING OFFICE



Army Program Management Organizations

Program Managers and their attendant acquisition support personnel are predominantly located within the Army Materiel Command, the Army Information Systems Command and the Army Strategic Defense Command—the Army's "procurement" commands, as defined by 10 U.S.C 1621. Additional acquisition and program management personnel may be found in the Army Secretariat, US Army Medical Research and Development Command, and in the Army Training and Doctrine Command (TRADOC).

Procurement Commands. The Army Materiel Command (AMC) is generally responsible for research, development, test and evaluation (RDT&E), systems acquisition, quality assurance, international cooperative research and development, and logistical support of weapon systems and equipment that has been fielded except for those items specifically assigned to other MACOMs such as Information Systems Command.

AMC is organized into 9 Major Subordinate Commands (MSCs) (Exhibit II-14) as follows: Depot Systems Command (DESCOM), Ar-

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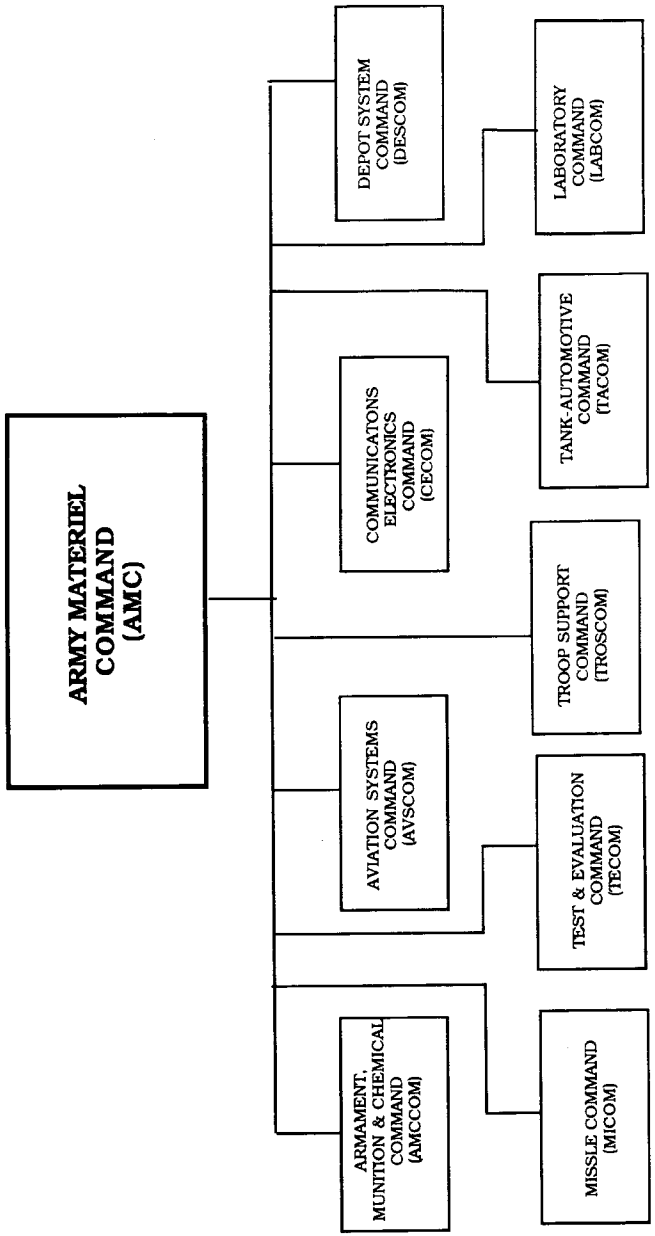
mament, Munition, and Chemical Command (AMCCOM), Aviation Systems Command (AVSCOM), Communications-Electronics Command (CECOM), Laboratory Command (LABCOM), Missile Command (MICOM), Tank-Automotive Command (TACOM), Test and Evaluation Command (TECOM), and the Troop Support Command (TROSCOM). Within the Major Subordinate Commands there are 9 depots, 3 arsenals, 5 laboratories, one research office and one research and development center, 4 proving grounds and one test range, one ammunition plant, and 3 Army Plant Representative Offices (ARPROs).

EXHIBIT II-14



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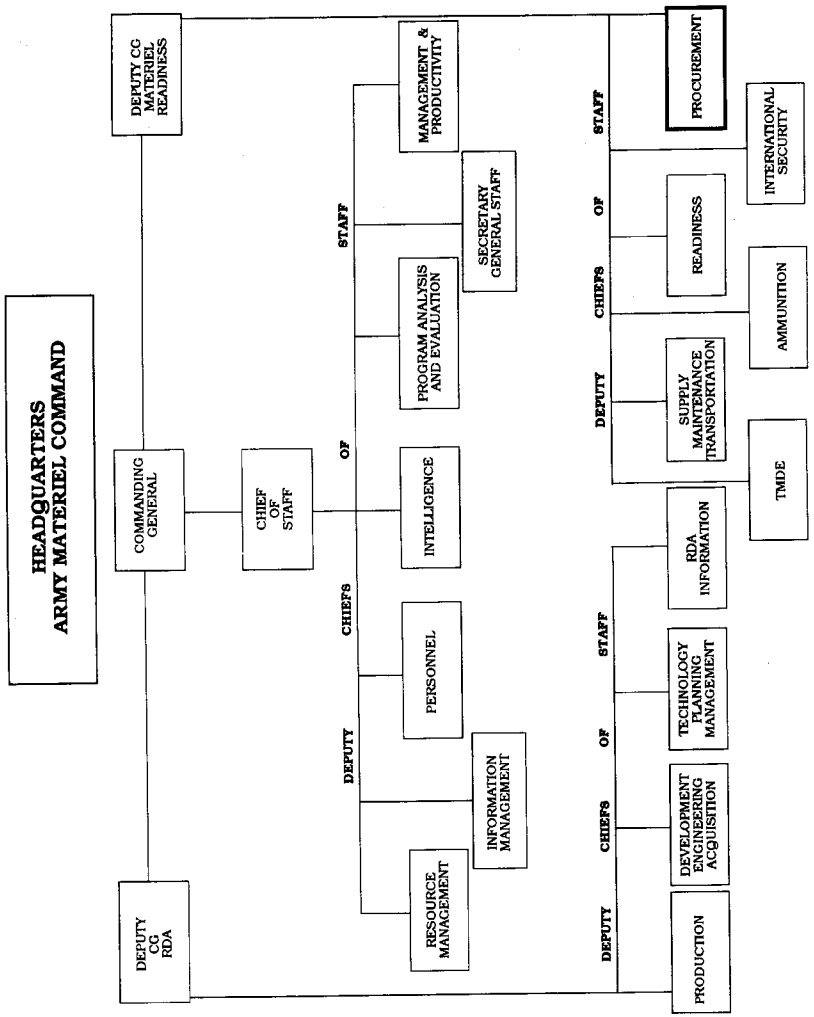
Headquarters Army Materiel Command is organized into three major components in addition to the traditional personal and special staff elements (Exhibit II-15). There are two Deputy Commanding Generals, one for Research, Development, and Acquisition, and the other for Materiel Readiness. Most of the acquisition functions such as program management, engineering, product assurance and production are organized under Deputy Chiefs of Staff (DCS) reporting to the Deputy Commanding General (Research, Development and Acquisition). The Deputy Chief of Staff for Procurement, however, reports to the Deputy Commanding General (Materiel Readiness). The DCS for Procurement, a civilian Senior Executive Service official, serves as the HCA for AMC. The PARC is the Assistant Deputy Chief of Staff for Procurement (a colonel).

EXHIBIT II-15



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Tank-Automotive Command's (TACOM) organization serves to illustrate the relationship between the Program and Contracting Offices (Exhibit II-16) and represents a "typical" Major Subordinate Command (MSC) within Army Materiel Command. Special personal and key staff functions, such as the Director of Civilian Personnel, report directly to the Commanding General as well as do the commanders of the Lima Army Tank Plant and Detroit Arsenal Tank Plant. There are also two Deputies, a Deputy for Research, Development and Engineering, and a Deputy Commanding General for Procurement and Readiness. The former is headed by a civilian and is responsible for engineering, development, and program management functions. The latter is a Brigadier General who has purview over the Directorate of Procurement and Production. The Commander of TACOM is the HCA, and the PARC is the Director of Procurement and Production, a Senior Executive Service civilian. The organization of the Procurement and Production Directorate is shown at Exhibit II-17.

ARMY TANK AUTOMOTIVE COMMAND

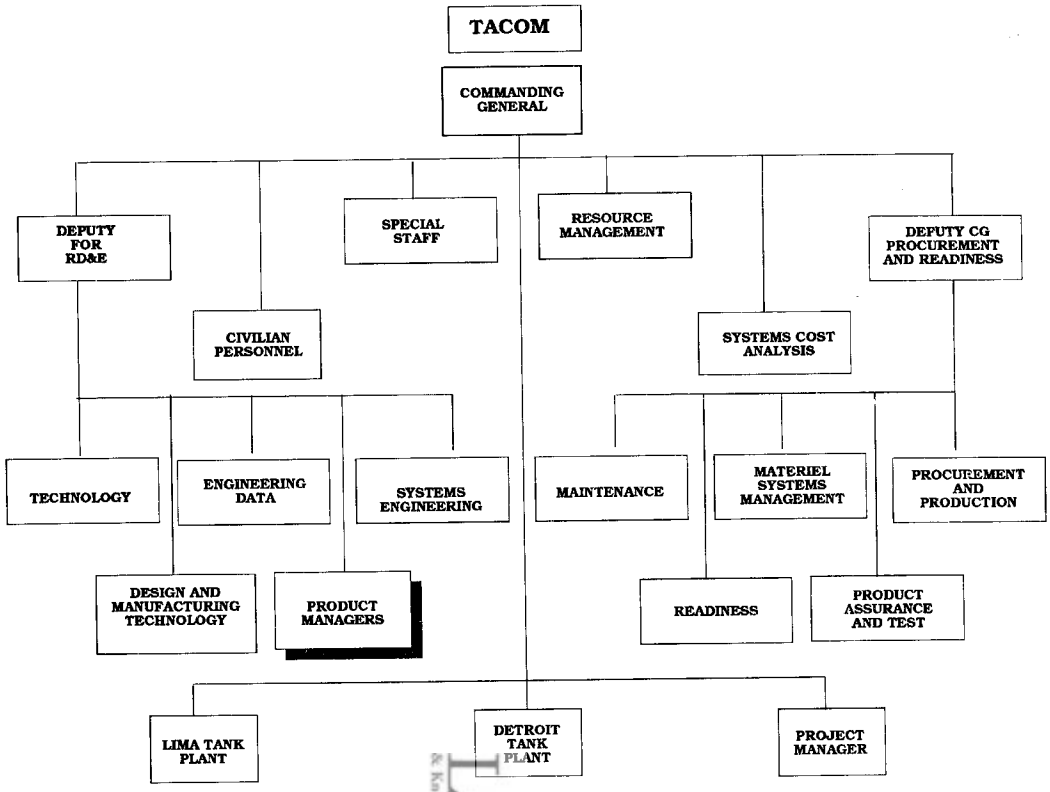

EXHIBIT II-16

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TACOM PROCUREMENT AND PRODUCTION DIRECTORATE

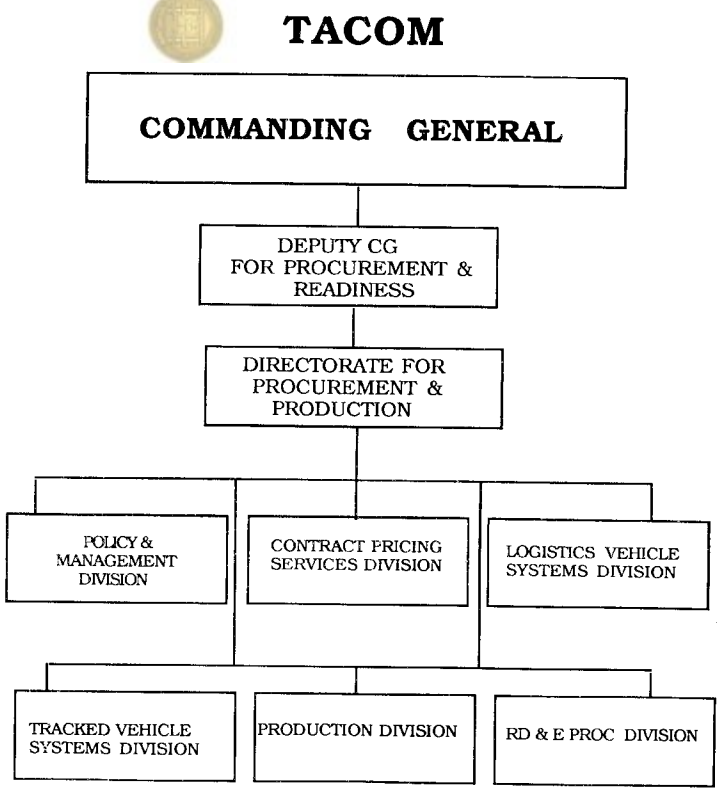
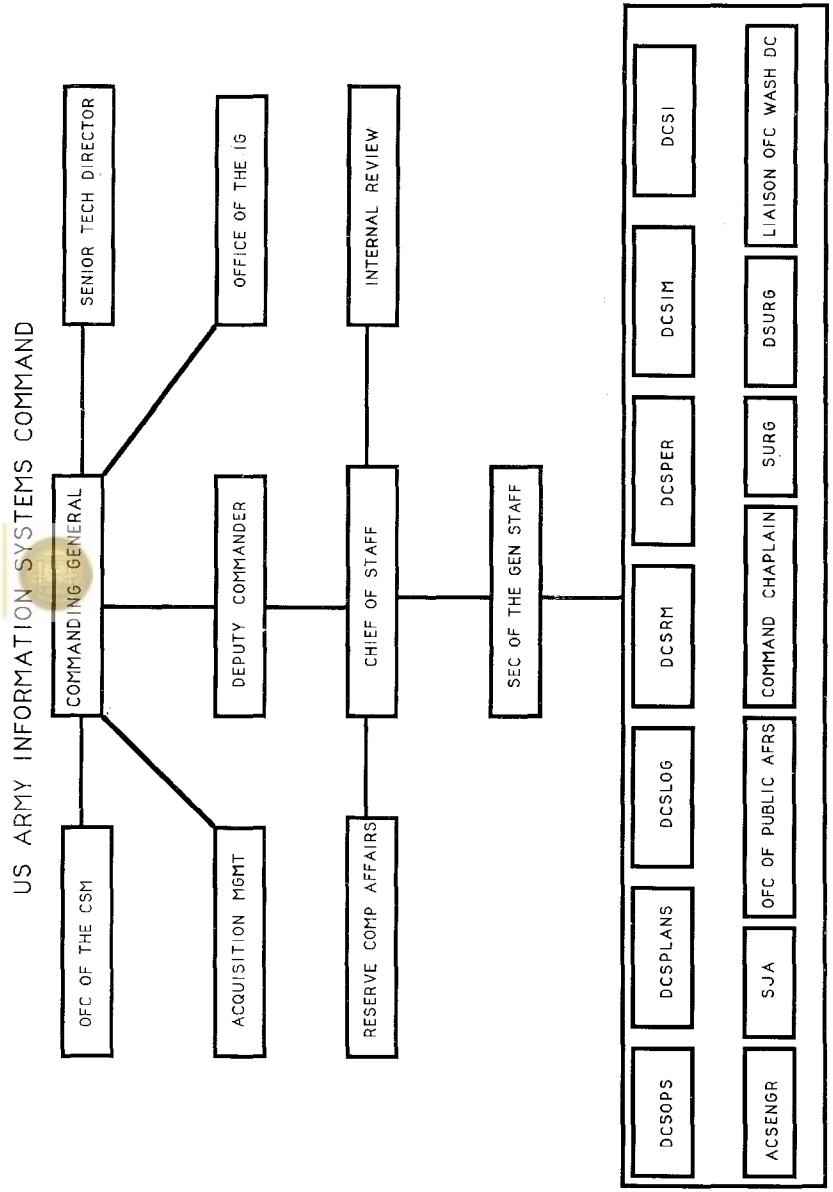


EXHIBIT II-17

The Army Information Systems Command (Exhibit II-18) is organized into 14 subordinate commands and Field Operating Activities. This Command is an operational command responsible for Command, Control, and Communications (C3) and data automation within the Army. Concomitantly, it is responsible for the acquisition of necessary data automation and communication systems within the Army.

EXHIBIT II-18



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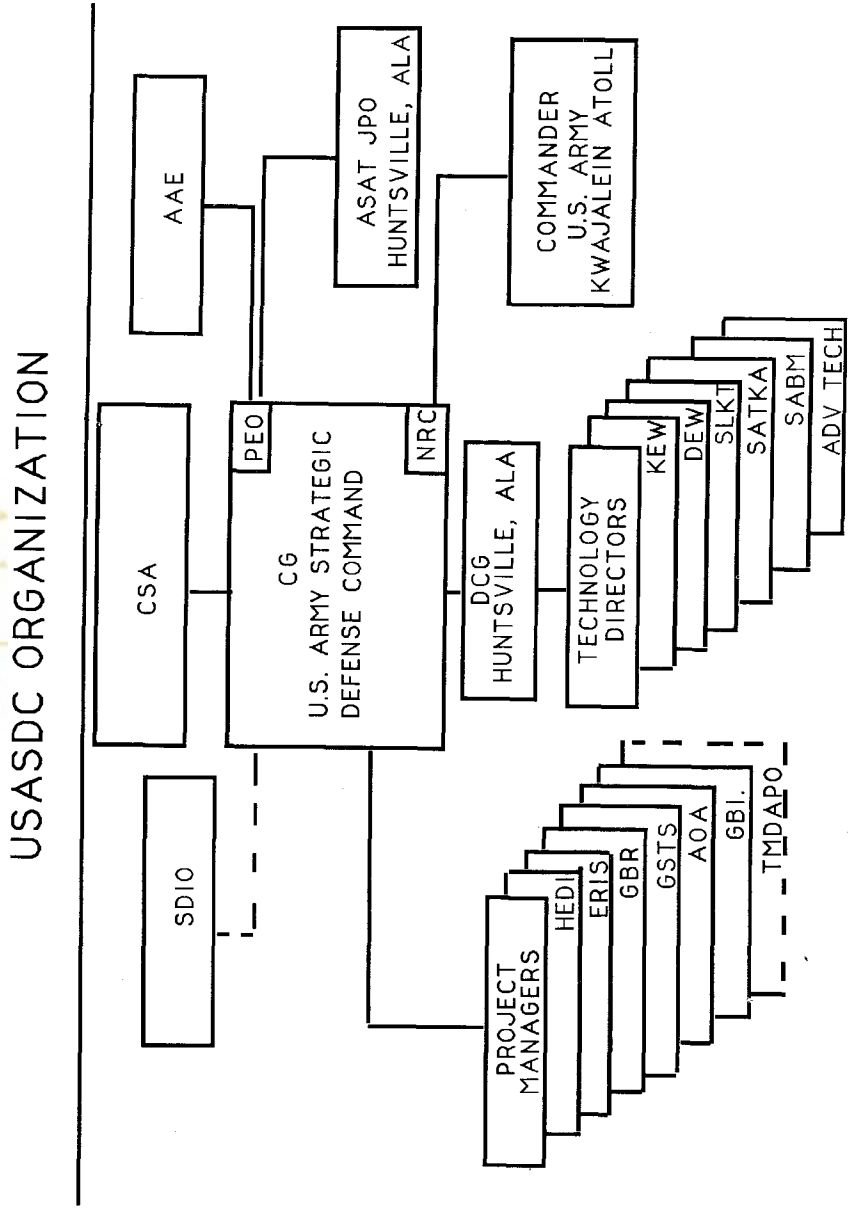
The Army Strategic Defense Command (USASDC) is responsible for the Army's role in the Strategic Defense Initiative Program. It is organized (Exhibit II-19) into ten project offices such as the Ground Based Laser Project Office. There is one Program Executive Officer for these Project Offices. There are also six Directorates responsible for various systems of the overall SDI architecture, such as the Directed Energy Weapons Directorate. These are supported by functional organizations, such as the Test and Evaluation Office and the Contracting and Acquisition Management Office.

EXHIBIT II-19



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Program Offices. Program Offices are normally organized in a matrix support framework. Personnel from various acquisition functions may be assigned or matrixed to the Program Office. The decision as to how many and what types of personnel that will be "matrixed" to the Program Office is negotiated between the PEO and the MSC commander and depends on the stage of the life cycle in which the program finds itself. Typical matrix support to a Program Office includes the following functions: contracting, quality assurance, financial management, personnel support, travel, and legal. Various functions and disciplines in Major Subordinate Command functional organizations, such as research and development laboratories, may be called on to provide technical support, as needed.

Army Acquisition Management Structure

Exhibit II–20 shows the organization of the Program Executive Officers and Program Managers and their relationship to the traditional Army organization command structure. Army Materiel Command has ten Program Executive Officers for 94 weapon system project offices. Information Systems Command has two Program Executive Officers for 31 Project Offices. Program Executive Officers are organized by broad mission or functional role. For example, within Army Materiel Command there is a Program Executive Officer for Heavy Force Modernization. Various land heavy weapon system Program Managers, such as the Program Managers for the Abrams Tank and the Armored Family of Vehicles report to this Program Executive Officer.

The Army has designated some non-major program offices as non-executive program management offices. These are shown at Exhibit II–21. There are 63 non-executive programs: 3 have Program Managers, 19 have project managers and 41 have product managers. They are not managed in the PEO structure; rather, they report through the Major Subordinate Command (MSC) chain of command.

EXHIBIT II–20

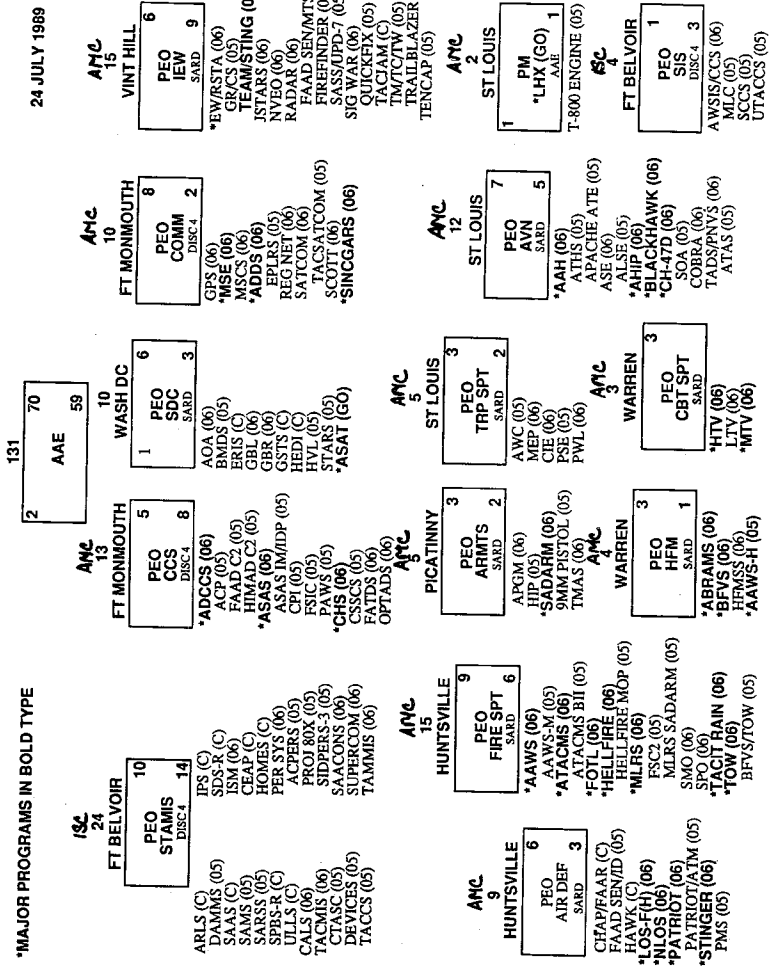

EXHIBIT II-21

PROGRAM MANAGED: 3
PROJECT MANAGED: 19
PRODUCT MANAGED: 41
TOTAL NON-EXECUTIVE: 63

24 JULY 1989
*MAJOR PROGRAM IN BOLD TYPE

CURRENT NON-EXECUTIVE PROGRAMS

ISC (17: 4 / 13)

DCASS (06)
AIME (C)
ASCP (05)
CTMP (05)
DDN (05)
JSCP (05)
JTU (C)
RC (C)
DCATS (06)
ATCS (C)
CEATS (C)
DSCSI (C)
SPPS (C)
PSATS (05)
TNCPT (05)
ETS (06)
TACCIMS (06)

AMC (35: 2 / 11 / 22)

AMCCOM
AMMOLOG (06)
BIN MUN (06)
FUZES (05)
MARK 19 (05)
MCD (06)
NBC DEF (06)
SMOKE (06)
MORTARS (05)

AVSCOM
COMINT/EW (05)
ELINT/SURV (05)
FIXED WING (05)
LOH (05)
SPO-132 (05)
SPO-133 (05)
SPO-A200 (06)
UH-1 (05)

CECOM
JASORS (05)
TMDE (06)
ATSS (05)
TEMOD (05)
TPS (05)

MICOM
PERSHING (06)
INF TREATY (05)
***JTMD (06)**

TACOM
CCE/SMHE (05)
LAV (USMC)
M9 ACE (05)
M113 FOV (05)

HQ, AMC
NUC MUN (06)
TRADE (06)
ARD (05)
AVD (05)
CTC (05)
GFD (05)

USASAC
SANG (GO)

DCSOPS (6: 1 / 2 / 3)

JTFP (GO)
CAC (C)
SSP-S (05)
CTIS (C)
DTSS (C)
QRMP (C)

MTMC (3: 1 / 2)

CFM (05)
TC ACCIS (06)
TOPS (05)

USA FDSA (1: 1)

TAADS-R (05)

U.S. NAVY (1: 1)

UAV (06)

TOTAL PROGRAM MANAGED: 5
TOTAL PROJECT MANAGED: 89
TOTAL PRODUCT MANAGED: 100
TOTAL PM MANAGED: 194

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Exhibit II-22 illustrates the Acquisition Management and Contracting relationships within the Army. The Program Managers and PEOs are outside the organizational chain of command, and report directly to the Service Acquisition Executive, who also evaluates their performance. Exhibit II-23 further illustrates this concept by graphically portraying the relationship within TACOM. Both Contracting and Acquisition authority flow from the AAE directly, and both are independent of command authority.

ORGANIZATIONAL RELATIONSHIPS

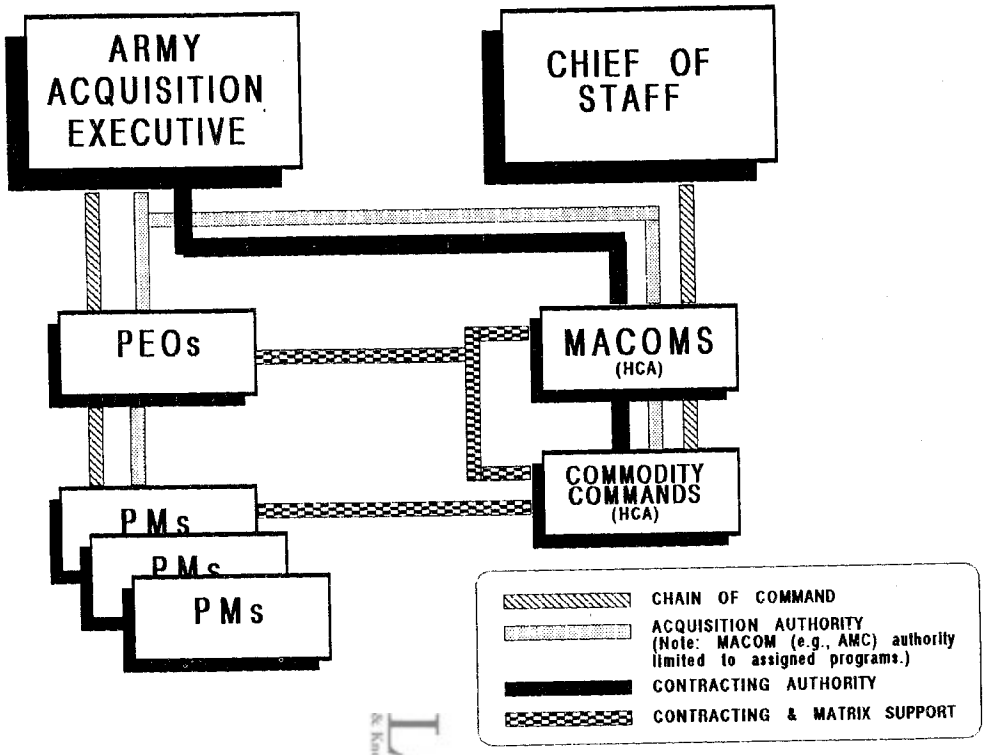

EXHIBIT II-22

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ARMY ACQUISITION MANAGEMENT

AND CONTRACTING RELATIONSHIPS

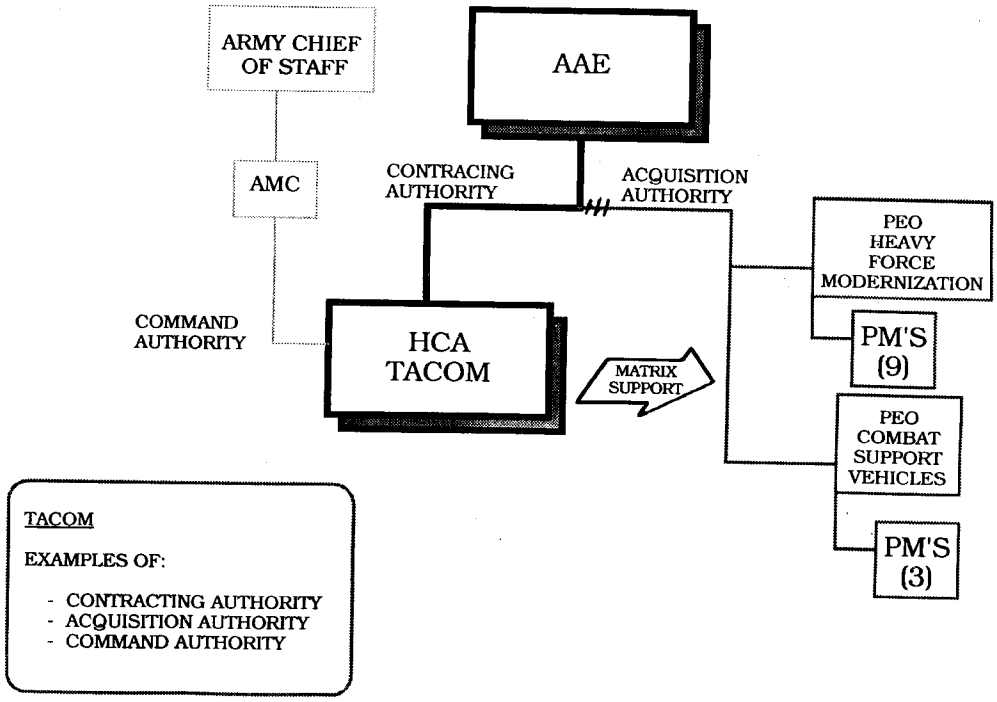

EXHIBIT II-23

Navy Acquisition Organization

The organization of the Navy acquisition functions is based on the Navy's overall mission and structure. The Navy Establishment is organized into three basic components: the Navy Department, the Shore Establishment, and the Operating Forces (Exhibit II-24). The Navy Department, which is the headquarters of the Naval Establishment, consists of the Secretary of the Navy, assistants and executive offices of the Secretary, Chief of Naval Operations and supporting offices, and Commandant of the Marine Corps plus supporting Headquarters. The Shore Establishment comprises the field activities of the Department of the Navy ashore, widely distributed throughout the United States and overseas. Their mission is to create, maintain, and support the Operating Forces. The Operating Forces, sometimes referred to as the Fleet, comprise all seagoing forces, naval aviation, the Marine Corps, and the Coast Guard in time of war.

The Under Secretary of the Navy is the Navy Acquisition Executive. Two assistant secretaries—the Assistant Secretary for Research, Engineering and Systems and the Assistant Secretary for Shipbuilding and Logistics—also have significant acquisition responsibilities.

The Assistant Secretary for Research Engineering and Systems has broad responsibilities that include administering the research and development appropriation; managing the technology base; formulating major program decisions; overseeing Navy test and evaluation; and establishing policy and negotiating foreign program initiatives. Also, he or she is responsible to the Navy Acquisition Executive for all aspects of acquisition programs up to full-scale production, including related policy and administrative matters, with the exception of shipbuilding programs.

The Assistant Secretary for Shipbuilding and Logistics is responsible for all stages of ship design for the shipbuilding program and the management of all acquisition programs following the full-scale production decision. He or she is also responsible for integrating shipboard components, subsystems, combat systems, and life-cycle support and serves as the Navy Senior Procurement Executive.

The Navy has traditionally organized its acquisition commands to conform with the basic roles and missions assigned to the Navy: Undersea Warfare, Surface Warfare and Naval Aviation. Until the 1960's the Navy Shore Establishment was organized into Bureaus organized to support basic missions and functions. Mission or commodity-oriented bureaus, such as the Bureau of Naval Weapons and Bureau of Ships were dis-established by Congress at the request of Secretary of Defense McNamara in 1966, but the mission remained in the newly established Naval Materiel Command (NAVMAT). With the abolition of NAVMAT in 1985, by Secretary of the Navy Lehman, these functions and systems orientations have been further refined.

The Navy has five Systems Commands (SYSCOMs) for acquisition, contracting, and support. These are the Navy's procurement commands. Three of the SYSCOMS—Naval Sea Systems Command (NAVSEA), Naval Air Systems Command (NAVAIR), and Space and Warfare System Command (SPAWAR)—are the major system

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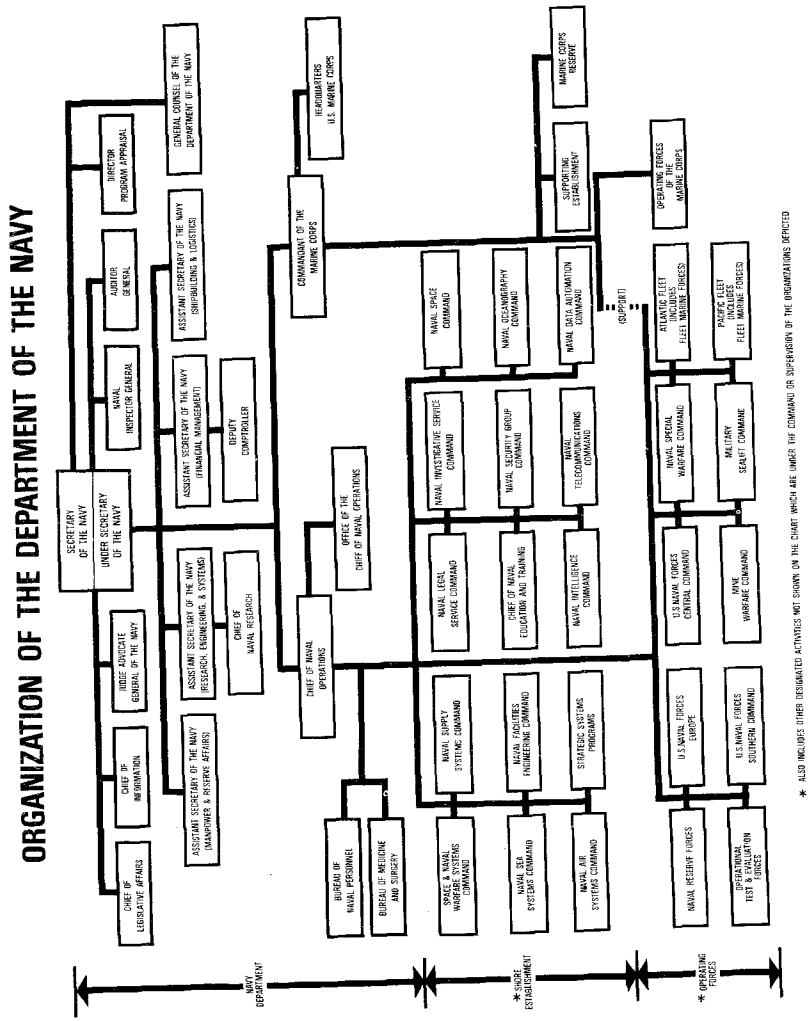
procurement or "hardware" SYSCOMs. The fourth SYSCOM is Naval Supply Systems Command (NAVSUP), which is responsible for operating the Navy supply and logistics system and for operating the Navy Field Contracting System (NFCS). The last SYSCOM is the Naval Facilities Engineering Command (NAVFAC), which is responsible for construction and architect-engineer (A&E) contracts as well as services associated with civil engineering and public works functions. In addition, the Strategic Systems Program Office (SSPO) has responsibility for acquiring and maintaining the Navy's portion of the nuclear triad. The SYSCOMs and SSPO constitute the Navy's shore establishment along with 10 other Echelon 2 commands: Naval Intelligence, Naval Education and Training, Naval Security Group, Naval Security and Investigative Service, Naval Telecommunications, Naval Data Automation, Naval Legal Service, Naval Medical, Naval Oceanographic, and Naval Space Commands.

EXHIBIT II-24



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Navy Contracting Organizations

Like the other Services, the Navy organization for contracting transcends systems acquisition and encompasses the whole range of procurement actions, wholesale and resale, to support the Service mission. In consonance with its global deployment, the Navy contracting organization is large and diverse.

The Navy has the largest number (over 900) of contracting activities within the Department of Defense. The contracting activities are performed in all three Navy echelons, but the largest portion is within the SYSCOMS. Contracting authority flows from the Secretary of the Navy to the Assistant Secretary of the Navy (Shipbuilding and Logistics), who is the Navy Senior Procurement Executive. Contracting activities are conducted through two organizations within the Office of the Assistant Secretary of the Navy (OASN): the Procurement Support Office and the Director, Contracts and Business Management.

The Principal Deputy to the Assistant Secretary serves as Director of the Procurement Support Office, which is a field activity that evolved from the dissolution of the Navy Materiel Command (NAVMAT) in 1985. It is intended to provide support in implementing contracting policies within the OASN by providing business clearance approvals, approving acquisition plans, legally reviewing contracts, and preparing contract reports. Procurements in excess of $50 million must be processed through the Procurement Office and approved by the Assistant Secretary.

The Directorate of Contracts and Business Management (CBM) is responsible for developing and promulgating contracting policies for the Navy. The Directorate is also responsible for the career program management of contracting personnel, both civilian and military. The Director, a member of the Senior Executive Service, is also a member of the Defense Contracting Career Management Board (DCCMB). The CBM directorate also has operational responsibilities. For example, the Head, Cost and Profit Review Branch is a contracting officer (by position) and authorized to negotiate Navy-wide advance agreements for independent research and development and bid and proposal (IR&D, B&P).

The Assistant Secretary of the Navy (Research, Engineering, and Systems) has contracting authority for research and development and delegates this authority to the Office of Naval Research (ONR), which is responsible for research and development contracting, especially in the areas of basic and applied research. Later research and development, such as advanced and engineering development, is normally procured by the cognizant SYSCOM, as well as by the Navy Field Contracting System (NFCS).

Heads of Contracting Activity. The contracting function is executed below the Secretariat primarily through the shore establishment and the Navy's five SYSCOMS. Contracting authority for the five SYSCOMs flows through the contracting "chain-of-command" from the Assistant Secretary of the Navy (Shipbuilding and Logistics) or ASN (S&L). The most extensive contracting effort is the Navy Field Contracting System (NFCS), which is managed by NAVSUP. NAVSUP is organized, as shown in Exhibit II-25, into contracting and logistical activities such as Supply Centers, Inven-

tory Control Points, and Depots. The Deputy Commander, Contracting Management, is responsible for the contracting functions within NAVSUP as shown in Exhibit II-26.

EXHIBIT II-25

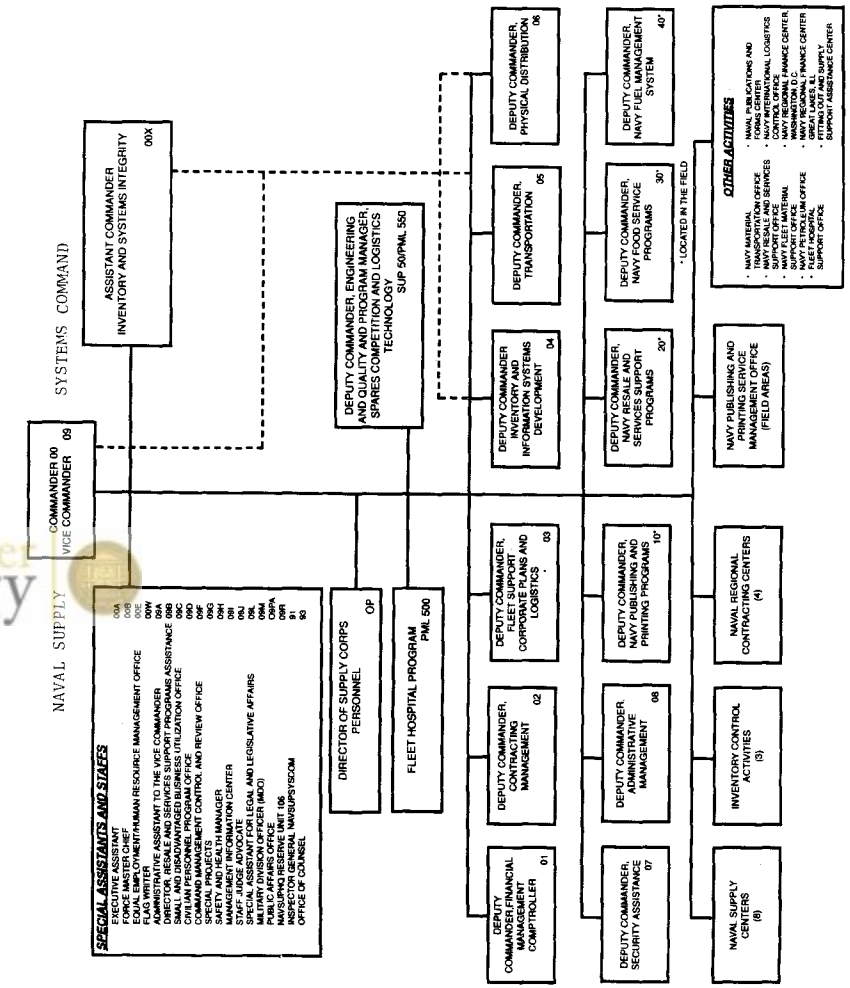

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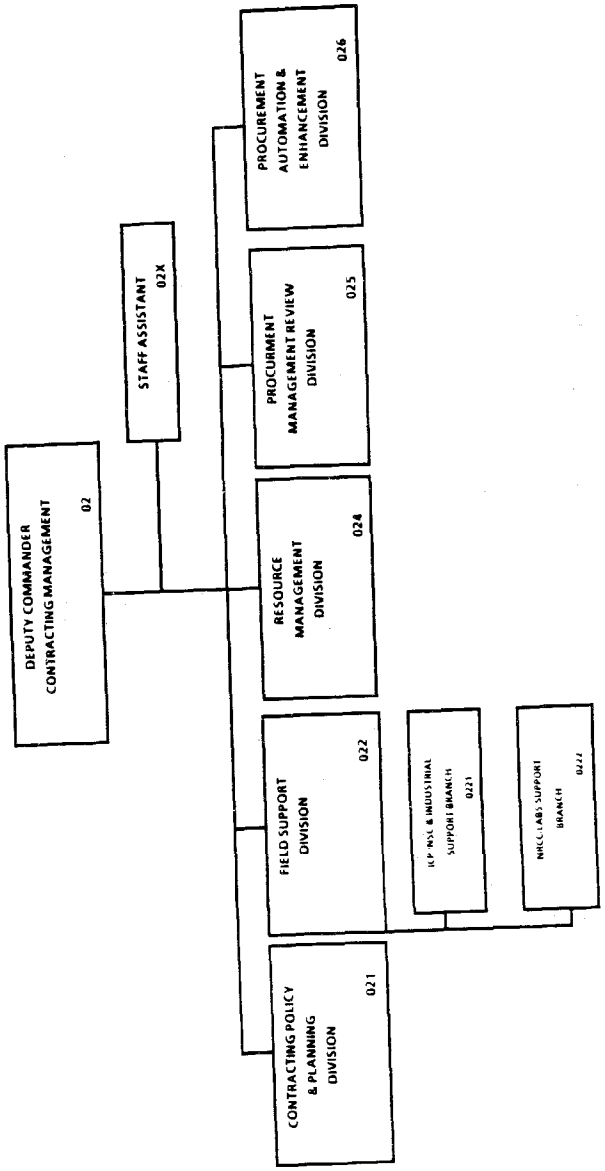
EXHIBIT II-26

NAVSUP CONTRACTING MANAGEMENT ORGANIZATION



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Navy Field Contracting System. The Navy Field Contracting System (NFCS) can most easily be described by what is excluded. The NFCS consists of all Navy contracting offices, including fleet units, except for the following contracting and contract administration offices and organizations:

(1) Marine Corps and its field activities except for Marine Corps Air Stations, such as Cherry Point;
(2) Military Sealift Command (MSC) and its field activities;
(3) Office of Naval Research (ONR) and its Branch offices and Resident representatives;
(4) Automatic Data Processing Selection Office;
(5) SYSCOMS (NAVAIR, NAVSEA, SPAWAR, and NAVFAC) except for the supplies and services buying at NAVPROS and SUPSHIPS within NAVAIR and NAVSEA.

Thus NAVSUP has responsibility for all Navy contracting, through the NFCS, except for the above-mentioned exceptions. The Commander of NAVSUP is the Head of the Contracting Activity (HCA) for the NFCS.

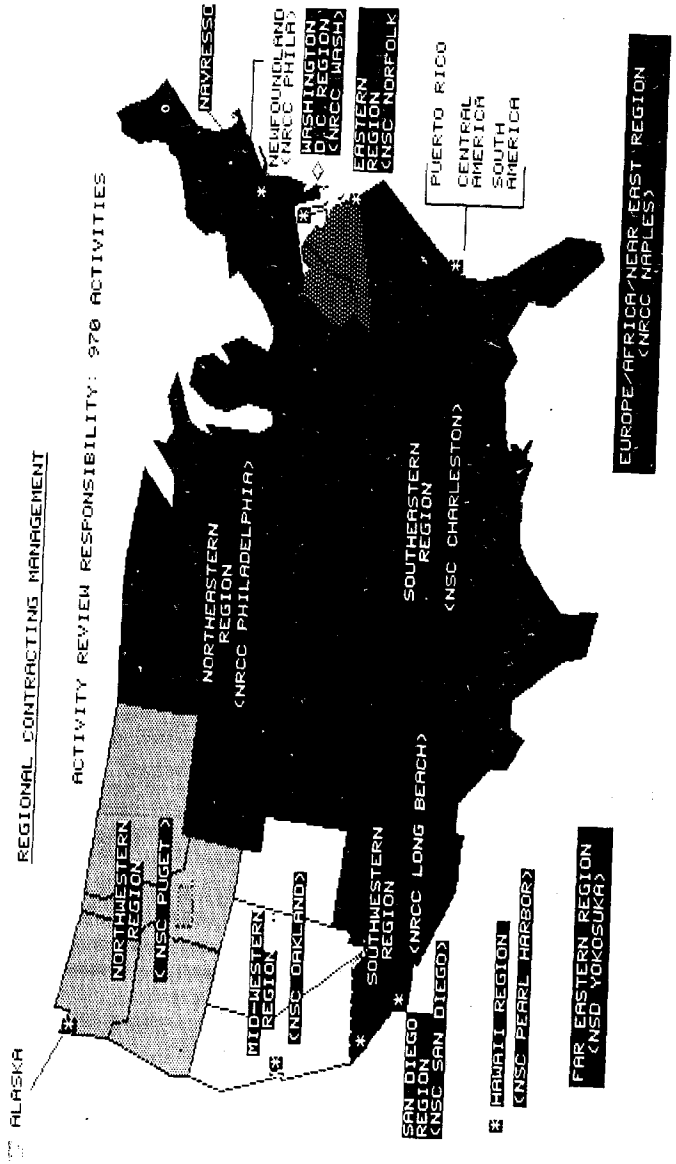
NAVSUP employs a concept of decentralized contracting authority balanced with regional consolidation of contracting support and commodity assignments wherever feasible. The decentralization and regionalization of contracting support has the advantage of placing the procurement function in proximity to the requiring activities. In terms of regionalization, the NFCS uses an area buying concept, based on geographical subdivisions as shown at Exhibit II-27. Area buying activities are responsible for centralized buying within a specified area for those acquisitions which are in excess of the contracting authority granted the activities located within that assigned area. Procurements in excess of the area buying activities' authority are referred to the cognizant Navy Regional Contracting Center (NRCC) or other authorized contracting activity such as a Naval Supply Center. Coupled with this regionalized concept is the concept of commodity buying assignments (similar to the Army and Air Force).

Items under centralized inventory control will be acquired by the respective NAVSUP managed Inventory Control Point (ICP) or designated Navy contracting centers for certain assigned material classes. Activities may buy material under the cognizance of a NAVSUP ICP only to the extent authorized. There are three Inventory Control Points: Aviation Supply Office to support naval aircraft, Ships Parts Control Center for naval vessels, and the Resale and Service Support Center for non-appropriated funds items. Other commodity assignments include computer resources, industrial production equipment, and shipboard habitability items.

Within the NFCS, there are 67 major field contracting activities with contracting authority in excess of $25,000—the small purchases threshold. Twenty-nine activities have unlimited contracting authority and 38 activities have limitations greater than $25,000 on their contacting authority. In addition to the 4 Naval Regional Contracting Centers, there are 8 Naval Supply Centers, five Naval Shipyards, four Naval and Marine Corps Air Stations, three Naval Supply Depots, and the remainder consists of weapons and engineering centers, and laboratory organizations. There are 59 other

contracting activities limited to small purchase authority. In addition, there are over 800 small activities, most of which are part of the operating forces afloat, with limited contracting authority. All naval officers within the NFCS who are contracting officers are Supply Corps officers.

EXHIBIT II-27



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Central Systems Contracting. The Naval Facilities Engineering Command (NAVFAC) has cognizance for Navy public and civil works. It is responsible for construction and related design at Navy-owned, contractor-operated facilities and is responsible for the administration of all contracts for public and civil works and for the civil works portions of facilities and all other construction. This SYSCOM has a world-wide contracting support organization like NAVSUP. There are six different Engineering Field Divisions (EFDs) geographically dispersed. These EFDs have unlimited contracting authority for construction, and architect-engineer services. Their work is supported by nine subordinate Public Works Centers world-wide with limited contracting authority. NAVFAC also has three Construction Battalion Centers and a Civil Engineering Laboratory at Port Hueneme, and the Officer in Charge of Construction of the Trident at Kings Bay, Georgia, has a contract administration role and limited procurement role. Military contracting officers within NAVFAC are Civil Engineering Corps officers rather than Supply Corps officers.

The three "hardware" SYSCOMS all have major contracting organizations. Most, if not all, contracting officers in support of weapon systems acquisitions are "matrixed" to the Program Office, that is, they remain within the contracting organizational structure but provide dedicated support to the Program Manager.

Within NAVSEA, there is a Contracts Directorate, which is a major functional Directorate within NAVSEA headquarters. This office is headed by a Rear Admiral. There are two contract administration functions within NAVSEA. The Supervisors of Shipbuilding (SUPSHIPs) have contract administration responsibility for ship construction and are a field activity of NAVSEA. The Naval Plant Representative Offices (NAVPROs) have contract administration responsibilities under the DOD plant cognizance program.

The NAVAIR Contracts Directorate, which is headed by a Rear Admiral, is depicted by Exhibit II-28. NAVAIR has two field contracting management responsibilities: one consists of the six NAVPROS, which are part of the contract administration plant cognizance program, the other is the Naval Aviation Depot Operations Center (NADOC).

The Directorate for Contracts within SPAWAR, shown at Exhibit II-29, is headed by a Navy Captain.

The Office of Naval Research, under the Chief of Naval Research is responsible for research and development. The Naval Research Laboratory is a field contracting activity of the Office of Naval Research. Office of Naval Research also has a contract administration role with resident representatives for research in universities.

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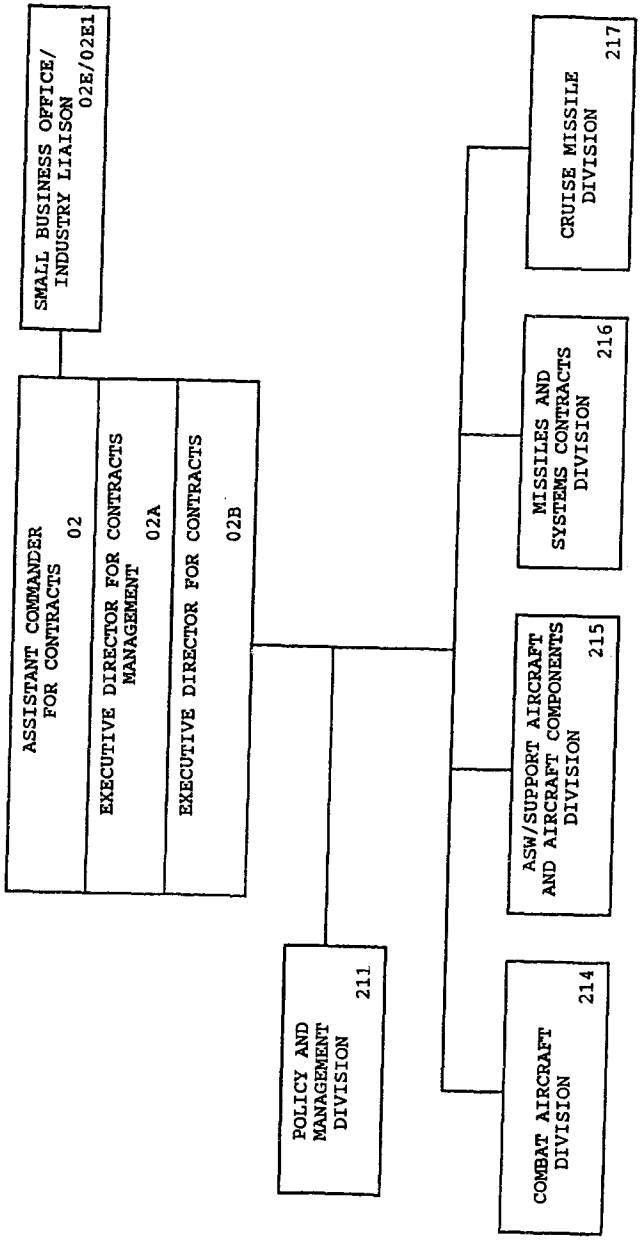
EXHIBIT II-28

NAVAIR CONTRACTING ORGANIZATION



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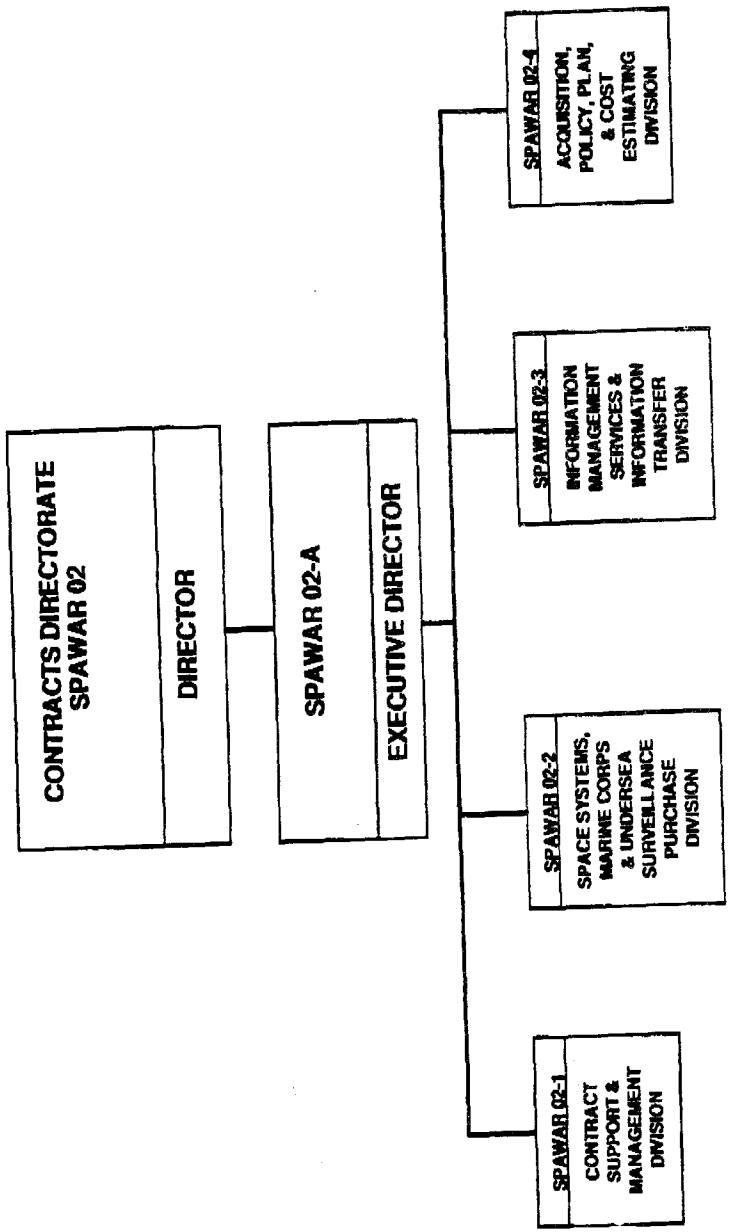

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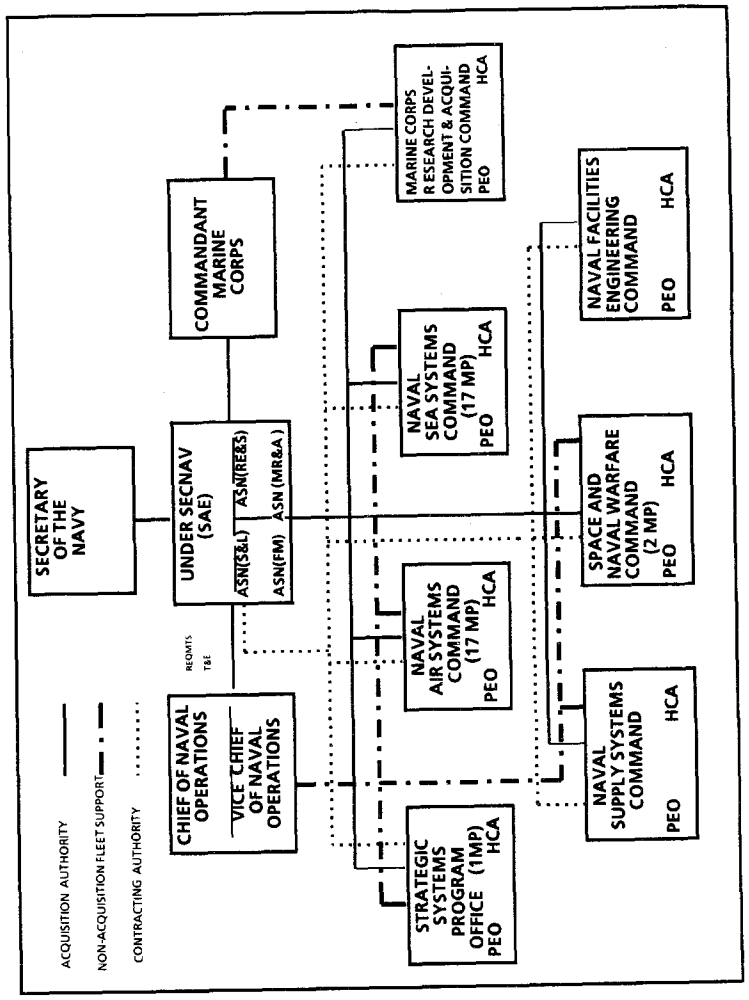
Navy Program Management Organizations

Program Managers and the whole panoply of technical support personnel associated with them are located primarily within the three "hardware" SYSCOMs—NAVSEA, NAVAIR and SPAWAR and the Strategic Systems Program Office. Additional acquisition personnel may be found in NAVSUP, the Office of Naval Research and the offices of the Assistant Secretaries (Shipbuilding and Logistics) and (Research, Engineering and Systems). Acquisition personnel will also be assigned to the Office of the Chief of Naval Operations (CNO), specifically to the Assistant Chiefs of Naval Operations for Undersea Warfare, Surface Warfare, Air Warfare and Logistics.

Exhibit II-30 indicates the organization of Program Executive Offices (PEOs), Program Managers and their relationship to the chain of command and the flow of contracting authority. As one can see, the Under Secretary of the Navy is the Service Acquisition Executive. Acquisition authority flows to the seven separate PEOs. The numbers of major weapon system Program Managers are indicated in parenthesis. For example, there are 17 Program Managers within Naval Sea Systems Command. The PEOs are also "dual hatted" as Head of Contracting Activity (HCA), receiving their contracting authority from the Assistant Secretary of the Navy (Shipbuilding and Logistics). These individuals also report for command purposes to the Chief of Naval Operations. The latter has responsibility for establishing requirements and for test and evaluation within the acquisition process.

EXHIBIT II-30



Systems Commands. NAVSEA, whose structure is depicted by Exhibit II-31, is responsible for material support to the Navy and Marine Corps for ships, submarines, and other sea platforms, shipboard combat systems, and components, other surface and undersea warfare and weapon systems. In addition to functional directorates, such as contracting and comptroller, it is organized into various major system directorates: Ship Design and Engineering, Weapons and Combat Systems, Surface Combatants, Submarines, and Amphibious, Auxiliary, Mine and Sealift ships directorates. In addition, the chief engineer of the Navy and the Nuclear Propulsion Directorate are included within the NAVSEA organizational structure. The Acquisition, Planning and Appraisal Directorate is actively involved in acquisition career management, with responsibility for the Professional Development Center.

NAVAIR is responsible for material support to the Navy and Marine Corps for aircraft, airborne weapon systems, avionics, photographic and support equipment, ranges and targets. Like NAVSEA, NAVAIR, which is depicted by Exhibit II-32, is organized to acquire different types of systems and subsystems. NAVAIR employs a management layer between the Program Executive Officer, to wit, the Commander of NAVAIR, and the Program Managers. Individuals occupying these positions are known as Program Directors—Air (PDAs). Their function is to coordinate the efforts of several different Program Managers within a family of weapon systems and assist the PEO in managing these programs. There are five different Program Directors—Air (PDAs): for Tactical Aircraft Programs, Weapons Programs, Electronic Warfare (EW) and Mission Support, Anti-submarine Warfare (ASW) and Assault Programs, and for Cruise Missile Programs.

There are three functional Assistant Commanders for: (1) Logistics; (2) Contracts; and (3) Systems and Engineering. The contracts organization is organized, as indicated in Exhibit II-29, to provide support along product lines, e.g. combat aircraft, missile systems, cruise missiles. There are five systems engineering directorates providing functional support. There are five supporting systems directorates: Systems Acquisition, Systems Alternatives, Flight Systems, Mission Systems, and Support Systems. All these functional organizations provide matrix functional support to the Program Managers.

SPAWAR provides technical and materiel support to the Navy for space systems; command, control, communications and intelligence (C^3I); electronic warfare and undersea surveillance. Its mission includes force warfighting architecture integration. SPAWAR directs eight engineering centers, eight Navy laboratories and four university laboratories. SPAWAR is organized into nine directorates, five of which are organized according to systems and missions: Space and Sensor Systems, Information Transfer Systems, Information Management Systems, Undersea Warfare Systems, and Marine Corps Systems.

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EXHIBIT II-31

NAVAL SEA SYSTEMS COMMAND

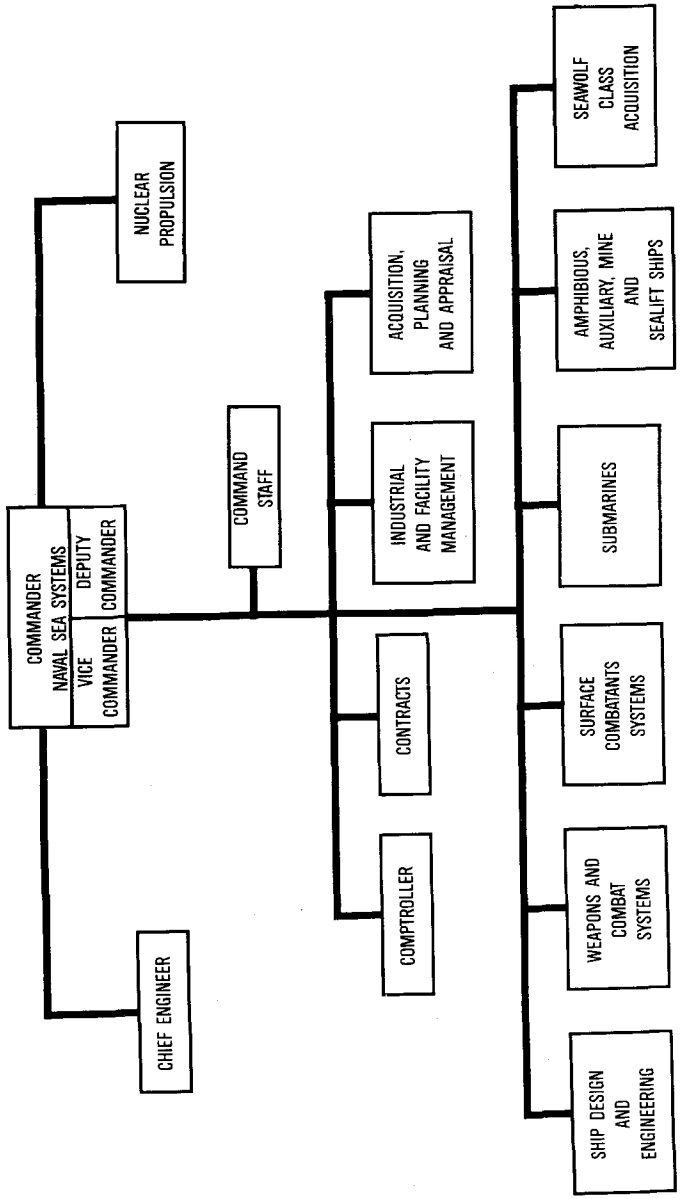
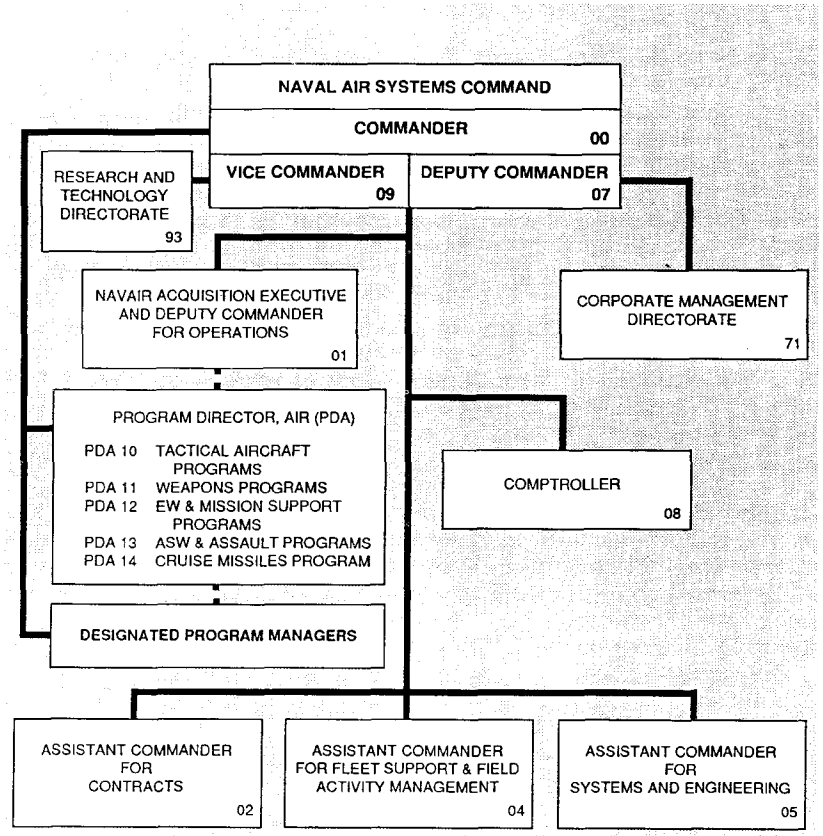


EXHIBIT II-32

NAVAL AIR SYSTEMS COMMAND



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Air Force Acquisition Organization

The organization of the Air Force acquisition functions follows the Air Force's historical preference for decentralization. Air Force Headquarters is organized into two entities: the Office of the Secretary of the Air Force or Secretariat, which is depicted by Exhibit II–33, and the Air Staff under the Chief of Staff of the Air Force.

The Air Force Assistant Secretary for Acquisition heads the Air Force's acquisition organization, serving as the Service Acquisition Executive and Senior Procurement Executive. The Air Force Acquisition secretariat's organization is shown on Exhibit II–34. Over 54 percent of the staff are assigned within six of the nine systems directorates that have top level management responsibilities, such as budget development and overseeing program execution, for Air Force acquisition programs. Each of the following mission areas has a directorate: space and strategic defense initiative; science and technology; special programs; tactical programs; strategic, special operations forces, and airlift; and avionics and electronic combat. Five of the directors of these organizations are general officers and the sixth a colonel, and the technical and managerial staff are predominantly military officers.

As the Air Force Senior Procurement Executive, the Assistant Secretary is supported by the Directorate of Contracting and Manufacturing Policy which is headed by a general officer and staffed by a professional staff of military and civilian personnel. The primary responsibilities of the Directorate are to oversee and direct the implementation of Air Force contracting and manufacturing policies and procedures; prepare policies, plans and implementing procedures for contract pricing, cost monitoring and cost accounting standards; review and process required procurement documents, such as acquisition plans, justifications and approvals, source selection delegations and plans, and second-source plans and waivers; develop manufacturing policies and procedures for the industrial base; prepare Air Force positions on protests, Congressional inquiries, and suspension and debarment actions; and oversee military and civilian personnel issues affecting contracting and manufacturing personnel. The Secretariat staff performing this procurement oversight function is smaller than the Secretariat staffs performing these activities in the Army and the Navy.

Within the Directorate of Planning and Integration, responsibilities include developing acquisition management policy directives; integrating current and future year research, development, and procurement budget accounts; and serving as the focal point for various acquisition documents.

Although the Acquisition Secretariat serves as the principal acquisition organization, other headquarters activities in the Office of the Chief of Staff also perform acquisition functions, including the Assistant Secretary for Readiness Support, Deputy Chief of Staff for Plans and Operations, Deputy Chief of Staff for Logistics and Engineering, and the Assistant Chief of Staff for Command, Control, Communications and Computers.

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EXHIBIT II–33

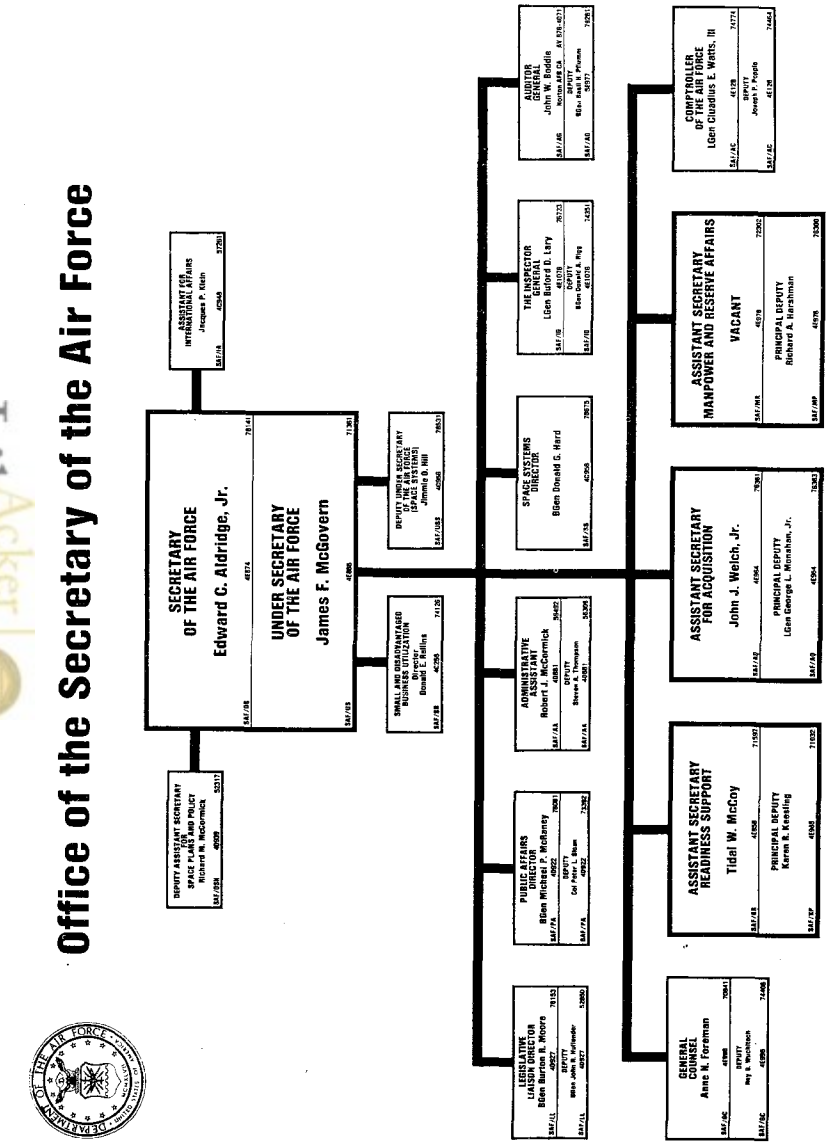

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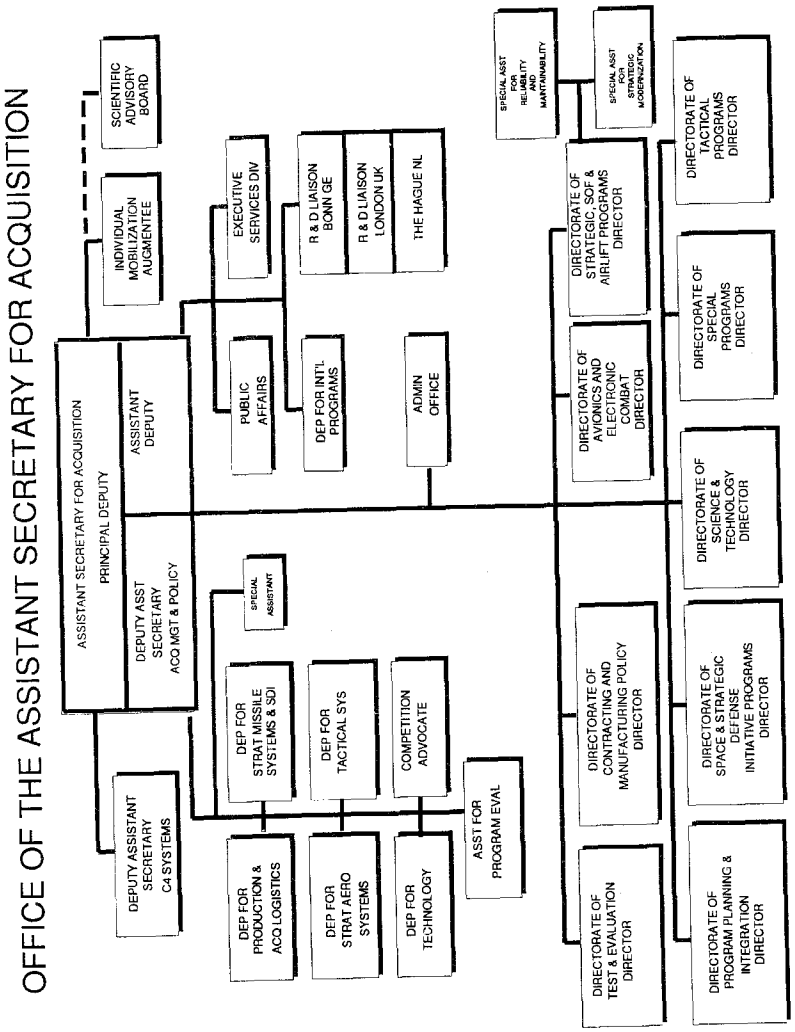
EXHIBIT II-34



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Below the Secretariat and Chief of Staff level there are three major types of organizations: Major Commands (MAJCOMs)—thirteen; Separate Operating Agencies (SOAs)—sixteen; and, Direct Reporting Units (DRUs)—eleven. The Air Force categorizes its MAJCOMs into operational commands and support commands. There are five support commands: Air Force Logistics Command (AFLC), Air Force Systems Command (AFSC), Air Training Command (ATC), Air University (AU), and Electronic Security Command (ESC). The eight operational MAJCOMs are: Alaskan Air Command (AAC), Air Force Communications Command (AFCC), Air Force Space Command (AFSPACECMD), Military Airlift Command (MAC), Pacific Air Forces (PACAF), Strategic Air Command (SAC), Tactical Air Command (TAC), and United States Air Forces in Europe (USAFE). AFCC, however, is in a transitional stage from "operational" contracting to an acquisition or procurement command. AFLC and AFSC are the Air Force's "procurement" commands as defined by 10 U.S.C 1621.

Air Force Contracting Organizations

The Air Force contracting organization and mission is international in scope with over 200 contracting offices world-wide from Alaska to Panama, from the Philippines to West Berlin, and in the Middle East. The contracting mission and organizational structure is, like the other Services, significantly larger than just the system acquisition organizations. While systems acquisition is concentrated within specific MAJCOMS, contracting is found at every organizational level. Nonetheless, the largest number of personnel and contract dollars are concentrated in the central and systems contracting organizations of the two procurement commands.

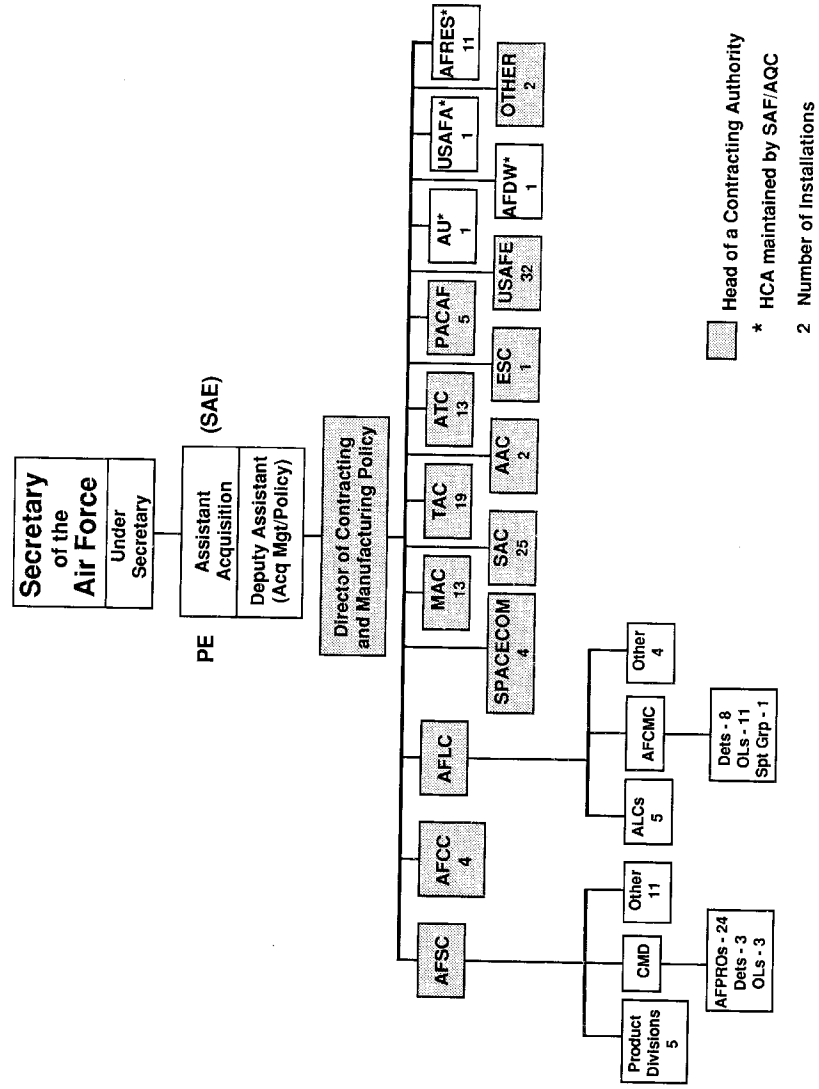
A number of the Separate Operating Agencies (SOAs) and Direct Reporting Units (DRUs) also have contracting organizations to support their mission. Notable in this regard are the Air Force Reserve, Air Force Academy, Air Force District of Washington, Air Force Commissary Service and Air Force Office of Medical Support.

Contracting authority and policy emanates in the Air Force Secretariat with contracting authority flowing from the Assistant Secretary for Acquisition, who is the Senior Procurement Executive as well as Service Acquisition Executive, to the Deputy Assistant Secretary for Acquisition Management and Policy. This individual, a member of the Senior Executive Service, is responsible for acquisition program planning as well as acquisition and procurement policy. This individual also serves as Chairman of the Contracting and Manufacturing Civilian Career Program (CMCCP) Policy Council.

Also within the Assistant Secretary's office, under the Deputy Assistant Secretary (Acquisition Management), is the Directorate of Contracting and Manufacturing Policy, which is responsible for developing contracting and manufacturing policies and procedures, conducting surveillance of contracting field activities, plus managing—from a functional perspective—the military and civilian personnel policy issues affecting contracting personnel. It provides liaison and an operational policy role with regard to the CMCCP. The Director is a General Officer with a Senior Executive Service civilian Associate Director.

Head of Contracting Activity. Exhibit II–35 indicates the distribution of contracting organizations within the Air Force and identifies the Heads of Contracting Activities (HCAs), through whom contracting authority flows. Also indicated are the number of contracting offices under their authority. For example, Military Airlift Command (MAC) is an HCA and there are 13 contracting offices in support of the MAC bases. In the case of Air University (AU) and Air Force Reserve (AFRES), United States Air Force Academy and Air Force District of Washington, Head of Contracting Authority is retained by the Director of Contracting and Manufacturing Policy.

EXHIBIT II–35



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Central/Systems Contracting. Air Force Logistics Command (AFLC) and Air Force Systems Command (AFSC), the Air Force's "procurement" commands, are involved in the development, production, and logistic support of weapon systems. Systems and central procurement are related to the weapon systems acquisition process and the logistical support of deployed systems respectively.

AFSC is responsible for the research, development, and production of all systems in the Air Force (Exhibit II-36). Established in April 1961, it replaced the Air Research and Development Command (ARDC) which had been formed in January 1950 as a separate command from Air Materiel Command, with primary responsibility for research and development in the Air Force. It also obtained the weapon systems procurement and production functions from Air Materiel Command. Systems contracting support is accomplished in Program Management offices as well as research and development and test organizations throughout AFSC. Program Managers and other acquisition personnel are provided contracting support by the AFSC contracting organizations within the six Product Divisions. In some of the Product Divisions, contracting support is provided in a matrix form, and in others it is provided in a more traditional, functional fashion. The following listing of Product Divisions, Test Ranges, and other acquisition organizations outside of Headquarters AFSC all have a supporting contracting organization:

Product Divisions—Munitions Systems Division (MSD), Aeronautical Systems Division (ASD), Ballistics Systems Division (BSD), Electronic Systems Division (ESD), Space Systems Division (SSD), Human Systems Division (HSD).

Research and Test Centers—AF Office of Scientific Research (OSR), Air Force Flight Test Center (AFFTC), Arnold Engineering Development Center (AEDC), Rome Air Development Center (RADC), Eastern Space and Missile Center (ESMC), Western Space and Missile Center (WSMC), Space & Missile Test Organization (SMTO).

Contract Administration—Air Force Contract Management Division (AFCMD), which contains Air Force Plant Representative Offices (AFPROs), Detachments and Operating Locations (OLs).

Base Contracting—7 Operational Contracting Offices.

While there is no "standard" contracting organization at Product Divisions, the ASD Deputate would certainly serve as a typical example. The Contracting and Manufacturing Deputate at Aeronautical Systems Division is the largest field contracting organization in the Air Force. It is organized as shown in Exhibit II-37 with six different Directorates plus the Contract Review Committee. The Director for Contracting and Manufacturing is a Colonel with a civilian Senior Executive Service deputy.

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EXHIBIT II-36

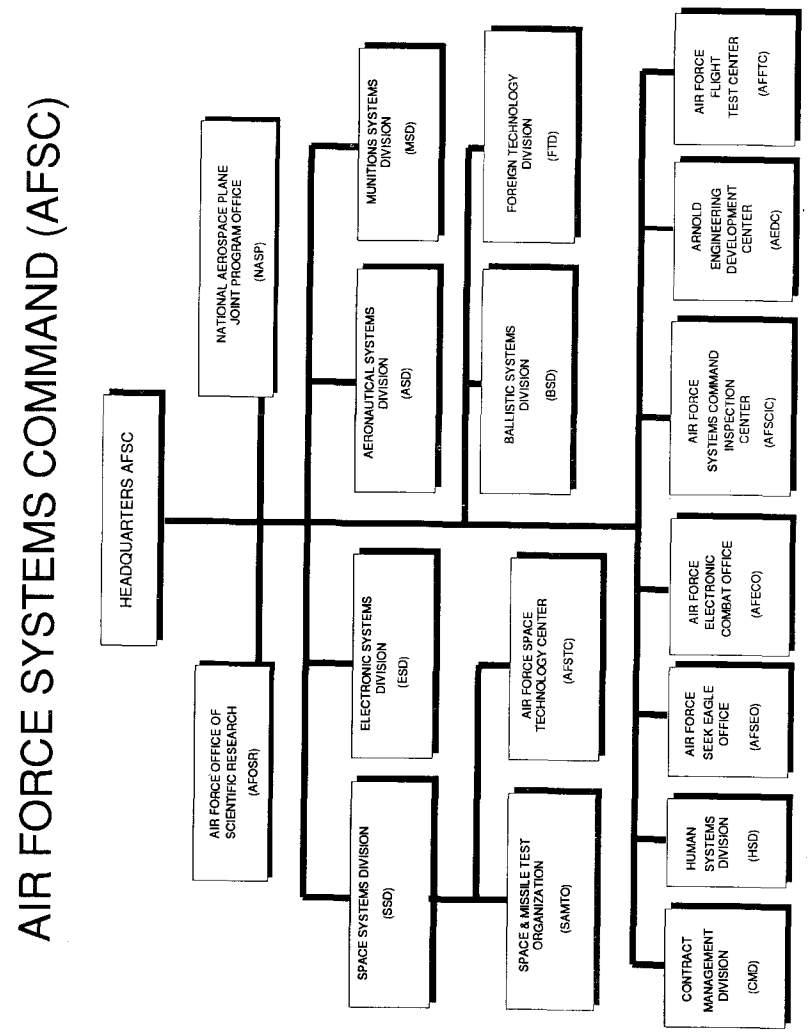
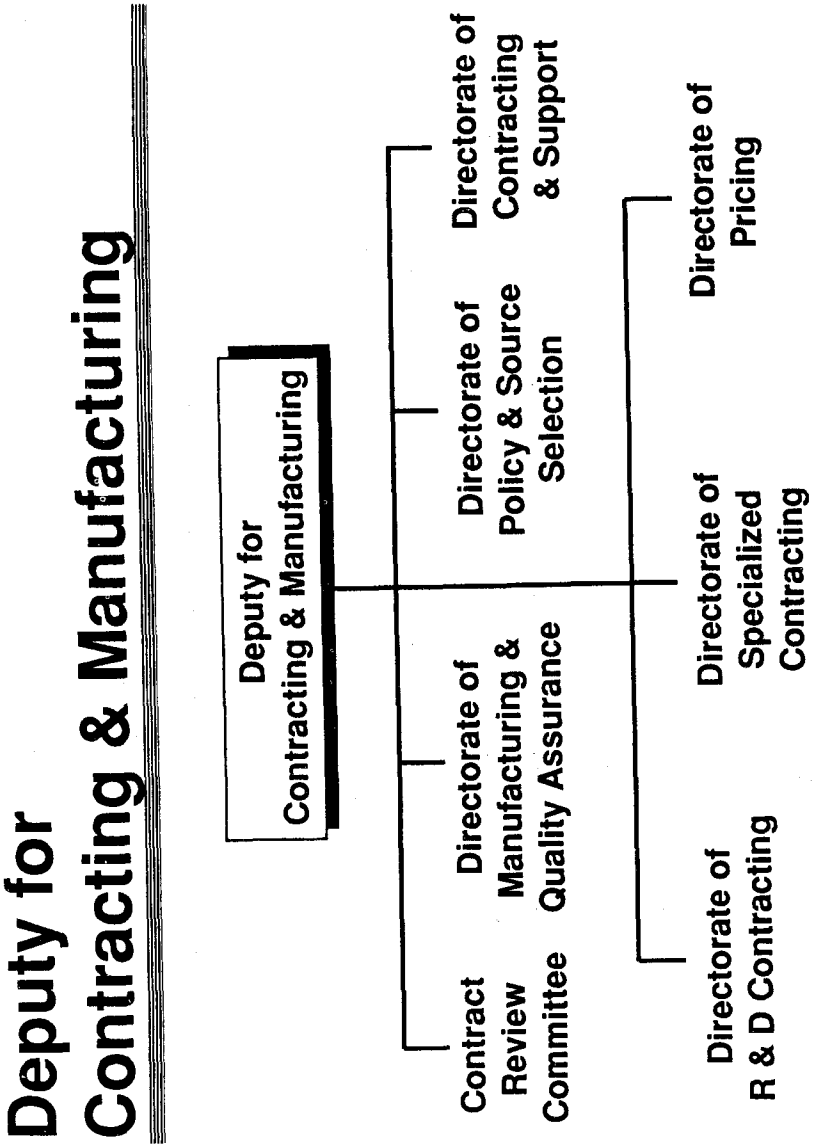


EXHIBIT II–37



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AFCMD has responsibility for centralized contract administration, quality assurance, and contractor performance under the DOD plant cognizance program. It has contract administration organizations at 30 contractor locations.

Successor to Air Materiel Command, Air Force Logistics Command is responsible for the centralized procurement involved in logistically supporting all systems in the Air Force inventory after responsibility is "handed off" from AFSC through a management procedure known as Program Management Responsibility Transfer (PMRT). To accomplish its worldwide logistics mission, AFLC is organized into five Air Logistics Centers (ALCs) and other organizations overseas and in the United States (Exhibit II–38). The five ALCs are: Oklahoma City (OC–ALC), San Antonio (SA–ALC), Sacramento (SM–ALC), Ogden (OO–ALC), and Warner Robins (WR–ALC).

There are contracting organizations at each of five Air Logistics Centers (ALCs) that provide centralized contracting support. As indicated in Exhibit II–39, the Contracting and Manufacturing Directorates at the ALCs have two central contracting divisions, a base contracting division, a Systems and Support Service Division, contract management division, a pricing and finance division, and a contracts committee. The Directorate chief is a colonel with a Senior Executive Service deputy. The two central contracting divisions are responsible for central procurement of supplies, equipment, services, and data in logistical support of the Air Force, other Services, government agencies, and foreign countries. The central contracting divisions are responsible for the complete range of contracting effort involved in the pre-award contracting cycle.

Recently, however, AFLC initiated a program, PACER STRIDE, to decentralize the central contracting function by moving contracting personnel into the requirements organizations. At each ALC, contracting and manufacturing personnel involved in buying systems, items, and components are being physically relocated to an area in the System Program Manager's office complex, but still report under their functional supervisory channels. AFLC plans to collocate over 100 contracting personnel at each ALC.

AIR FORCE LOGISTICS COMMAND (AFLC)

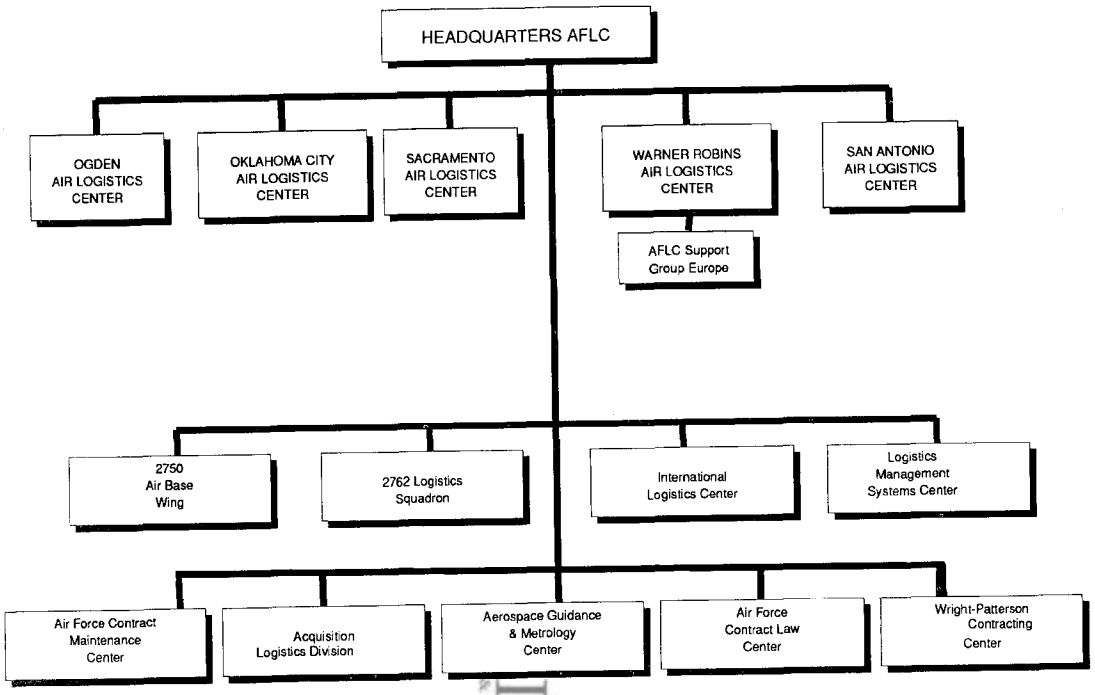

EXHIBIT II-38

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CONTRACTING AND MANUFACTURING ORGANIZATION AT AN AIR LOGISTICS CENTER

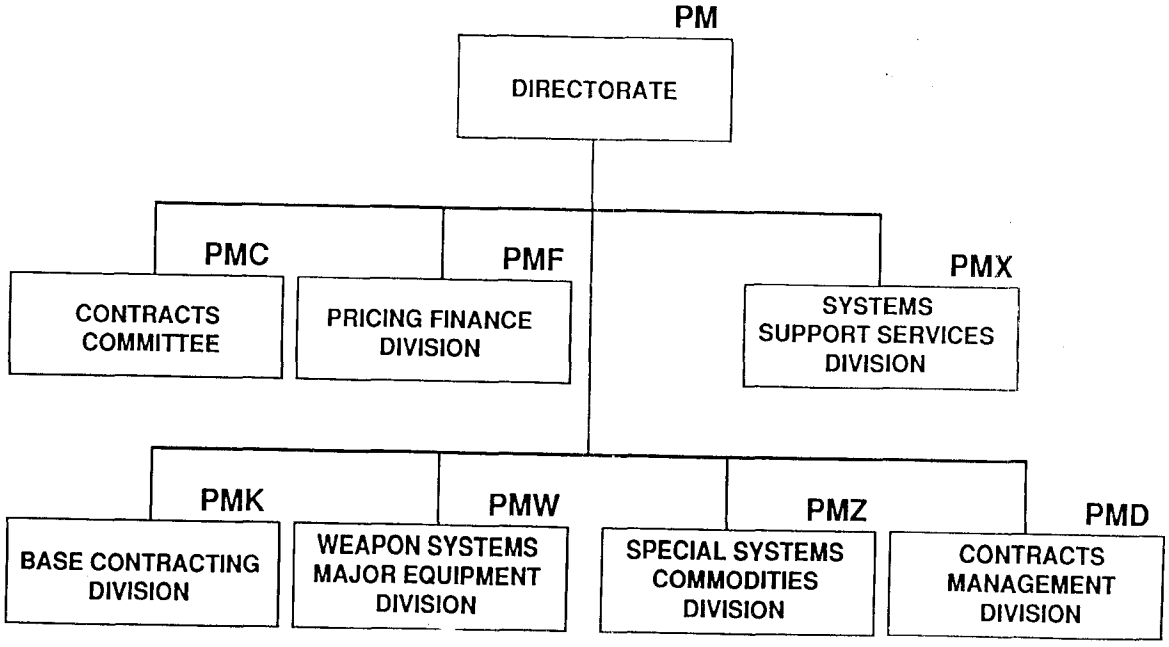

EXHIBIT II-39

In addition to base level support, Wright Patterson Contracting Center (WPCC) does centralized procurement of specialized Air Force-wide contacting requirements such as contract engineering technical services (CETS) and library services, and Hospital Aseptic Management Services (HAMS).

Air Force Contract Maintenance Center (AFCMC), one of the two centralized contract administration organizations within the Air Force (the other is AFCMD under AFSC), is responsible for worldwide contract administration of field contractor support services. There are 20 AFCMC Detachments or Operating Locations worldwide.

Installation-level Contracting. The Air Force recently redesignated the traditional base or installation-level contracting as "operational" contracting. All of the MAJCOMs have an operational or base contracting organization at each of their bases as well as a headquarters contracting staff.

In the operational or base contracting arena, the Air Force employs a standard organizational structure with at least three core branches: supplies, services and systems management. Based on mission, these standard organizations may be supplemented by contract administration, contract repair service, and specialized contracting branches as appropriate.

The predominant number of contracting organizations throughout the rest of the Air Force are dedicated to base contracting support, although there are some centralized procurement functions provided by ATC for training, AFCC for communications, MAC for airlift support, and AFSPACECMD. There are a total of 151 base contracting organizations as follows:

Distribution of Operational Contracting Offices

Alaskan Air Command	2
Air Force Communications	4
Air Force Logistics Command	10
Air Force Systems Command	7
Air Training Command	13
Air University	1
Military Airlift Command	13
Pacific Air Force	5
Strategic Air Command	25
Space Command	4
Tactical Air Command	19
US Air Force in Europe	32
Air Force Reserve	11
Air Force District of Wash.	1
Air Force Academy	1
Total	151

There are 91 Air National Guard contracting organizations. However, these organizations and personnel are under the control and supervision of the National Guard Bureau, which receives its contracting authority from the Army. Thus, the Air Force has allowed the Army to assume responsibility for the training and supervision of its Air National Guard contracting personnel.

Air Force Program Management Organizations

Program Managers and their supporting acquisition personnel are located to a large degree within Air Force Systems Command, although there are some Program Management personnel within Air Force Logistics Command which are known as system Program Managers. Additional acquisition and program management personnel may be found in the Air Force Secretariat and Air Force Communications Command.

Program Managers are primarily located in any one of the six Product Divisions of AFSC. Within Air Force Systems Command, Program Executive Officers (PEOs) are also the commanders of the Product Divisions, except for the National Aerospace Plane (NASP) program. The NASP Program Office is a separate organizational entity reporting directly to the AFSC commander even though it is geographically collocated at Aeronautical Systems Division, and the PEO is the commander of AFSC. Thus, within the Air Force, the PEOs are "dual-hatted" with the chain of command.

For major programs, the Air Force organizes its program management function around the Systems Program Office (SPO), which is a matrix organization. Personnel from various acquisition functions may be matrixed to the organization. Exhibit II-40 portrays the typical organizational functions that are either assigned or matrixed to a SPO. Typically, the Program Manager will have as part of the permanent SPO staff Program Control (responsible for managing and directing financial activities, including cost estimating, budgeting and funds control; progress tracking; program reporting, documentation, and analysis; and serves as the focal point for life cycle cost analysis functions); configuration management (responsible for configuration control of equipment, facilities, specifications, including control over engineering change proposals; identification and documentation of the functional and physical characteristics of a configuration item); Systems Engineering (responsible for technical support to the Program Manager and for managing the total system engineering function, including engineering integration of the system and subsystems); Test and Evaluation (responsible for planning, coordinating, and managing the overall system test effort); contracting and manufacturing (responsible for contracting support to the Program Manager in terms of pre- and post-award contract execution plus support in the areas production planning and surveillance, manufacturing and quality assurance); and Acquisition Logistics provides technical support to the Program Manager in the "ilities"—reliability, availability, and maintainability.

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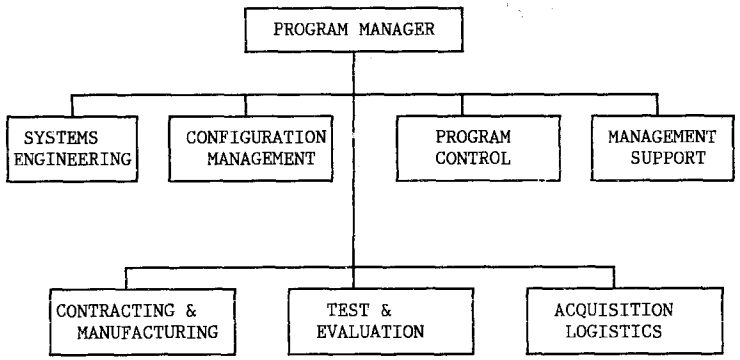
EXHIBIT II-40

TYPICAL PROGRAM OFFICE



Three categories of engineers are associated with the program management function: systems engineers, responsible for the engineering aspects of program integration (normally collocated); functional engineers, associated with a particular engineering discipline or specialized expertise, such as electronic or aeronautical engineering (dedicated or collocated); and specialty engineers, found in the Product Assurance Division, and primarily responsible for special engineering functions such as Reliability and Maintainability.

A review of the Aeronautical Systems Division Product Division serves to illustrate the organization of Program Offices in the field (Exhibit II-41). Within ASD, there are 10 major systems SPOs: B-1B, B-2, F-15, F-16, C-17, Advanced Tactical Fighter (ATF), Short-Range Attack Missile II (SRAM II), LANTIRN, Advanced Cruise Missile, and Joint Tactical Autonomous Weapons. There are also 7 other SPOs for various aeronautical functions such as propulsion and training. These are referred to as "basket" SPOs and are responsible for the acquisition of systems in support of airframes and other aeronautical functions. All the SPOs receive functional support from the various functional Deputates and other organizations within ASD, including Aeronautical Laboratories.

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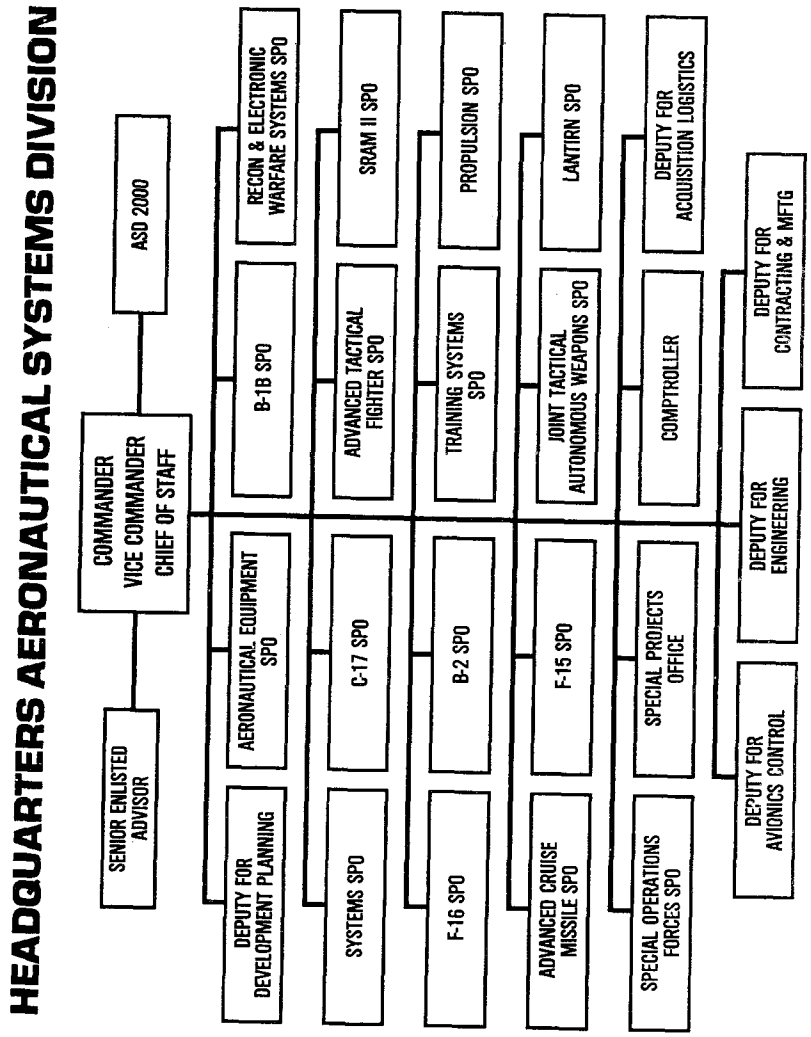
EXHIBIT II-41

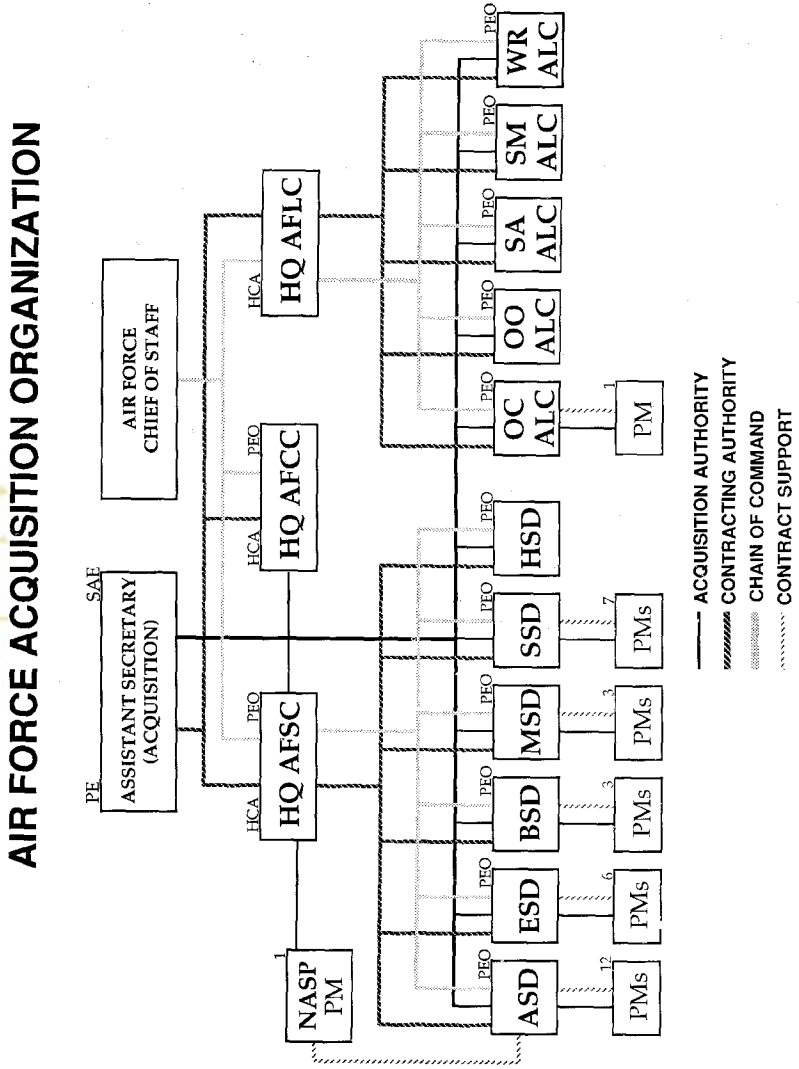


Within Air Force Logistics Command, there are the equivalent of Program Managers assigned to the Air Logistics Centers. These are the Systems Program Managers within the Directorate of Materiel Management. They are responsible for logistically supporting these weapon systems and for major and minor modifications to these systems. In the management of Class 4 and 5 modifications (necessary to insure safety or provide improved operational capability) to the weapon systems, the System Program Managers perform an inherently Program Management type function. The commanders of the five Air Logistics Centers also are "dual-hatted" as PEO's.

Air Force Acquisition Management

Exhibit II–42 indicates the organization of the Air Force three-tier acquisition management structure of Program Executive Officers (PEOs), and Program Managers, and shows their relationship to the Service Acquisition Executive (SAE). Acquisition management authority flows from the SAE to one of 13 PEOs. These PEOs are also in the normal military organizational chain of command, either as the AFSC Commander, as Product Division Commanders, as Air Logistics Center Commanders, or as Commander of the Air Force Communications Command. There are program management personnel and organizations within each of these MAJCOMS. However, this exhibit only indicates the number of Program Managers of major programs. All major programs are in the Air Force Systems Command except for the KC–135 re-engining program, which is managed by the System Program Manager at Oklahoma City Air Logistics Center. Contracting authority devolves from the Assistant Secretary of the Air Force (Acquisition) as the Senior Procurement Executive, and flows to the Commanders of AFSC, AFCC and AFLC, who are all HCAs.

EXHIBIT II–42



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Defense Logistics Agency

The Defense Logistics Agency (DLA) is a separate agency of the Department of Defense under the direction, authority, and control of the Undersecretary of Defense (Acquisition). It has three support missions for the military services: supply support consisting of buying and providing supplies; contract administration; and, technical and logistics support. To accomplish its missions, DLA is organized, as shown at Exhibit II-43, into a Headquarters, Supply Centers, Depots, Service Centers, and Contract Administration Service Regions organizations. Headquarters, DLA has a Director and two Deputy Directors, all military. The Director is a three-star general appointed from one of the Services (generally on a rotational basis). One of the Deputy Directors is responsible for Acquisition Management.

Three Staff Directorates under the Deputy Director for Acquisition Management have primary responsibility for contract award and management activities within DLA. The Directorate of Contracting is responsible for the pre-award contracting function and has cognizance over the associated contracting activities within DLA. The Directorate of Contract Management and the Directorate of Quality Assurance have cognizance over the post-award functions.

Acquisition activities are also conducted at: the six Defense Supply Centers (Exhibit II-44) (electronics, industrial, construction, personnel, fuels, and general); at the six Defense Depots; and some service centers.

EXHIBIT II-43

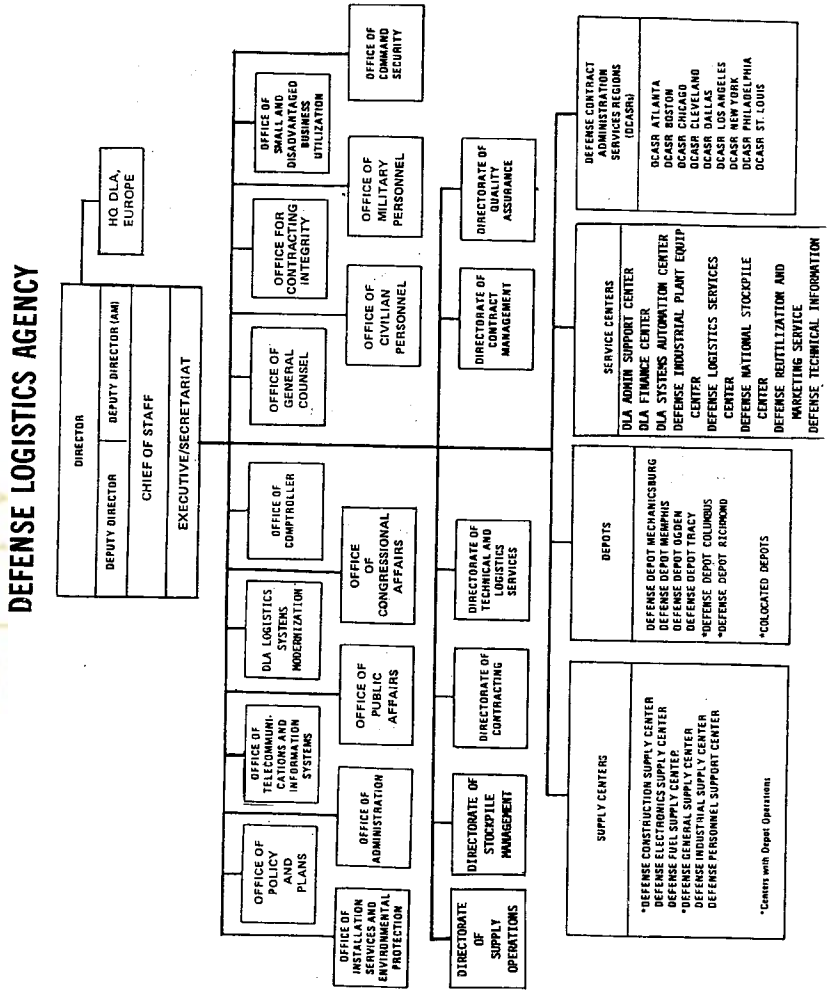

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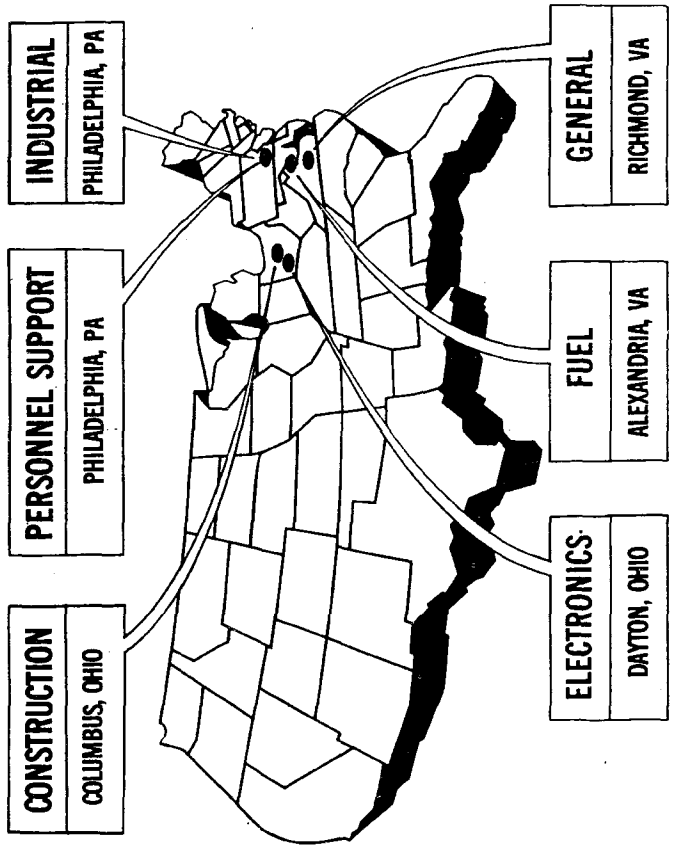
EXHIBIT II-44



DLA Contracting Organization

The great majority of DLA contracts are awarded by the Supply Centers. Within each Supply Center, there is a central contracting function that is responsible for the wholesale buying of common items managed by that Supply Center. The Directorate is typically organized into various Contract Divisions to buy specific classes or groups of commodities, a pricing office, a contract review office, and a policy office. This organization is similar to a centralized, wholesale contract organization in the Services—such as an Air Force Air Logistics Center. The Defense General Supply Center in Richmond is typical of the Supply Center organization structure and its Contracting Directorate (Exhibit II-45).

DLA supports the procurement of materiel by centrally administering certain contracts awarded by the services, defense agencies and some civilian agencies as well as foreign governments through its nine Defense Contract Administration Services Regions (DCASRs) as shown at Exhibit II-46. The DCASRs employ 34% of DLA's entire workforce.

Administrative Contracting Officers (ACOs) in the DCASRs oversee the full range of post-award contract functions as well as limited pre-award activities such as pre-award surveys and cost proposal evaluations. Within the DCASRs are DCAS Management Areas (DCASMAs)—39, and DCAS Plant Representative Offices (DCASPROs)—46 total. In addition to the DCASPRO offices, DLA also has resident representatives in about 1,200 contractor facilities. In addition, DCAS has responsibility for surveillance of approximately 17,000 non-resident contractor facilities which it accomplishes on a non-resident or itinerant basis. Exhibit II-47 shows the organization of a typical DCASR organization.

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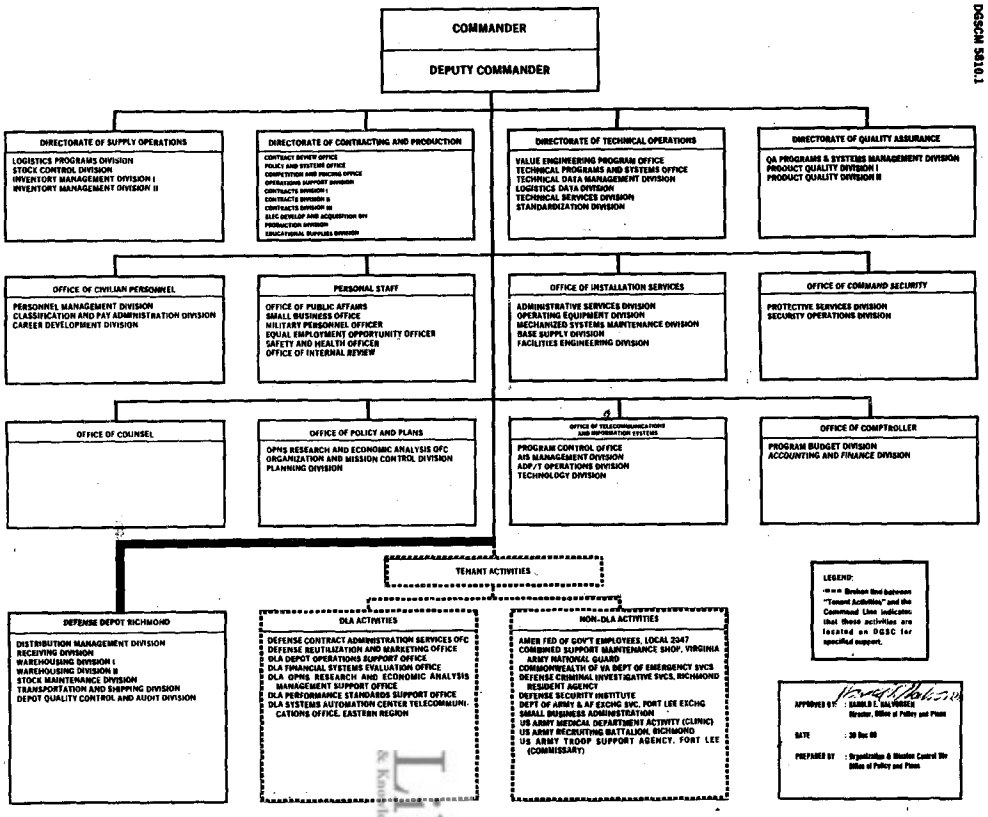
EXHIBIT II-45

DGSCM 5810.1

DEFENSE GENERAL SUPPLY CENTER



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DEFENSE CONTRACT ADMINISTRATION SERVICES REGIONS

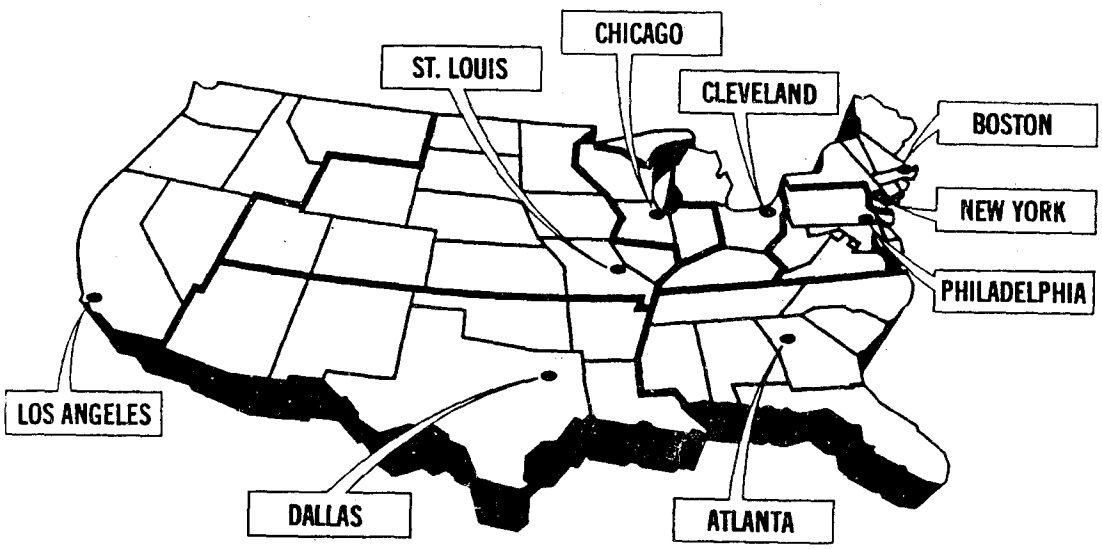
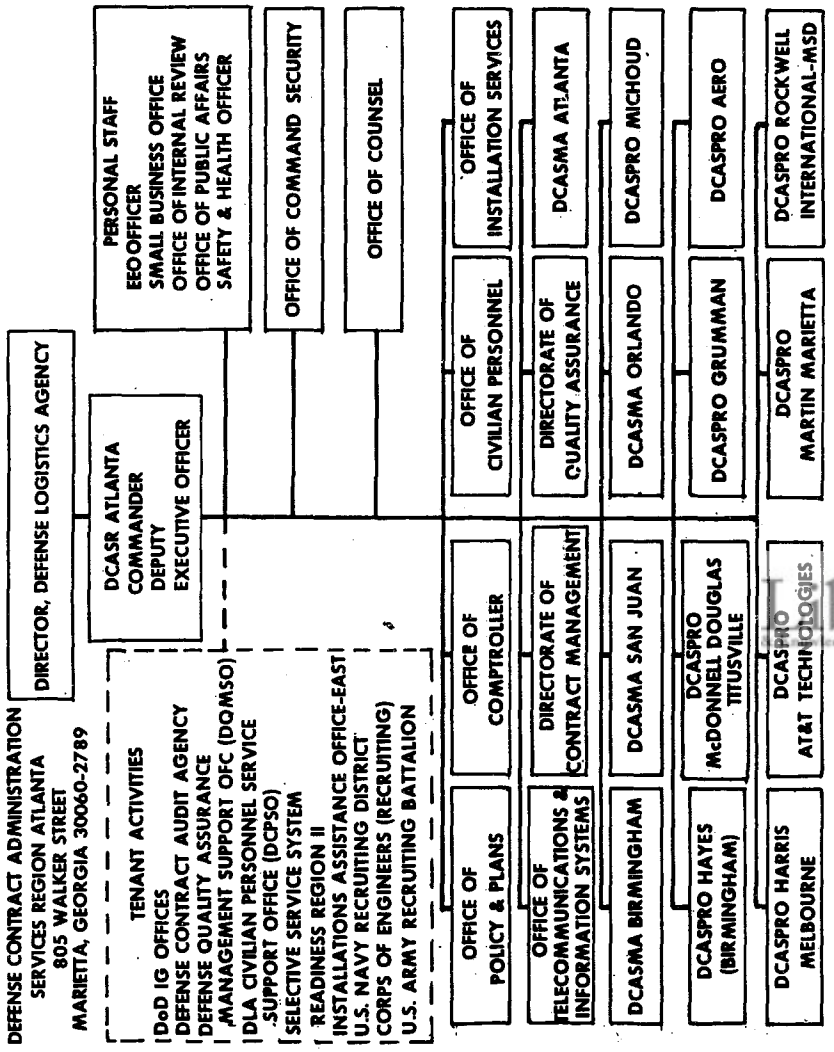


EXHIBIT II-46

EXHIBIT II-47



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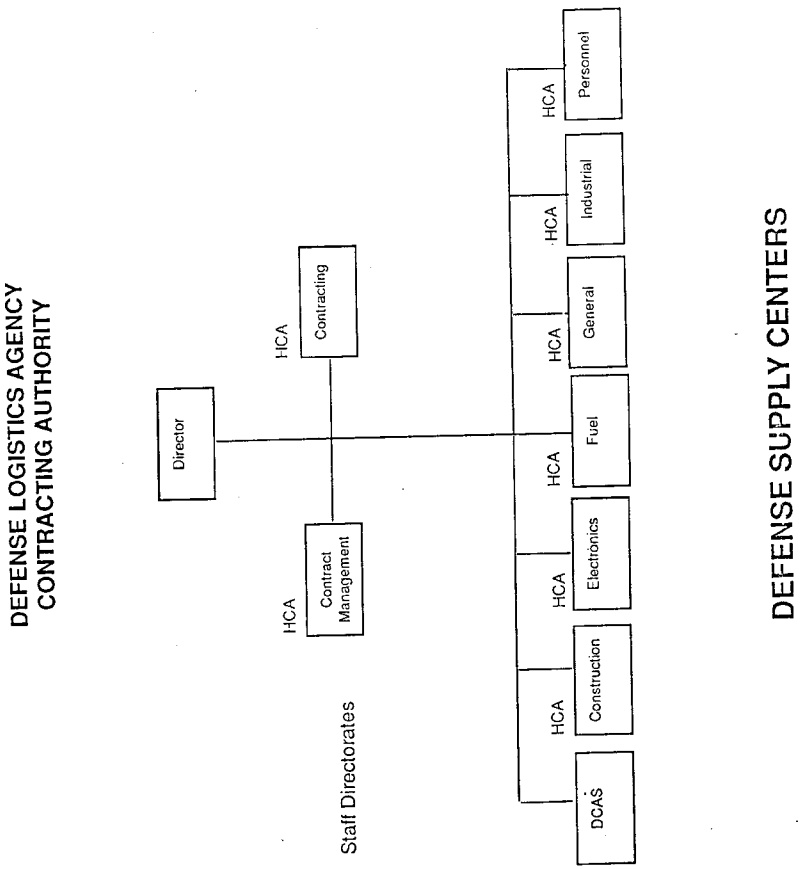
Head of Contracting Activity. Exhibit II-48 indicates the flow of contracting authority from the Director of the Defense Logistics Agency to the various heads of contracting activity. At the headquarters staff level both the Directorates of Contracting and Contract Management are HCA's. The commanders of the six Supply Centers also serve as HCA's.

EXHIBIT II-48



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CHAPTER III—PERSONNEL MANAGEMENT—ORGANIZATION, POLICIES, AND DATA SYSTEMS

To understand the role of the program manager and contracting officer, and to evaluate the challenges confronting the department in the development and management of a professional acquisition workforce, requires an understanding of the personnel management organizations, policies and systems which collectively impact the development and operation of this workforce. This chapter discusses the: (1) differences and similarities between the military officers and civilian personnel who comprise this workforce, and how that effects the management of the workforce; (2) elements of the personnel management systems; (3) organizational influences within the Office of the Secretary of Defense, the Military Departments, and DLA; (4) personnel management policy guidance for both civilians and military; and (5) personnel management data systems in each of the Departments and DLA.

MILITARY AND CIVILIAN PERSONNEL MANAGEMENT DISTINCTIONS

There are both fundamental similarities and differences between military officers and civilian personnel, even though in some instances both types of personnel may be involved in the same type of work. An understanding of these and other differences as well as an understanding of the growing number of similarities between these two elements of the defense acquisition workforce is critical for charting future acquisition workforce requirements and for developing the personnel needed to meet these future workforce requirements.

Historical Origins

Both the similarities and the differences between military and civilian personnel are rooted in the unique historical developments of each.

Military Officers Corps

The officer corps is fundamentally different in its origins, purpose, and organization than the civil service. This difference is best explained by Samuel P. Huntington in *The Soldier and the State*:

> The officer corps is both a bureaucratic profession and a bureaucratic organization. Within the profession, levels of competence are distinguished by a hierarchy of ranks; within the organization, duties are distinguished by a hierarchy of office. Rank exists in the individual and reflects his professional achievement measured in terms of experi-

> ence, seniority, education, and ability. Appointments to rank are normally made by the officer corps itself applying several principles established by the state. . . . An officer is permitted to perform certain types of duties and functions by virtue of his rank; he does not receive rank because he has been assigned to an office . . . the professional character of the officer corps rests upon the priority of rank over the hierarchy of the office.

Military officers are a product of a long evolutionary development, from the feudal knight through the citizen soldier to the current professional military officer corps of today. Officers develop a special military competence, which distinguishes them from civilians. This special competence is what Harold Lasswell called "the management of violence." Officers require a high order of expertise and must be prepared and trained physically, intellectually, and psychologically to fight.

Civil Service

The development of a modern civil service is inextricably tied to the rise of the modern nation-state. Like the military, its reason for being is to serve the state. The modern civil service has its antecedents in two historical models: the 19th century British system and the 18th century continental system of France and Prussia. In fact, the 18th century Prussian civil service is considered the prototype of the modern civil service. In it one finds the distinguishing characteristics of modern bureaucracy. These include the following concepts: processes and procedures are based on the rule of law; the duties of each official to do certain types of work are delimited in terms of impersonal criteria and rules; officials are given the necessary authority, hierarchically ordered, to carry out their assigned functions; official business is strictly separated from private business; and, employees must be technically qualified and obey impersonal rules.

The United States civil service came into being with the 1883 Civil Service Act (Pendleton Act). Based on the European models, the most essential characteristic was the concept of merit. This notion was best explained by Bernard Rosen (U.S. Congress, House of Representatives, Committee on Post Office and Civil Service, *The Merit System in the United States Civil Service,* 94th Cong., 1st Sess. (Committee Print No. 94-10), Washington, 1975):

> A merit system is a fair and orderly process for hiring, paying, developing, promoting, retaining, disciplining, and retiring people on the basis of ability and performance . . . a merit system is based on merit principles; it is designed to produce a competent, stable work force to carry on the business of government.

This system of merit has been manifested through three basic principles: competence, stability, and political neutrality. Historically, the civil service has sought to hire the best-qualified people to perform the work of government. This means "recruitment via competitive examinations, or on the basis of 'job ability' or 'individual competence'" (U.S. Congress, House of Representatives, Committee on Post Office and Civil Service, *History of Civil Service Merit Systems of the United States and Selected Foreign Countries,* 94th Cong., 2nd Sess. (Committee Print No. 94-29), Washington, 1976). Stability connotes a stable group of employees dedicated to carrying out the policies established by officials responsible for policy formulation. This requires the absence of arbitrary removals and the relative security of tenure. The last principle, political neutrality, is the basis for the civil service's stability and continuity. There are two other subsidiary principles of the merit system: equitable and adequate compensation, and training programs to assure high-quality performance.

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Personnel Distinctions

Herein lie the two root distinctions between officers and civil servants. The former, first and foremost, exist to organize, equip and train military forces, plan their activities, and direct operations in and out of combat. As a result, military officers are members of the officer corps first and, secondarily, technical experts. The primary objective of the military personnel system is to develop an officer corps capable of carrying out the Service's basic missions. Civil servants perform civil governmental functions or are employed to engage in jobs very similar to these found in the private sector, such as data processing, education, research and engineering, and numerous clerical and administrative functions. However, within the Department of Defense civil servants are charged with carrying out the non-combatant missions of their Department or Agency. Secondly, military rank resides in the individual, whereas for civil servants, the grade resides in the position they occupy.

Notwithstanding the basic distinctions in personnel management and orientation between military officers and civil servants, there has been an increased tendency to merge the duties of both and to narrow the skill differentials between the military and civil service. Morris Janowitz described this tendency in *The Professional Soldier (1971):*

> The new tasks of the military require that the professional officer develop more and more of the skills and orientations common to civilian administrators and civilian leaders. The narrowing difference in skill between military and civilian society is an outgrowth of the increasing concentration of technical specialists in the military. The men who perform such technical tasks have direct civilian equivalents . . .

The growing similarities of functions and duties performed by military and civilian personnel in the acquisition workforce will be further discussed in Chapter VIII of this report on military and civilian mix.

ELEMENTS OF THE PERSONNEL MANAGEMENT SYSTEMS

As a result of the basic differences discussed above, civilian and military personnel management systems also differ. One salient difference is that military personnel management is much more

centralized than civilian personnel management. Nonetheless, there are common personnel management phases for each, which can be used to compare the similarities and differences, as follows: recruitment or accession, training, career management, and retirement or separation.

Accession

The accession or recruitment function is the phase in which individuals are recruited or hired. The recruitment of military officers is centralized in terms of identifying the types and numbers needed. In the civil service this function has fundamentally been decentralized and is done locally.

Training

Training represents the second phase in a career program. Implicit in this concept is the notion that training to provide individuals the basic technical and managerial skills to perform at an acceptable level of competence is on-going throughout a person's career or period of service so that their capabilities may be enhanced. Again, there are basic distinctions between the military and civilian personnel programs.

The concept of a military *career* for officers is long-established. This entails professional development, in part through completion of Professional Military Education (PME) consisting of entry, intermediate, and senior level professional military education. For example, at the senior level there are war colleges in each of the Military Departments in addition to the National War College and Industrial College of the Armed Forces. Also, the Services have emphasized graduate education in functional and technical specialties. Both the management of PME and graduate education tend to be centralized with technical training less so.

There is no comparable system of professional education for civilians nor is there a recognized emphasis on graduate programs in an individual's technical specialty. Instead, civilian training has typically been in the form of continuing education-type short courses in particular specialties. In recent years, the Services have begun to encourage, though on a lesser scale, the same types of training for civilians as for military. However, the management of the process is much less centralized.

Career Management

The next phase, career management, involves the full utilization of personnel in current positions and their career development or enhancement for progression to more demanding and higher graded positions. In the career management phase, the approach is far more centralized for military officers than civilians. Officer assignment and utilization is highly centralized, as is the promotion process. Civilians are almost solely reliant on individual initiative in managing their careers. Civilian jobs have typically been filled locally, with local managers and commanders making assignment decisions. Normally, the promotion of a civilian is left to the selecting supervisor at the local level and the area of competition tends

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to be local unless the Service has established a contravening policy. Typical "career enhancing" assignments have long been known to officers whereas established career paths with typical assignments, for civilians is a relatively new phenomenon. Officer assignments are rarely for a period of more than four years, whereas civilians generally know they are in a job or position until they can be promoted, transferred, reassigned or are separated by resignation, retirement or removal.

An essential aspect of career management in terms of promotions and assignments is the performance evaluation system. There are significant differences between the civilian and military performance systems. Performance evaluations for officers are a key aspect of their promotability, and it is not just the last performance report that is important; rather, it is the cumulative effect of all performance reports that is considered by a promotion board. Civilian performance evaluation has tended to play a more neutral role in an individual's career development. Although as a general rule performance appraisals are not considered beyond three years for civilians, individuals with poor ratings do not get promoted, do not get merit/incentive pay raises, and do not get additional credit for retention in the event of reductions-in-force. Certainly, the civilian evaluation system, while emphasizing performance, is more forgiving than the military system.

Retirement

The last phase is retirement and/or separation, and is basically concerned with loss management. This last phase is of some consequence as it affects the planning for future procurement of personnel. There are fundamental distinctions between the two systems. In the case of the military, officers must retire (are mandatorily removed) after a certain maximum number of years. Officers may also retire earlier than civilians, after 20 years of active Federal commissioned service. However, retired military are subject to recall to active duty in the event of a national emergency. This concept of recall is integral to their early retirement system. Conversely, the Civil Service Retirement System (CSRS) was established in 1920 in response to the growing need for an efficient and humane method for removing from the active civil service tenured employees whose age or infirmity prevented the satisfactory performance of their duties. Its primary objective was to improve the economy and efficiency of public management by staffing positions with employees fully capable of carrying out their duties. Since its inception, the focus has changed such that the CSRS has become a comprehensive employee income protection program.

On January 1, 1987 a new civil service retirement system went into effect—the Federal Employees' Retirement System (5 U.S.C. Chapter 84) or FERS. The new system applied to all employees hired after January 1, 1984, and any other employee desiring to shift from the CSRS system. Two key provisions of the FERS was linkage to the Social Security Act and the "portability" of FERS. The benefits payable under FERS were in addition to the benefits payable under Social Security. Also, employees covered under FERS could take their retirement benefits with them. This will

allow individuals to enter and leave the civil service more easily as they are not held by the "golden handcuffs" of the Civil Service Retirement Systems (CSRS).

Impact of the Different Processes

All of these factors tend to lead to different motivations and approaches to developing a career force. It is not an exaggeration to say that the two comprise different cultures. Military officers comprise a body of professionals with a long, proud tradition—an esprit de corps. Modern military officers typically view the military as a career, and envision that career advancement requires geographical and organizational mobility, as well as continued training and education. The attributes of a career program exist within the military. However, we must note that the requirements for career development are the same for any military member and are generally not directed towards the specific technical specialty of the person. For example, continued education and training, as well as mobility, are required of all officers regardless of technical specialty.

The orientation of civilians, on the other hand, has typically been their technical specialty. Civil servants in the United States have been hired, to a large degree, on a local basis to perform a specific job. There was a presumption that when hired the person would be qualified to perform that job. Thus career development was left to the individual. If the person chose to further their education in order to make themselves qualified for a new job they might do so, but specific career enhancement is not required as a condition of further job advancement.

These differences in orientation are evident in analyzing the characteristics used to judge the quality and professionalism of the acquisition workforce, and must be taken into account in any effort to improve the quality and professionalism of the workforce—be it military or civilian.

OFFICE OF THE SECRETARY OF DEFENSE PERSONNEL MANAGEMENT

OSD Personnel Management Organizations

The Secretary of Defense is supported in the management of the Department by the staff of the Office of the Secretary of Defense (OSD). While OSD organizational structure was discussed in Chapter II, it is important to highlight here the offices of two OSD officials having a key role in the career management of the acquisition workforce—the Under Secretary of Defense (Acquisition) and the Assistant Secretary of Defense (Force Management and Personnel).

Under Secretary of Defense (Acquisition)

Among his many other responsibilities, the Under Secretary of Defense (Acquisition) is charged with responsibility for developing policy for the training and career development of DOD military and civilian acquisition personnel, a function previously assigned to the Assistant Secretary of Defense (Acquisition and Logistics). Within the office of the USD(A) there is a division of responsibility

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along functional lines between the Assistant Secretary of Defense (Production and Logistics) for contracting personnel, and the Director for Program Integration for Program Managers. However, within the USD(A)'s organization only one individual, who is assigned to the ASD (Production and Logistics), is responsible for policy formulation, guidance, and monitoring the entire DOD acquisition workforce.

As will be discussed in more detail in Chapter VII, the Under Secretary of Defense (Acquisition) is assisted by the Defense Systems Management College (DSMC) in providing the professional education of DOD acquisition and Program Management personnel. As the USD(A)'s executive agent, DSMC is charged with providing full-time oversight for DOD-mandated acquisition education and training.

Assistant Secretary of Defense (Force Management and Personnel)

The ASD (FM&P) has responsibility for several pertinent policy directives relating to the personnel management of the DOD acquisition workforce. For example, the ASD (FM&P) is responsible for the following: personnel management systems, career development, civilian employment and staffing policy and programs, compensation for military and civilian personnel, reassignment of military personnel, training and education of military and civilian personnel, Total Force structure analysis, military and civilian manpower requirements analysis and related resource distribution in support of peacetime operations and mobilization needs, work force motivation, and the review and evaluation of the requirements of major automated information systems requiring Secretary of Defense approval for manpower, personnel and training requirements (DODD 5124.2, July 5, 1985).

The ASD (FM&P) is to provide overall guidance and policy direction for civilian career programs; coordinate their development and evaluate their effectiveness; establish DOD-wide civilian career programs and provide staff guidance to OSD Principal Staff Assistants; issue appropriate manuals, forms, and other publications; and, provide for automating the central inventory and referral systems and operation of such systems.

In the implementation of acquisition workforce policies, there are two important organizations under the authority of the ASD (FM&P): the Defense Manpower Data Center (DMDC) and the Training and Performance Data Center (TPDC). Their responsibilities in this regard are primarily in the area of data collection on the training and demographics of the acquisition workforce. DMDC has been charged with developing a functional and training-related data base to track the training history status of acquisition personnel. The Training and Performance Data Center develops and maintains an education and training information data base of course requirements. The DOD training infrastructure, including courses and facilities, and a newly established Defense Management Education and Training Board also fall under the purview of the ASD (FM&P).

acquisition workforce. The Secretary of Defense has promulgated a number of personnel and acquisition policy directives affecting the training, quality, education, career program and personnel distribution of the acquisition workforce—both military and civilian. The most important of these, for the purpose of this report, are listed in Exhibit III-1. While military personnel policy is generally promulgated by the individual Services and will be discussed further in succeeding sections of this report, some DOD directives discussed below apply both to civilian and to military personnel management.

EXHIBIT III-1—DEPARTMENT OF DEFENSE POLICY DOCUMENTS

DOD Policy document	Type [1]	Contents	Date
1100.4	D	Guidance for Manpower Programs	August 20, 1954.
1100.9	D	Military Civilian Staffing of Management Positions in the Support Activities.	September 8, 1971.
1400.24	D	Civilian Mobility Program	January 12, 1976.
1400.25-M	M	DOD Civilian Personnel Manual	July 30, 1978.
1400.5	D	DOD Policy for Civilian Personnel	March 21, 1983.
1430.10-M	M	DOD Policy and Procedures Manual for Automated Career Management System.	February 1982.
1430.2	D	Civilian Career Management	June 13, 1981.
1430.4	D	Civilian Employee Training	January 30, 1985.
1444.2	I	Consolidation of Automated Civilian Personnel Records	September 16, 1987.
4245.1	D	Military Department Acquisition Management Officials	July 8, 1986.
5000.1	D	Major and Non-Major Defense Acquisition Programs	September 1, 1987.
5000.52	D	Defense Acquisition Education and Training Program	August 22, 1988.
5000.52	I	Reporting Functional and Training-Related Data on DOD Military and Civilian Acquisition Personnel.	August 12, 1988.
5000.52-M	M	DOD-Wide Career Programs for Acquisition Personnel	Draft.
5010.16	D	Defense Manpower Education and Training Program	July 28, 1972.
5100.1	D	Functions of the Departments of Defense and Its Major Components	September 25, 1987.
5124.2	D	Assistant Secretary of Defense (Force Management and Personnel)	July 5, 1985.
5128.1	D	Assistant Secretary of Defense (Acquisition and Logistics)	November 19, 1985.
5134.1	D	Under Secretary of Defense (Acquisition)	February 10, 1987.
5160.55	D	Defense Systems Management College	August 22, 1988.

[1] D = Directive. I = Instruction. M = Manual.

As discussed below, the existence of DOD guidance in this area is not new. DOD established personnel policy guidance as early as the 1960's for contracting personnel and for Program Managers. The policies have evolved and been refined through the years as the concept of acquisition has expanded to include additional functions, and in response to various recommendations for improving the acquisition workforce. This evolutionary policy culminated on August 22, 1988 with the issuance of DOD Directive 5000.52, "Defense Acquisition Education and Training Program," which is included in this report as Appendix III-1. DODD 5000.52 merged the existing contracting and Program Management career program policy directives and expanded the scope to include other personnel in the acquisition workforce.

Evolution of OSD Policy for Contracting Personnel. Prior to the adoption in December 1986 of DODD 5000.48, "Experience, Education, and Training Requirements for Personnel Assigned to Acquisition," and its replacement DODD 5000.52 in August 1988, contracting or procurement personnel policy was guided by DOD Procurement Manual 1430.10-M-1. Adopted in 1966, this manual created a DOD-wide civilian career program for procurement or contracting personnel. However, the historical antecedents extend to 1952 when the Secretary of Defense issued DOD Directive 4000.8, requiring each Military Department to establish a definitive program of recruitment and training of competent military and civilian personnel in procurement. In July 1961, DOD Directive 1430.6, "Armed Services Procurement Training Program," established training for military and civilian contracting personnel.

The civilian contracting career program later called for in DOD 1430.10-M-1 had many attributes of what Task Group 6 of the Committee on Federal Procurement Reform posited as a classic career program: career patterns through Master Development Plans, mandatory training courses, a mandatory central registration and referral system, career counseling, career program evaluation based on management information reports and management reviews, and a top-level career board structure. It had three primary objectives: (1) to address current and future requirements for contracting and acquisition personnel and to provide capable replacements for senior positions on a planned, systematic basis; (2) to attract, select, develop and retain on a long-term basis a highly qualified work force capable of performing current and future functions; and, (3) to increase the proficiency of DOD contracting and acquisition employees in their present positions and to provide opportunities for broadening experiences and progression commensurate with their abilities. The Manual also provided that senior, GS-13 and above, positions generally be filled through a DOD-wide central referral system known as the Central Automated Inventory and Referral System (CAIRS). This mandatory system was later changed to the Automated Career Management System (ACMS) and was managed first by the Defense Electronics Supply Center within DLA, and later by the Air Force Civilian Personnel Management Center. The ACMS referral system was disestablished in 1986 by the Assistant Secretary of Defense (FM&P).

On December 9, 1986, DODD 5000.48, was promulgated to establish experience, education, and training requirements for contracting, quality assurance, and business and financial management positions. In one sense it was intended as an amplification and continuation of the concepts contained in DOD 1430.10-M-1 for contracting personnel and as well as DOD 1430.10-M-2 (for Quality and Reliability Assurance personnel.) However, it made several significant and wide-ranging extensions vis-a-vis these manuals. For the first time since the early 1960s, the same training and educational requirements applied to military personnel that applied to civilians. It also applied to civilians in the competitive and excepted service schedules A, B, and C and in the Senior Executive Service. Second, the scope of applicability was extended to the Reserve and National Guard. Occupational series coverage was now expanded to include three previously excluded series: Purchasing (GS-1105), Procurement Clerk/Assistant (GS-1106), and Business and Financial Management multiple series as opposed to the GS-1101 series. It also made positive educational requirements for civilians a "quality ranking factor." For the contracting series (GS-1102), 24 semester hours in "accounting, economics, business law, procurement, or management-related studies" were required. It rationa-

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lized and consolidated the mandatory training requirements for civilian contracting personnel and correlated them to their military counterparts as follows:

Level	Civilian grade	Military rank
I	GS-5/7	0-1/3.
II	GS-9/12	0-3/4.
III	GS/GM-13/15	0-4 and above.

It correlated civilians to enlisted military members in the following series:

Series	Level	Civilian grade	Military rank
GS-1105	I	GS-4/6	E-1/7.
	II	GS-7/8	E-6/9.
GS-1106	I	GS-3/5	E-1/7.
	II	GS-6/7	E-6/9.

This Directive laid out a general career path for contracting personnel in four specific areas: required and desired education; mandatory training; a description of the typical duties of the contracting specializations at each level; and, the minimum experience required at each level. At Level I, a baccalaureate degree would be the only necessary experience. At Level II, an individual must have contracting experience of increasing complexity and responsibility, including at least one year at the GS-7 level and familiarity with the various functional and technical areas of contracting. At level III, the experience requirements were significantly more demanding and included four years of contracting experience, at least one year of which was at the preceding grade level. In addition, the individual was required to have demonstrated knowledge of the policies and procedures for the full-range of pre-award and post-award techniques, negotiation ability, and ability to analyze financial data and arrive at fair and reasonable negotiation objectives.

DODD 5000.48 further required that each DOD Component must have "a procurement intern program that is centrally managed and controlled to provide a source of highly qualified candidates for high level procurement positions." It allowed for the "grandfathering" of the education and experience criteria for current employees. However, the training criteria were not grandfathered, but individuals would have one year after entering the level to acquire this training. Individuals being cross-trained into the series must meet the entry level requirements for that function, regardless of grade or rank. For example, a colonel entering the career field of contracting would be required to meet the training requirements for Levels I and II as well as Level III and would have one year to obtain this training. However, the DOD components could waive the grade, experience, education, or training requirements if an individual is determined to be otherwise qualified.

The USD(A) was authorized to modify, extend, or eliminate the experience and training requirements in conjunction with the ASD (FM&P). The Directive was effective on January 1, 1987, and the

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Components were required to forward copies of their implementing documents to the USD(A) within 120 days.

Evolution of DOD Personnel Policy for Program Managers. The qualifications and tenure of Program Managers has been a longstanding concern within the Department of Defense. Secretary of Defense McNamara initiated steps to train Program Managers culminating in the establishment of the Defense Systems Management College. In 1965, DOD Directive 5010.14, "System/Project Management," made it "mandatory that the System/Project Manager and his staff have a high degree of technical and business managerial competence, supplemented whenever possible by recent experience in system/project management, and by training in the special requirements of such management." This Directive also required that System/Project Managers have sufficient rank and stature within the organization. Secretary of Defense Melvin Laird and Deputy Secretary of Defense David Packard were also concerned with the quality and tenure of quality Program Managers.

Notwithstanding the existing Department of Defense policy, in September 1969 the Defense Science Board Task Force on Research and Development Management, in its *Final Report on Systems Acquisition,* concluded that a "major increase in the recognition, the status, and the opportunities in Program Management may be necessary to attract and retain a larger share of the most capable career officers" for system acquisition management. The next year the Fitzhugh Commission (*Blue Ribbon Defense Panel*) identified the status of Program Management as a weakness in defense acquisition. In May 1970 Deputy Secretary of Defense Packard issued a memorandum "Policy Guidance on Major Weapon System Acquisition" observing that "Program Management in the Services will be improved only to the extent that capable people with the right kind of experience and training" are appointed as Program Managers.

DOD Directive 5000.1, "Acquisition of Major Defense Systems," was issued in July 1971, replacing DOD Directive 5010.14, and served as the cornerstone of the Department of Defense efforts to improve acquisition management. Among other management improvements, it raised the stature and authority of Program Managers.

DOD established policy for the selection, training, and career development of Program Managers on November 26, 1974 with issuance of DODD 5000.23, "System Acquisition Management Careers". Recognizing the necessity for experienced and competent personnel, this Directive required that career opportunities be established to attract, develop, retain and reward outstanding military officers and civilian employees required as Program Managers or Deputy Program Managers.

DOD Directive 5000.23 established the following minimum standards for experience and training of Program Managers: O-6 and civilian equivalents should have previous Program Management or system acquisition experience, including one or more assignments to a program office. General or flag rank officers should be considered only if they had "substantial experience" including experience at 05/06 level or civilian equivalent and have completed the Program Management Course or the Executive Refresher Course at

DSMC. The Directive required the development of career progression plans that identified types of desired experience, training and professional education and stipulated that Program Managers should change—if necessary—near completion of major program milestones. It placed Program Management as a career on an equal footing with operational, line, and command positions and directed the selection of personnel on the basis of skills and experience regardless of civilian or military status, although the accompanying memorandum favored military over civilian Program Managers.

DOD Directive 5000.23 was reissued on December 9, 1986 to implement the provisions of Public Laws 98-525 and 99-145 as well as DODD 5000.1, "Major and Non-Major Defense Acquisition Programs." It reiterated eligibility criteria and the policy for selection, training, career development, and tenure of DOD personnel assigned as Program Managers, Deputy Program Managers (DPMs) and to certain positions in support of acquisition Program Management while incorporating statutory requirements. Unless specifically waived by the Secretary of the Military Department for Program Managers of major programs (or his single, Department-wide representative for less than major programs), every prescribed standard must be met before assignment as Program Manager or DPM. For civilian personnel, the mandatory educational requirement should be treated as "quality ranking factors" to the extent they differed from the OPM Handbook 118, "Qualification Standards for Positions Under the General Schedule."

In addition to the requirements for Program Managers, DODD 5000.23 also required the establishment and maintenance of appropriate career fields for military and civilian acquisition managers (people who would eventually be subject to selection as Program Managers). DOD components were directed to: determine the approximate number of personnel at each rank/grade and specialty to man a career field for the foreseeable future; maintain current rosters of civilian and military personnel who have formally indicated a desire to become professionals in a recognized acquisition-related job series, specialty or subspecialty and each one's current qualifications; institute methods to centralize employment opportunity information; establish, via identification and training, a cadre of personnel adequate for future needs; performance measurements shall be developed to insure that only the most competent individuals are retained and advanced and a performance monitoring systems shall be maintained. Importantly, from a military perspective, opportunities for advancement in acquisition career fields were to be considered equivalent to those in operational, line or command positions "and the directive provided that where boards are established for the purpose of selecting individuals for advancement, they shall include experienced system acquisition managers to ensure that only the best qualified individuals, based on demonstrated performance, are selected for promotion." The Directive went into effect on October 1, 1987, but allowed grandfathering of individuals who had demonstrated performance. DOD components were required to submit their implementing documents within 90 days, and the USD(A) was charged to monitor component implementation and to direct or recommend changes in component implementation after consultation with ASD (FM&P). As previously noted, DODD 5000.23 was superseded by DODD 5000.52.

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Current Acquisition Personnel Policy. There are currently three acquisition policy Directives affecting the career development, training, and education of acquisition personnel (both civilian and military)—DODD 5000.1, DODD 5000.52 and DODD 5160.55. The latter, as previously mentioned, expanded the role of the Defense Systems Management College in training the acquisition workforce.

DOD Directive 5000.1 (September 1, 1987) sets forth the policies, principles, and objectives for managing major and non-major defense acquisition programs. It establishes the streamlined acquisition organization (three tier management structure) of Service Acquisition Executives (SAEs), Program Executive Officers (PEOs), and Program Managers.

In addition, this Directive made the heads of each DOD component having cognizance over acquisition programs responsible for assuring that: (1) high quality, experienced personnel are assigned to acquisition management positions within the component in support of the Service Acquisition Executive, Program Executive Officer, and Program Manager, as appropriate; (2) that the tenure of key personnel, such as the PEO and Program Manager, is of sufficient length to provide continuity and management training and career incentive programs to attract, retain, motivate and reward personnel occupying acquisition management positions; and, (3) the performance appraisal system within the component for PEOs and Program Managers is consistent with the streamlined acquisition management structure.

As previously noted, DOD Directive 5000.52, "Defense Acquisition Education and Training" (August 22, 1988), is the basic policy directive on acquisition workforce career development. This Directive streamlined and rationalized policy guidance by eliminating the previous plethora of DOD policy documents (DODDs 5000.23 and 5000.48, DODI 5100.58, DOD 1430.10-M-1 and DOD 1430.10-M-2). It sets forth the basic DOD policies and expands the applicability of system acquisition management career programs to the Reserve and National Guard. However, this Directive does not stand alone. It is intended to be complemented by two additional DOD documents: DODI 5000.52 and DOD 5000.52-M, both of which are still in draft and appear in this report as Appendix III-2 and Appendix III-3.

DOD 5000.52-M (Draft) which began the formal coordination cycle in April 1988, is a rationalized compendium of previously existing acquisition workforce directives, e.g., DODD 5000.48. While retaining the basic policy goals contained in DODD 5000.48 and 5000.23 it expands the scope of the acquisition workforce by now including additional occupational series such as the GS-8XX (Engineering) and GS-11XX (Business and Industry) personnel performing manufacturing/production and quality/reliability assurance functions; logisticians (multiple GS series); systems engineers; and, other acquisition specialties as determined by USD(A). It further provides that "where 50 percent or more of the duties and responsibilities involve acquisition related functions in any other series, the

individual shall meet the experience qualifications for entry into one of the acquisition series defined therein."

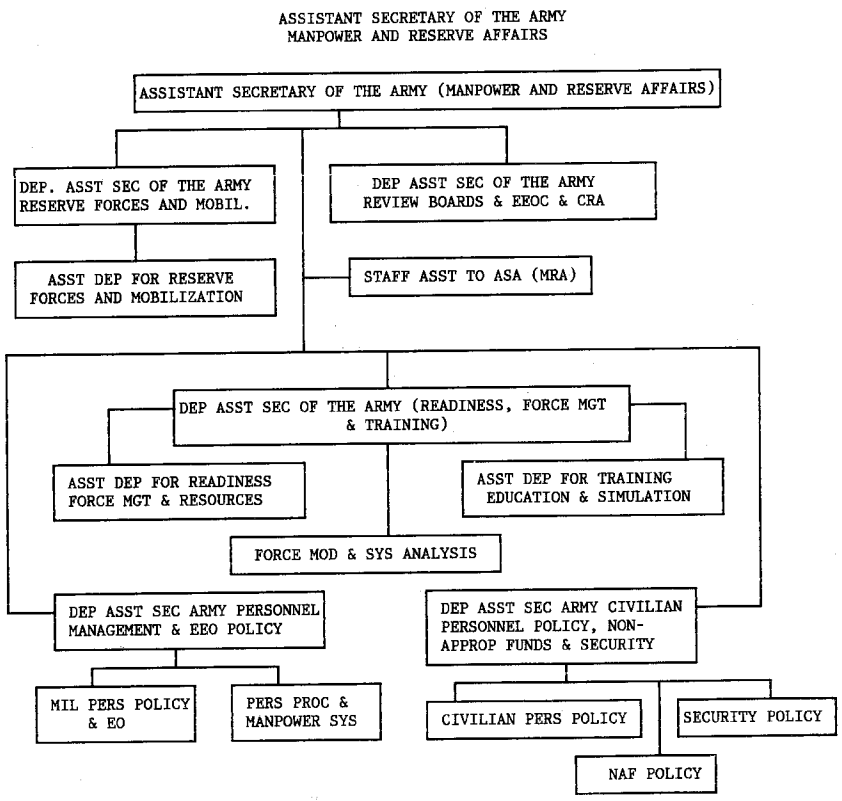
The last accompanying and supporting document is DODI 5000.52 (Draft). This also began the circuitous coordination process in 1987, with a formal draft initiated on August 16, 1988. This instruction addresses the reporting of functional and training-related data on DOD military and civilian acquisition personnel.

ARMY PERSONNEL MANAGEMENT

Army Personnel Management Organizations

Overall responsibility for Army civilian and military personnel resides in the Secretary of the Army, who is assisted by the Assistant Secretary (Manpower and Reserve Affairs). Several Deputy Assistant Secretaries (Exhibit III–2) including one for Civilian Personnel and another for Military Personnel are key players in the Army's development of personnel management policy.

EXHIBIT III–2



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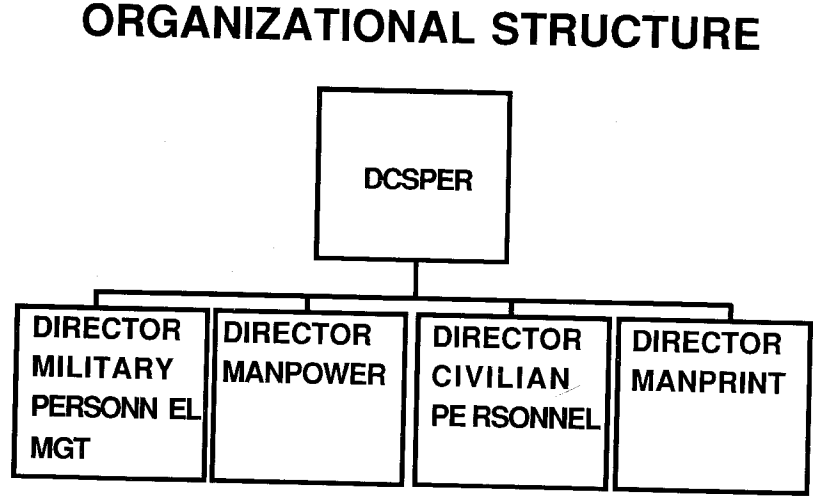
Army Staff/Deputy Chief of Staff for Personnel

The Deputy Chief of Staff for Personnel (DCSPER), who is a member of the Army staff and reports directly to the Army Chief of Staff is responsible for developing policies and programs to assure proper manning of the Total Army. The DCSPER is supported by four Directors, as shown by Exhibit III–3. The Director of Civilian Personnel has cognizance over civilian personnel policies and programs, and the Director of Military Personnel Management has similar responsibilities for military personnel.

EXHIBIT III–3



Director of Civilian Personnel

The Army Deputy Chief of Staff for Personnel (DCSPER) has made the Army Director of Civilian Personnel responsible for managing all Civilian Career Programs. The Director of Civilian Personnel is responsible for policy making, programming, and budgeting plus program operations and evaluations through the civilian personnel component within the Total Army Personnel Command.

Eight Field Operating Agencies report to the DCSPER including the Total Army Personnel Command (PERSCOM). This is a centralized personnel operating agency (Exhibit III–4) that is responsible for the integration, management, and oversight of the total Army personnel function. It recommends and executes military and civilian policies, systems and programs.

Both military and civilian personnel management functions are combined within PERSCOM, but remain in many respects distinct, reflecting the basic differences between military and civilian personnel management. There are four organizations within PERSCOM that are relevant to the Army acquisition workforce. The Civilian Personnel Management Directorate provides guidance and assistance on Army-wide civilian matters. Responsibilities include developing Army policy for training and career management; management of the centralized civilian resources used to support interns and other centrally resourced training and development programs; and, administration of 15 of the Army's 24 civilian career programs. The Officer Personnel Management Directorate manages the accession and appointment of active and reserve officers and the assignment and career development of all active officers except for chaplains and staff judge advocates. The Management Support Division convenes officer selection boards, maintains officer records and manages the officer evaluation and promotion systems. The Deputy Commanding General for Information Management develops and maintains personnel information systems.

Within the Army in the field, both the military and civilian chiefs of personnel work for the commanders at their respective levels. At each headquarters level, such as Major Command, there is a Deputy Chief of Staff for Personnel, who works for the Commanding General. These individuals provide advice and assistance to the commander as part of the commander's staff. Execution of personnel policy occurs at the installation level where the chiefs of military and civilian personnel work for the installation commander.

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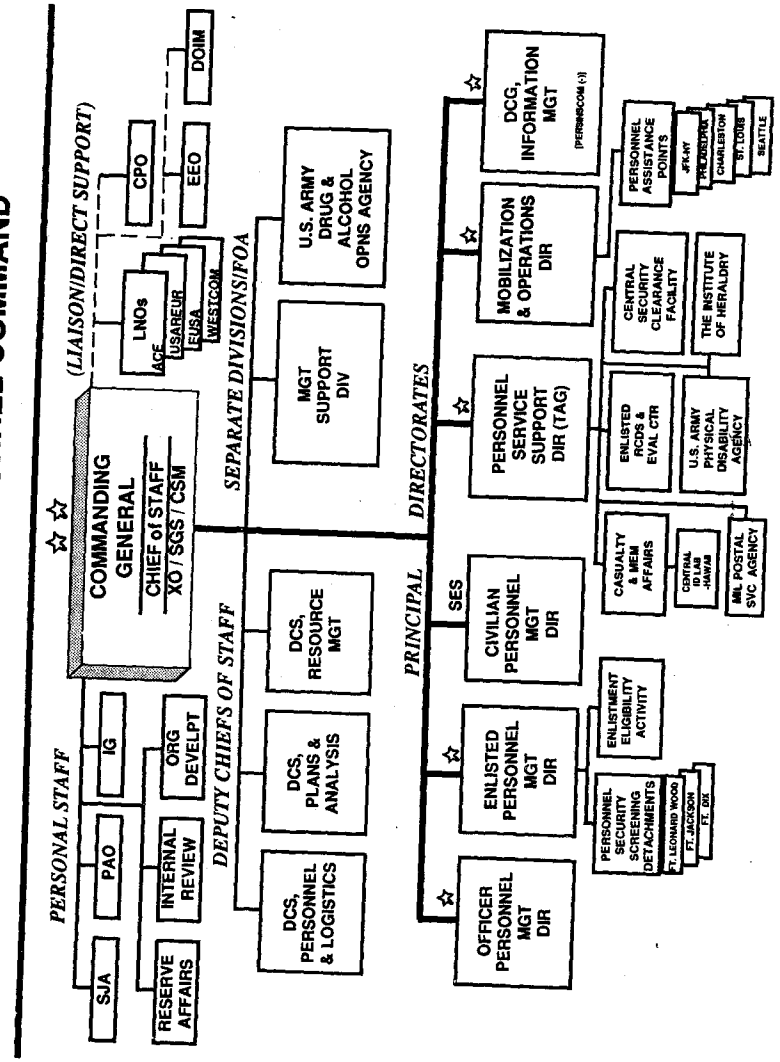
EXHIBIT III–4



Army Personnel Management Policies

Military Personnel Management

In addition to the general attributes characteristic of personnel management of military personnel, the Army Officer Personnel Management System (OPMS) has two distinct, Army-wide concepts: proponency and tracking (either single or dual). These are discussed below within the context of the more traditional concepts of branch and functional area.

Proponency. Under the proponency concept, each career field or discipline has a Proponent responsible for the career development of military officers within a given function or discipline in the Army, such as Program Management or contracting. The Proponent comes from that specialization or career field for which he or she has responsibility. Most of the Army Proponents are associated with the Army Branch schools such as Infantry and Ordnance and are found in the Army Training and Doctrine Command (TRADOC). The rationale is that the professional development of military personnel would remain under military direction. There are also Proponents for Functional Areas (FAs) such as Contracting (FA 97) and Research and Development (FA 51). Lastly, there are Proponents for Career Programs such as the Materiel Acquisition Management (MAM) program, discussed in Chapter VI.

Branch. Officer personnel have traditionally been managed by branch. There is a significant distinction between branches and functional areas. Army officer branches, for example, Infantry, Quartermaster, and Ordnance, historically were formed to develop officers in the professional skills to perform basic Army missions as opposed to particular specialized skills or disciplines more closely associated with civilian occupations in the economy. Thus, the Army branches provide technical and professional training for the officer corps in its three major war-fighting missions of combat, combat support, and combat service support. Branches such as Ordnance were closely aligned with the old technical services. All officers entering the Army are assigned to a branch and normally spend their first eight years on active duty gaining branch proficiency.

Functional Areas. Persons with various skills or from specialized disciplines may be assigned to functional areas. This entails functions required by the position falling outside normal branch duties. Officers from different branches may be assigned to and perform these functions. Officers must be "branch qualified" prior to going into a Functional Area. This means that they will have completed both their Officer Branch Basic and Advanced Courses as well as serving in branch positions—ideally including a company-grade command assignment.

Single and Dual Tracking. The current Army Officer Personnel Management System provides two career patterns for the Army to use in developing and utilizing its officers—single tracking and dual tracking. The relationship between branch, functional area, career programs, and tracking is shown at Exhibit III–5. The single track career pattern permits officers to serve repetitive assignments in a single functional area or branch. Single tracking is permitted in many functional areas but generally will not be permitted until after an officer has served at least one assignment in the functional area. The number of officers who will be permitted to single track in each branch and functional area is determined by the branch and functional area proponents, PERSCOM, and the Army's personnel requirements. Not all branches allow single tracking, but branches that have a shortage of officers allow officers to single track.

Dual tracking allows officers to move back and forth between *functional* specialties and their basic branch. For example, an officer may be assigned as a contracting officer within Army Materiel Command and then subsequently may be re-assigned to an Infantry Division as an infantry officer. The dual track career pattern is similar to the dual-specialty system where many officers serve in two specialties or have two different areas of concentration within the same branch. However, under the dual track career pattern, an officer will serve in only one branch and one functional area. Under the original OPMS, each officer was required to serve in two specialties. Qualification in both specialties was difficult for many officers to attain due to competing demands for professional development and the Army's overall personnel requirements. For many officers, it became increasingly difficult to gain and maintain competency and competitiveness in both specialties, especially in technical areas. The revised OPMS incorporates the concept of primacy which acknowledges that during an officer's early career, branch qualification is the primary development objective. It also recognizes that many dual tracked officers must shift the developmental emphasis, at some point, from the branch to the functional area. The Army normally does not allow officers to begin dual tracking, that is, working in a functional area outside their branch, until they have been branch qualified, normally eight years.

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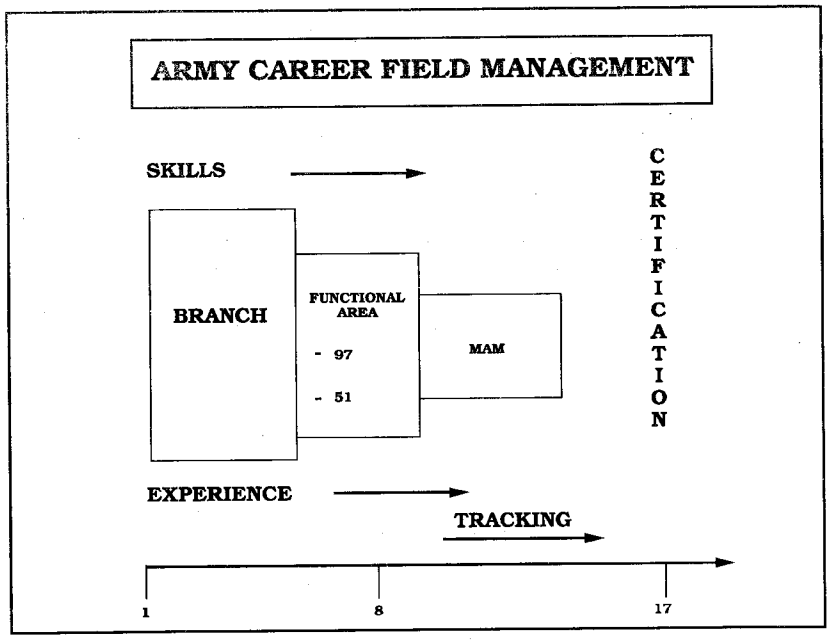
EXHIBIT III-5



Civilian Personnel Management

The Army civilian career management system is a combination of centralized policy-making and decentralized execution, which is typical of Civil Service personnel systems. Policy recommendations by functional managers, such as the Functional Chief, Contracting and Acquisition Career Program, is allowed; however, primary responsibility for policy formulation remains with Civilian Personnel while program execution remains with the commander and his or her supporting civilian personnel organization. Basic policy guidance, contained in Army Regulation 690-950, "Career Management" of September 1988, comprehensively establishes the career program management structure and delineates responsibilities of participants at various management levels. Much of the guidance consists of detailed, "hands-on" procedures.

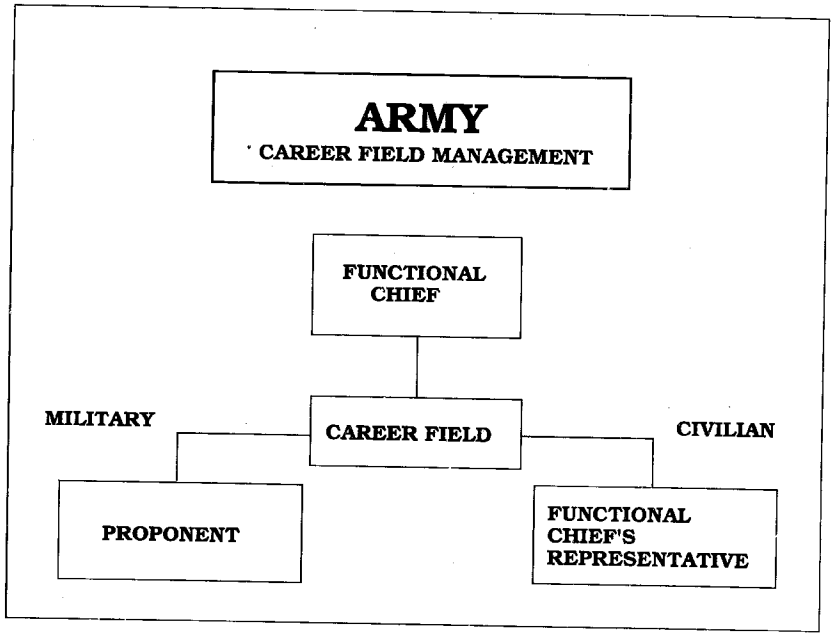
Civilian career programs have been developed for professional and administrative occupational series such as engineering and contracting. Civilian career management is similar to the system used for military officers; but instead of a General Officer proponent, there is normally a civilian Functional Chief's Representative. At the apex of each career program is a Functional Chief who is responsible for career management in his assigned functional area. Functional Chiefs include assistant secretaries, deputy chiefs of staff, and commanders of major Army commands. Each Functional Chief is assisted in carrying out his or her career management responsibilities by a Functional Chief's Representative, usually the highest ranking civilian in the functional area. The Functional Chief's Representative is the civilian equivalent to the military Proponent. For example, there is a Functional Chief's Representative for civilians in the contracting field and a Proponent for military personnel in the same career field.

This system, which is illustrated in Exhibit III-6, provides for oversight by functional specialty at a high organizational level. The responsibility for managing the career program flows down from the Functional Chief's Representative to the major Army command (MACOM) level career program manager and on to the installation level activity career program manager. Both are high-ranking civilians appointed by their respective commanders.

Army civilian career programs are actually executed by the Civilian Personnel Office at the installation working with the activity career program manager. The individual employee's supervisor serves as the career program interface point with employees.

Within this overall framework, there are two distinct and parallel channels of communications. The civilian personnel channel is the line for personnel actions and career program regulatory guidance. The functional line of communication serves as a channel for career program policy and general information on the career field.

EXHIBIT III-6



Army Civilian Training, Education, and Development System (ACTEDS). The Army has institutionalized civilian career paths

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through the Army Civilian Training, Education and Development System (ACTEDS). This provides planned development of the civilian work force through a blending of progressive and sequential work assignments and formal training for career program individuals as they progress from entry level to key positions. This parallels the military system, ensuring an orderly, systematic approach to technical, professional and leadership training and development. ACTEDS Plans for each occupational field, which are developed by Functional Chiefs, are now being implemented Army-wide. New leadership courses have also been developed by the Army and are being offered as part of ACTEDS to strengthen the managerial and leadership capability of Army civilian career program employees at four major stages of their development: intern, specialist, supervisor/manager, and executive. In addition, the Army Management Staff College is being institutionalized as a capstone managerial course designed to train Army civilians and military officers.

Intern Programs. The Army employs three types of civilian intern programs: regular interns, Presidential Management Interns, and Army Mobility, Opportunity and Development (AMOD) Interns. The intake, training program, and graduation vary among these programs. The entry level for regular interns is normally GS-5 or GS-7. The training length may be up to 3 years, but central funding is for 2 years. The Army utilizes the Presidential Management Intern (PMI) Office of Personnel Management program to hire individuals with advanced degrees who enter at the GS-9 level and are promoted to the target grade of GS-12 after two years. The third program is the Army Mobility, Opportunity and Development (AMOD) Intern Program. This is an affirmative action program that selects personnel having high potential but who do not meet all the OPM minimum requirements for entry into the normal intern series and grade levels. Intake may be at GS-4, GS-5, or GS-7 level. Training length may exceed 3 years, but central funding is only for 2 years.

Intern training and development consists of formal school training and on-the-job training. Each career program office functional official develops a Master Intern Training Plan (MITP) which sets forth the required subject matter to be learned through on-the-job training and formal classroom training. Based on MITP requirements, intern supervisors will develop Individual Development Plans (IDP) for each intern. Training practices vary among MACOMs with training execution the responsibility of the local commander, functional management, and civilian personnel. Upon successful completion of intern training, MACOMs have the responsibility for placing individuals in permanent positions. All interns are required to sign a mobility agreement, and this may be exercised as necessary. PERSCOM receives periodic strength and funding reports on intern positions. MACOMs may survey or assess the effectiveness of intern training and development.

The Directorate of Civilian Personnel Headquarters, Department of the Army (HQDA) has assessed the overall program through in-depth studies on several occasions and has found the intern program to be highly effective and essential to fulfilling staffing needs in Army-unique and hard-to-fill occupations. The Army is currently developing the Intern Quality Tracking System which will be used

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to support resourcing requirements and policy decisions for career management.

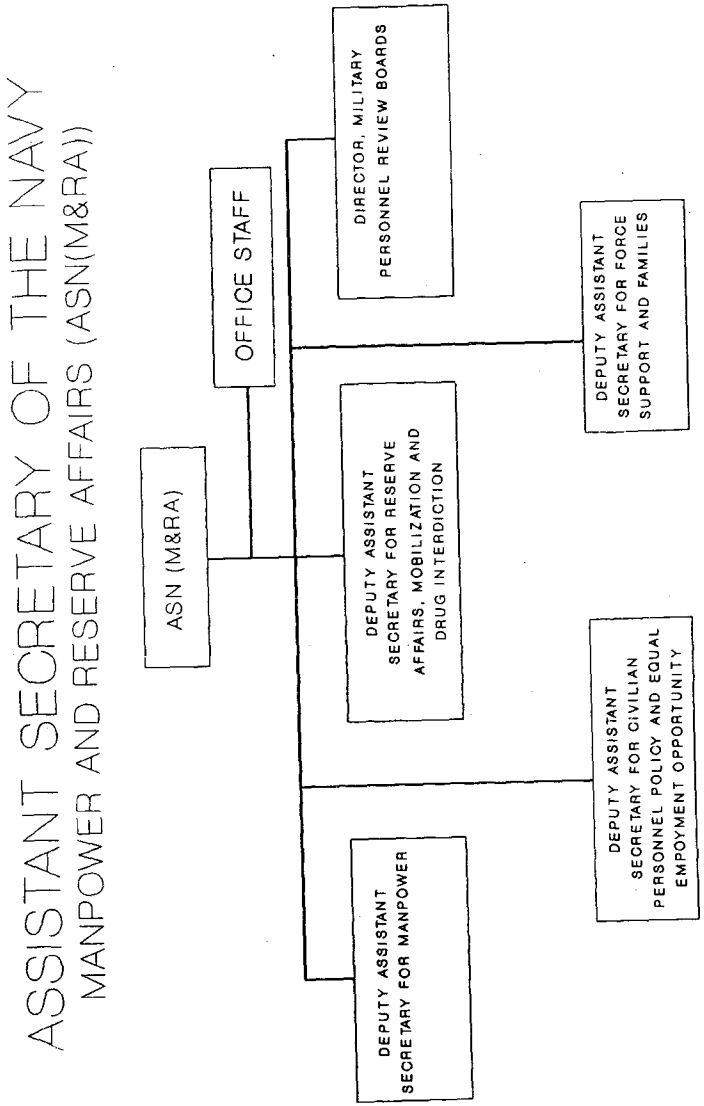
Referral System. Currently, PERSCOM administers a centralized, automated career program candidate referral system for 15 career programs. Most of these career programs are, or soon will be, using the Army Civilian Career Evaluation System (ACCES) which evaluates candidates based on knowledge, skills, and abilities determined from formal job analysis of career program positions. Best qualified candidates are then referred to supervisors for career program vacancies. It is planned that ACCES will be fully integrated in a new Army Civilian Personnel Data System, which is expected to be fully operational, with training sub-systems, in February 1991. There are only six administrators, normally GS-12s, who run the referral system for the 15 career programs. Contracting and Acquisition referrals, formerly administered by the Air Force Civilian Personnel Management Center for the DOD Automated Career Management System, should be a part of the Army ACCES system by September 1990.

NAVY PERSONNEL MANAGEMENT

Navy Personnel Management Organizations

Responsibility for the management and administration of both military and civilian Navy personnel belongs to the Secretary of the Navy. Within the Navy Secretariat, the Assistant Secretary of the Navy (Manpower and Reserve Affairs), organized as shown at Exhibit III-7, has responsibility for overall management of manpower and reserve component affairs of the Navy Department. This includes policy and administration of affairs related to military—active duty and reserve—and civilian personnel, including general guidance and policy on career program matters.

EXHIBIT III-7



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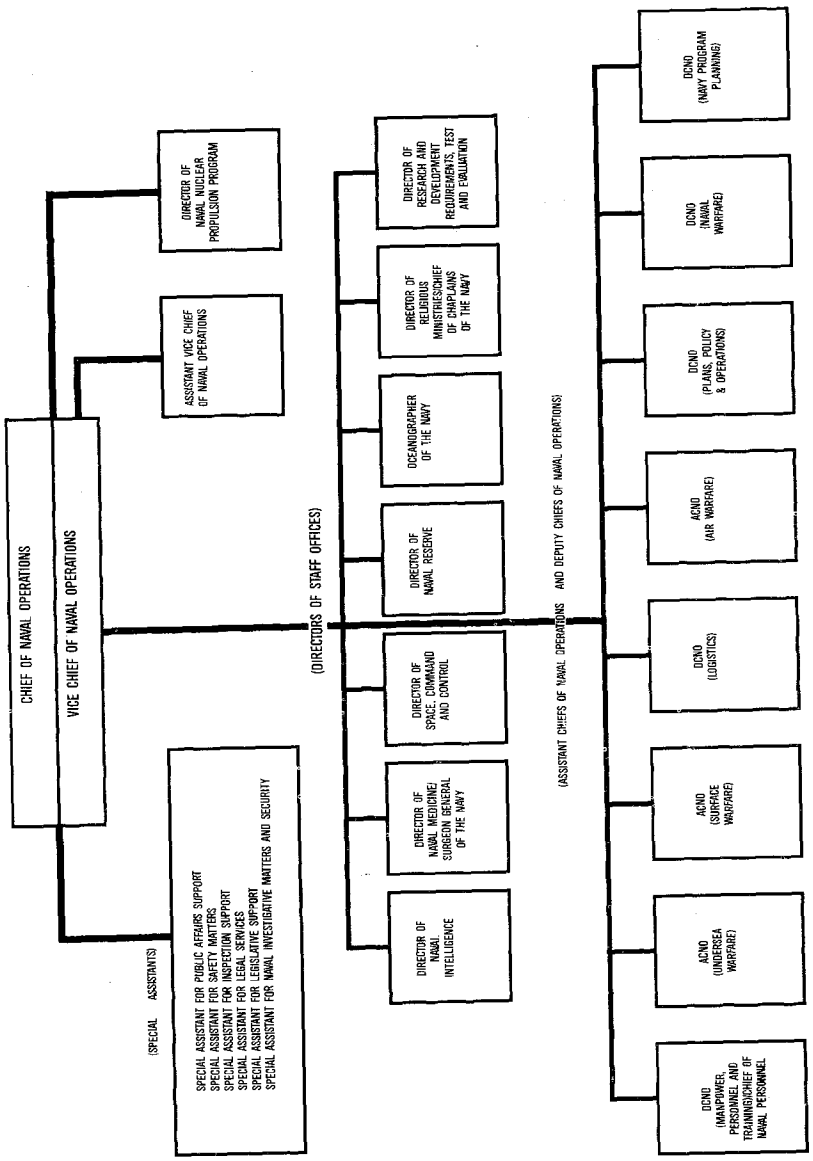
Office of Naval Operations (OPNAV)/Deputy Chief of Naval Operations (Manpower, Personnel and Training)

Within the Office of the Chief of Naval Operations is the Deputy Chief of Naval Operations (Manpower, Personnel, and Training) whose organization is depicted by Exhibit III-8. This Vice-Admiral billet is dual-hatted as the Chief of Naval Personnel. In this capacity, this individual is responsible for the procurement (or accession), distribution, administration and career development of military personnel of the regular and reserve components.

EXHIBIT III-8



Naval Military Personnel Command

Reporting to the Chief of Naval Personnel is the Naval Military Personnel Command (NMPC), which is responsible for the centralized execution of personnel programs for the military. The Naval Military Personnel Command, which is depicted on Exhibit III-9, is organized to provide centralized personnel management of naval personnel, officer and enlisted, as well as active duty and reserve components. It is responsible for the administration and distribution of Navy personnel, including Naval officers with contracting and Program Management career fields to meet the quantitative and qualitative manpower requirements of the Navy. Career program matters, such as the Materiel Professional program, are managed through its Military Personnel Policy Division. Its Total Force Information Systems Management Department is responsible for the development, maintenance, and operation of the Navy Military Personnel Distribution System data base. There are personnel offices to support the Operating Forces, such as the US Naval Forces Europe and the Operational Test & Evaluation Force. In addition, military personnel support is provided at sea through a personnel specialist and, in most cases, a collateral duty personnel officer assigned to ocean-going ships and units.

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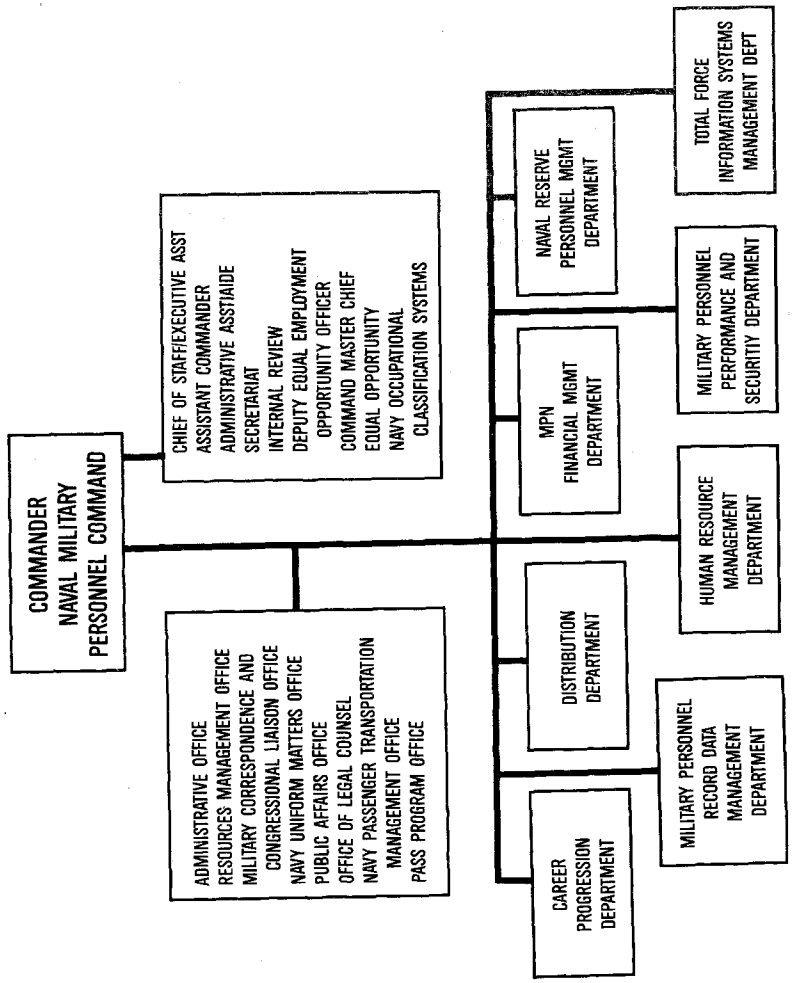
EXHIBIT III-9



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Deputy Assistant Secretary for Civilian Personnel Policy and EEO

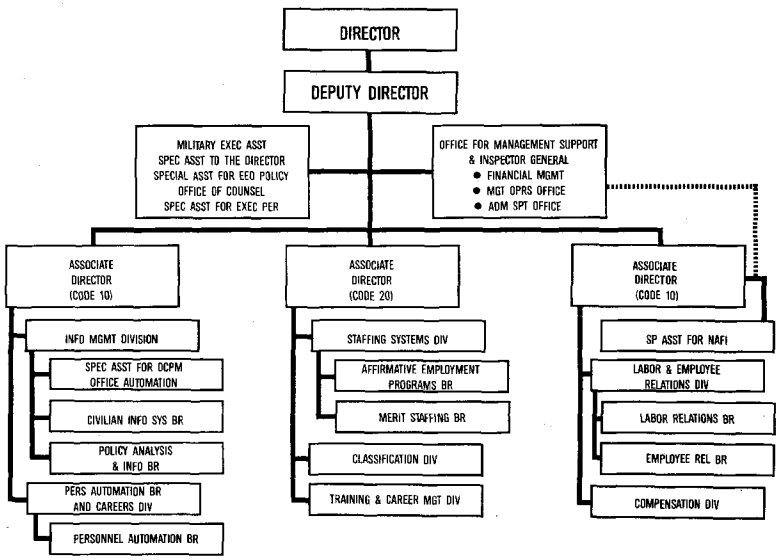
The Civilian Personnel Program in the Department of the Navy is decentralized along command lines but follows policy guidance issued at the Secretariat level, as previously shown on Exhibit III-7. Policy guidance flows from the Assistant Secretary of the Navy (Manpower and Reserve Affairs) through the Deputy Assistant Secretary for Civilian Personnel Policy and Equal Employment Opportunity (CPP/EEO), who is responsible for the development of all civilian personnel policy for the Navy Department—including the Marine Corps.

Office of Civilian Personnel Management

The Office of Civilian Personnel Management (OCPM), depicted by Exhibit III-10, is an operating component of the Assistant Secretary of the Navy (Manpower and Reserve Affairs) and provides staff support for the development of Navy and Marine Corps appropriated and nonappropriated fund civilian personnel and EEO policies and programs, including general guidance on career management matters. It also executes delegated authority for civilian personnel and EEO matters; issues implementing directives; and, evaluates the programs based on Secretary of the Navy established policies. It carries out its responsibilities through five OCPM regional offices within CONUS, plus one each in London in Hawaii. These offices assure regulatory compliance by the operating Civilian Personnel Offices, provide advice and assistance to functional management and adjudicate EEO and labor-management complaints.

EXHIBIT III-10

OFFICE OF CIVILIAN PERSONNEL MANAGEMENT



Naval Civilian Personnel Center

The Naval Civilian Personnel Center, which is depicted in Exhibit III-11, reports to the Chief of Naval Personnel and advises this individual on civilian personnel matters. It provides civilian personnel guidance and services to subordinate commands reporting to the Chief of Naval Operations, such as Naval Sea Systems Command. It is responsible for centralized civilian personnel matters such as civilian mobilization and the Naval Civilian Personnel Data System (NCPDS).

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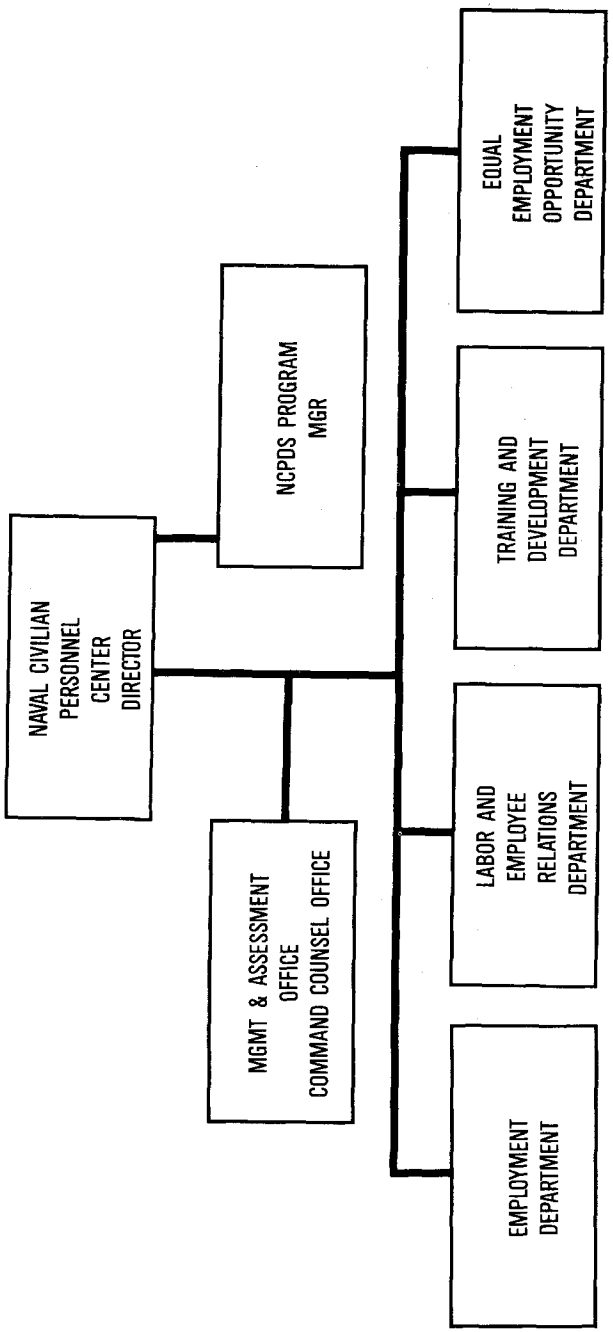
EXHIBIT III-11



Command Directors, Civilian Personnel Programs

Each Echelon 1 and Echelon 2 command in the Navy has a Director, Civilian Personnel Programs. An Echelon 1 command, which reports directly to the Secretary of the Navy, include: the Chief of Naval Operations (CNO); Assistant for Administration, Under Secretary of the Navy; Office of the Chief of Naval Research (OCNR); and, the Commandant of the Marine Corps. Echelon 2 commands report to the Chief of Naval Operations; these include the SYSCOMS, such as Naval Sea Systems Command. In either case, the Director, Civilian Personnel Programs reports to the commander for advice, guidance and the development/implementation of command-wide civilian personnel policy.

Civilian Personnel Offices

Navy and Marine Corps shore Civilian Personnel Offices (CPOs) are found at the headquarters and field activity level to provide on-site operating services in such functions as recruitment, retention, benefits, and training of the civilian workforce. Civilian personnel policies are implemented at the activity by the servicing CPO, which usually reports to the local activity commander. However, in some cases, the largest activity in the area will provide service to those units too small to maintain their own CPO. For example, the Director of the Consolidated Civilian Personnel Office (CCPO), under Naval Sea Systems Command, is an operating CPO responsible for providing personnel support to the SYSCOMS in Washington including implementation of career programs. Naval operating forces which have civilian personnel assigned also receive similar service from a shore-based CPO, normally located at the home base or at an overseas location. All of the over 100 operating CPOs are capable of providing administrative support in the implementation of career programs.

Navy Personnel Management Policies

Military Personnel Management

The Navy has organized and manages its officer corps differently from, and yet analogous, to that of the other Services. This uniqueness is the result of the Navy's mission and requirement for sea duty.

Line Versus Staff Corps. The Navy officer corps has been traditionally organized into two categories: line officers (restricted and unrestricted) and staff corps officers. Officers of the line are engaged in operating the Navy, its surface and undersea weapon systems, aircraft and operational units—surface, undersea and air arms. This categorization is similar to the Air Force's distinction between rated officers and non-rated officers.

The categorization of Naval officers into three types is analogous to the Army's three part categorization by mission into Combat, Combat Support, and Combat Service Support functions.

Navy	Army	Air Force
Unrestricted line	Combat	Rated pilots/navigators.
Restricted line	Combat support	Rated pilots/navigators.

Navy	Army	Air Force
Staff corps	Combat service support	Non-Rated Support.

The Navy employs two subcategories of line officers: Unrestricted Line Officers (URL) and Restricted Line Officers (RL). URL officers are associated with the three fighting arms of the Navy: surface warfare, undersea warfare, and air warfare. There are five categories of URL officers: surface, pilot, naval flight officer, nuclear submariner, and general URL. Only officers in these lines may command their respective units. For example, 10 U.S.C. 5942 stipulates that an officer must be a line officer designated as a naval aviator or naval flight officer or be otherwise qualified to be eligible to command an aircraft carrier, aircraft tender, naval aviation unit organized for flight tactical purposes, a naval air station or aviation school. Similarly, only surface warfare qualified officers of the line may command surface ships such as battleships. The same pertains for the submarine service. Restricted Line officers are involved in directly supporting the operations of the Navy and are not assigned to war-fighting billets. Examples are Aviation Maintenance Duty Officers and Aeronautical Engineering Duty Officers.

Staff Corps officers are developed to provide support to the Navy in specialized skill categories. There are four Staff Corps of the Navy established by law (10 U.S.C. 5155): Medical Corps, Dental Corps, Judge Advocate General Corps, and Chaplain Corps. The Secretary of the Navy, authorized by law to establish other Staff Corps, has designated four additional Staff Corps: Medical Service Corps, Nurse Corps, Civil Engineering Corps, and Supply Corps. The Supply Corps and Civil Engineering Corps perform acquisition and contracting functions. Staff Corps officers are restricted in the types of billets they may occupy. Title 10 U.S.C. Section 5945 provides that officers in staff corps may only command activities appropriate to their Corps. For example, the Commander of NAVSUP must be a Supply Corps officer.

Navy personnel management is complicated by the necessity for establishing shore billets for officers returning from sea duty. The Navy has established a sufficient number of these billets ashore to be filled by personnel who are qualified to augment fleet units in response to national taskings. In addition, shore billets are allocated to the URL community for professional development of its personnel. Thus, the career development of URL officers, such as naval aviators, will place a heavy emphasis on sea duty and operational assignments. Assignments external to operations and sea duty are considered as career broadening. The Navy has to specially manage the career development and assignments of Naval aviators. Aviation officer requirements include billets in squadrons, on ships, on embarked aviation staffs, in Research, Development, Test and Evaluation activities and in other aviation units. This may be illustrated by the typical career pattern of naval aviators which is flying intensive during the first 14 years of service. During this time, they may be expected to have at least three sea tours and shore assignments would entail heavy flying requirements in undergraduate pilot and flying and in fleet readiness squadrons. Mid-

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grade career development is split between aviation and career broadening billets. According to the *DOD Aviator Retention Study*, Vol I, (November 28, 1988), "few naval aviators have more than one non-aviation assignment in their first 18 years of service." The Navy assigns senior aviators (captains) to billets in which they may utilize their experience including command of aviation units and staff assignments ashore. There are also non-aviator billets which are allocated to the aviation, surface, submarine, and general URL communities for professional development.

Civilian Personnel Management

The Navy has followed a traditional, decentralized approach to personnel management of its civilian employees with career program development policies generally delegated to the SYSCOM headquarters. Primary responsibility for program execution resides with line or functional managers who approve plans and policy with the servicing civilian personnel office providing support and administration.

AIR FORCE PERSONNEL MANAGEMENT

Air Force Personnel Management Organization

Responsibility for Air Force civilian and military personnel inheres in the Secretary of the Air Force, assisted by the Assistant Secretary for Manpower and Reserve Affairs, who is responsible for the overall supervision of manpower, personnel, and reserve component affairs. Three major areas of responsibility under this Assistant Secretary are: (1) manpower and organization; (2) military and civilian personnel including their procurement (accession), assignment, training, promotion, career development, compensation and utilization; and, (3) manpower management programs to include manpower mix policies and military essentiality of positions. The structure of the Office of the Assistant Secretary for Manpower and Reserve Affairs is depicted by Exhibit III-12.

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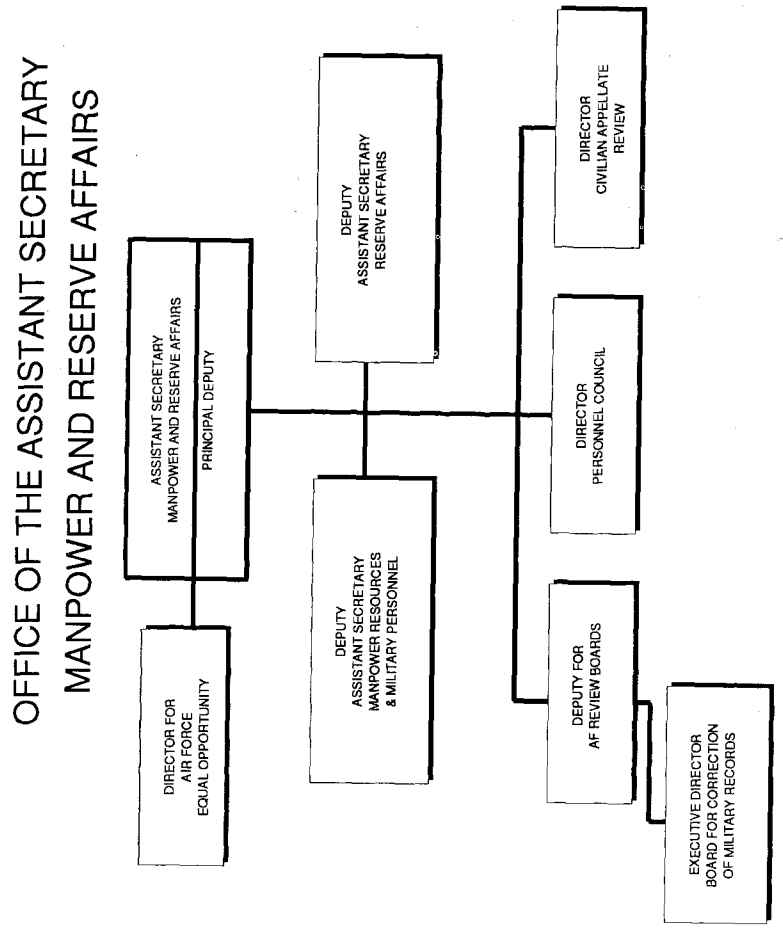
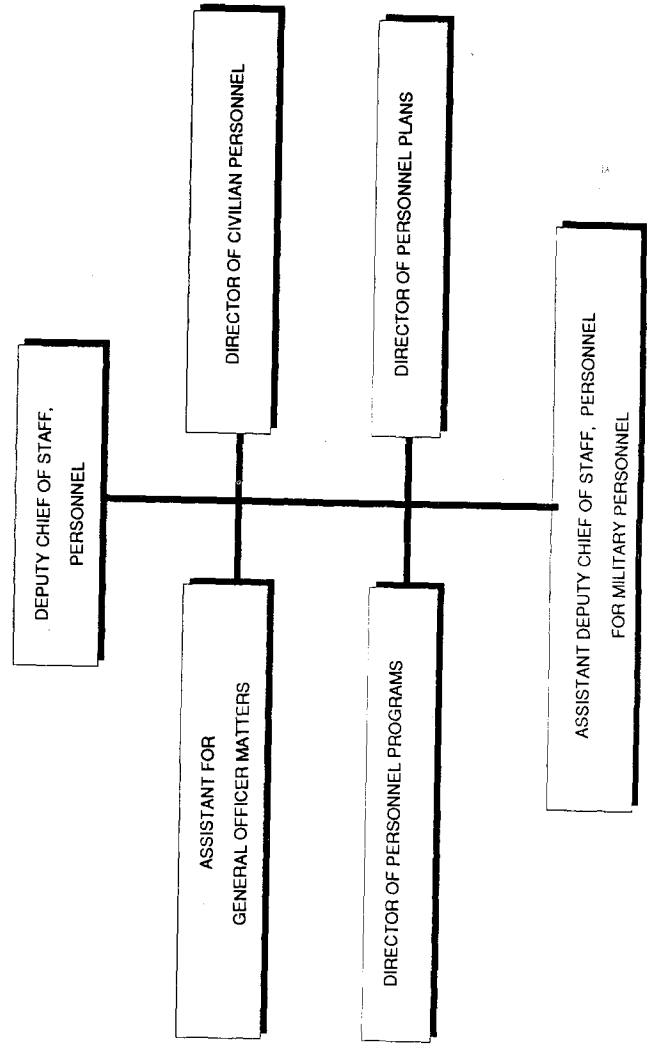
EXHIBIT III-12



Air Staff Organization/Deputy Chief of Staff (Personnel)

Within the Air Staff, the Deputy Chief of Staff, Personnel, whose organization is depicted by Exhibit III–13, plans and supervises the policies and procedures for Air Force civilian and military personnel activities. Four organizations under the Deputy Chief of Staff (Personnel) are of particular interest within the context of this report. First, General Officer Matters plans and effects the management of the General Officer force and coordinates their assignments. This organization is critical because it controls the assignment and tenure of all General Officers, including Program Directors. Second, the Director of Personnel Programs is responsible, among other things, for: all education and training activities (including budgeting) within the Air Force; determining required force levels; establishing budget programs to support these levels; providing guidance to the Air Force Institute of Technology and other Air Force schools responsible for acquisition training; monitoring specialty changes in the Air Force Classification System; and, for determining the impact of converting military positions to civilian positions.



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Director of Civilian Personnel

The two most important offices in managing the workforce are the Director of Civilian Personnel and the Assistant Deputy Chief of Staff for Military Personnel. The Director of Civilian Personnel directs the formulation of policy for comprehensive civilian personnel program management. To carry this out, the Directorate is organized as shown in Exhibit III-14. The Director—who is "dual hatted"—also serves as the Director of the Air Force Civilian Personnel Management Center and is a member of all Air Force Career Program Policy Councils.

The Assistant Deputy Chief of Staff for Military Personnel wears a "second hat" as the Commander of the Air Force Military Personnel Center. This individual supervises and directs the overall management of military personnel (all enlisted and officers in the grade of colonel and below), including their distribution. The Military Personnel Center (Exhibit III-15) operates the military personnel system and is the single manager for the personnel data system: active duty, civilian, Air Force Reserve and National Guard.

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EXHIBIT III-14

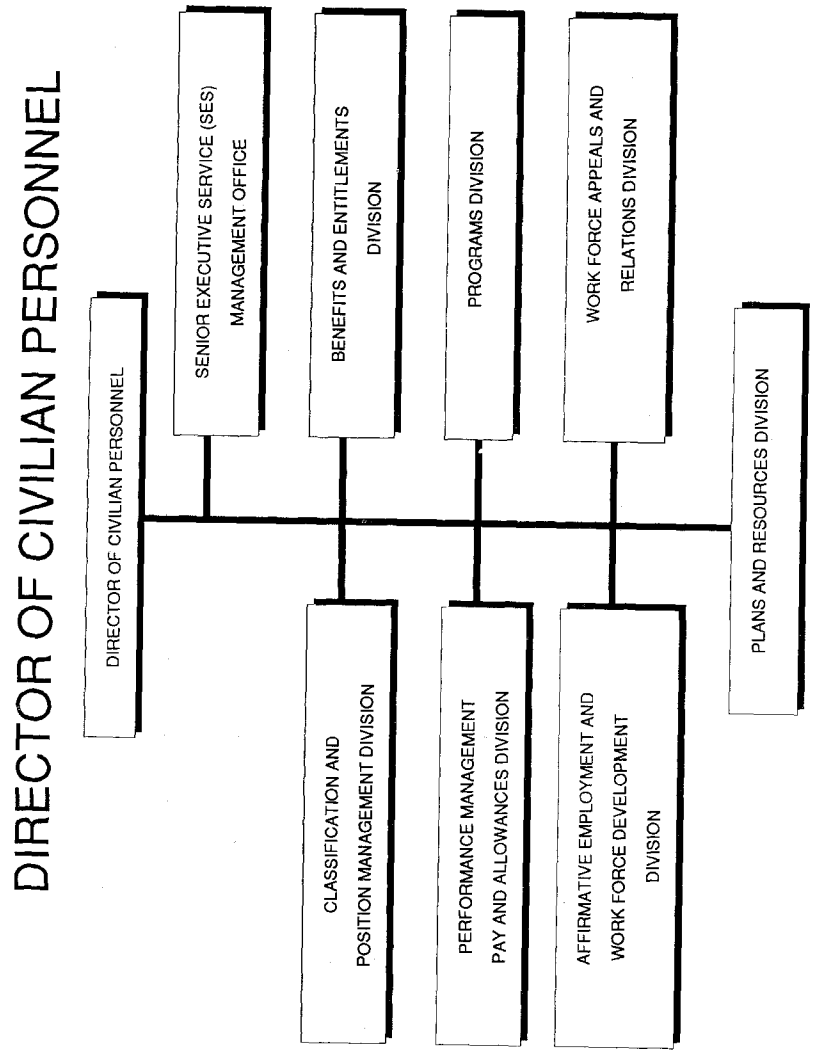
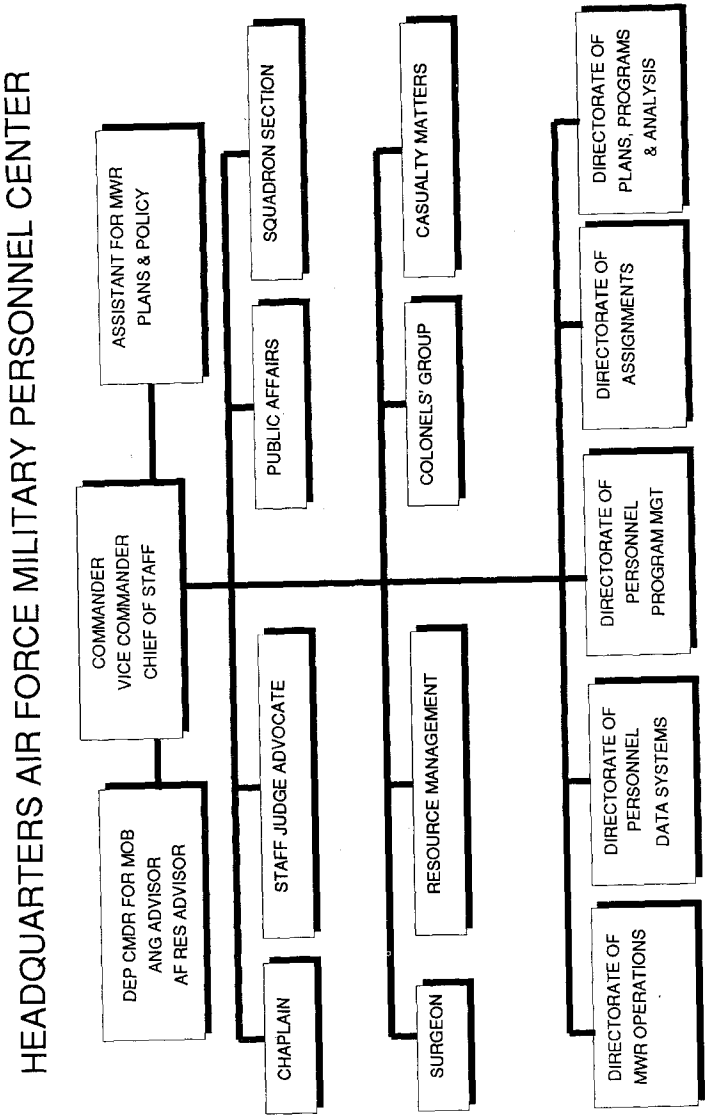


EXHIBIT III-15



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Deputy Chief of Staff (Programs and Resources)

The Deputy Chief of Staff, Programs and Resources is responsible for the sizing and civilian-military mix of the Air Force. As such, this individual develops and administers policy for the allocation of active military and civilian manpower resources throughout the Air Force.

Direct Reporting Units

The Air Force Civilian Personnel Management Center (AFCPMC), a Direct Reporting Unit to the Director of Civilian Personnel, is responsible for centralized Air Force career management. To accomplish its mission, there are two separate Divisions. The Integrated Systems Management Division is responsible for the operation and enhancements to the Personnel Data System-Civilian (PDS-C). The Career Management Division is responsible for career program management and recruiting of Air Force interns.

Each civilian career program is organized as a PALACE Team with a chief from that functional area, such as Contracting and Manufacturing. Currently, there are ten PALACE Teams for 19 career programs as some of the smaller career programs are consolidated into one Team, such as, the Team for Manpower and Personnel. Within broad parameters, each PALACE Team and career program is tailored to meet the needs of that functional career field and its senior leadership. Each career program generally has the following characteristics: centralized operation in terms of recruiting, training and funding for interns, and centralized referral for senior positions. Thus, in terms of career program management and the PALACE Team structure and operations, the Air Force system is centralized and vertically integrated with close coordination between functional management and civilian personnel.

The Air Force Military Personnel Center (AFMPC) is responsible for the centralized management of the military force (both officers and enlisted). It also employs a PALACE Team concept for the management of assignments and is responsible for the following functions: officer and enlisted evaluation systems; the procurement of personnel; the promotion system; retention, retirement and separation; and, operation of the Air Force Personnel Data System.

The PALACE Teams consist of individuals from a career field, such as contracting, who are assigned to AFMPC for a normal duty tour. The AFMPC (Contracting) PALACE Team has contracting (AFSC 65XX) officers and enlisted personnel assigned. Their primary purpose is to manage the contracting military workforce in terms of accessions and assignments. While independent of the senior military contracting leadership, they have established lines of communication and consult with the Air Force contracting leadership.

Outside of AFMPC and AFCPMC, the military and civilian chiefs of personnel work for the commanders at each organizational level. Each major field activity has a staff personnel function, military and civilian, which works for the commander. At the installation or base level, there is a military Consolidated Base Personnel Office and a civilian Central Civilian Personnel Office. The execution of personnel policy is shared between the traditional base and

field command personnel organizations and the centrally managed functions at AFMPC and AFCPMC.

Air Force Personnel Management Policies

Military Personnel Management

Military acquisition personnel management is built on, and is an extension of, the basic Air Force career development concepts and personnel management principles embodied in AFR 36-1, "Officer Classification," March 15, 1985 and AFR 36-23, "Officer Professional Development," January 1, 1989. AFR 36-1 describes the duties, responsibilities, and qualifications required of the various Air Force Specialty Codes (AFSCs) assigned to Air Force officers, including those in the Program Management and contracting areas. AFR 36-23 outlines the Air Force Officer Professional Development Program and provides career path information for use by officers in each of the applicable Air Force Specialty Codes in planning their Air Force career progression and includes specific chapters for the different utilization fields within the Air Force.

Accordingly, there is a separate and distinct career path for Air Force Officers in various functions. For example, there is a specific career path for Acquisition Contracting/Manufacturing Staff Officers (65XX), as well the three primary sources of military Program Managers: Scientific (26XX); Acquisition Program Management (27XX); and Development Engineering (28XX) utilization fields.

The most important career development activity for junior officers (second lieutenant through junior major) is work that enhances career specific professional/technical competencies. Accordingly, a limited number of captains would serve in lower staff jobs while a significant number of majors would serve in such jobs. Lieutenant colonels would receive a broader range of experience with emphasis on demanding staff jobs. Professional military education (PME) and academic education are important and should parallel and support the requirements of the job. There are three levels of Air Force PME in ascending order: Squadron Officer School (SOS), Air Command and Staff College (or another Intermediate Service School) and Air War College (or another Senior Service School).

The Air Force military personnel management system is a mixture of centralized and decentralized functions. Force-level planning or modelling, Professional Military Education, assignments and promotions are centralized. Professional development is left to the individual officer in conjunction with the local commander or supervisor and the servicing Consolidated Base Personnel Office (CBPO).

Rated Force Management. Beyond the traditional characteristics of a military personnel management system, the Air Force manages its military personnel pursuant to its unique "fly and fight" mission. This calls for special handling of its rated force, composed mainly of aviators and navigators. Rated officer management, however, applies only to officers in the grades of lieutenant through lieutenant colonel. All colonels are considered to be a separate management asset and are thus treated as a separate group. Thus, there is a dichotomy in the management of rated vis-a-vis non-

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rated officers: non-rated officers cannot be assigned to operational positions whereas rated officers can be assigned to support positions.

The Air Force rated force requirements are determined by the wartime missions of the Air Force. In determining the total numbers of rated officers required, consideration is given to line cockpit aviator positions required based on crew ratios for primary authorized aircraft. There is also a staff requirement for the rated positions necessary to provide management and operational staffs at all levels of command. While military aviation careers are generally flying intensive, they also include non-flying assignments. The Air Force uses the management tool of rated supplements to place rated officers in non-flying assignments.

Rated Supplements. The Air Force identifies certain non-aviation positions, designated as rated supplements, for rated officers. The size of the rated supplement is established by a board of General Officers—the Rated Supplement Requirements Board (RSRB)—which examines each functional specialty in the Air Force and determines an appropriate level of rated officers for each area. A number of acquisition positions are designated as rated supplement positions.

The Air Force believes the use of rated supplements provide two benefits, according to the *DOD Aviator Retention Study,* Volume I (November 28, 1988).

> First, the operation of a functional area is enhanced by the direct infusion of rated skills and experience. . . . At the same time, there are benefits for the officer filling the supplement position. The individual gains knowledge in other areas of the Air Force, outside of rated operations. This adds to officer professional development and supplements professional military education.

In January 1989 an Air Force General Officer level authorizations conference decided to redefine the requirement for rated officers in non-aviation duties. Rather than define a level of rated officers to be assigned in each functional specialty, a process was initiated of converting previously nonrated positions to rated positions when the specific duty calls for rated expertise. When this conversion process is complete, the remaining rated supplement authorizations will be phased-out. When the conversion and phase-out are complete the Air Force will have a definitive position-by-position statement of requirements for rated skills. The Air Force may still use rated officers in acquisition, technical, and scientific fields when a rated officer's skills can be justified as necessary to the organization's mission.

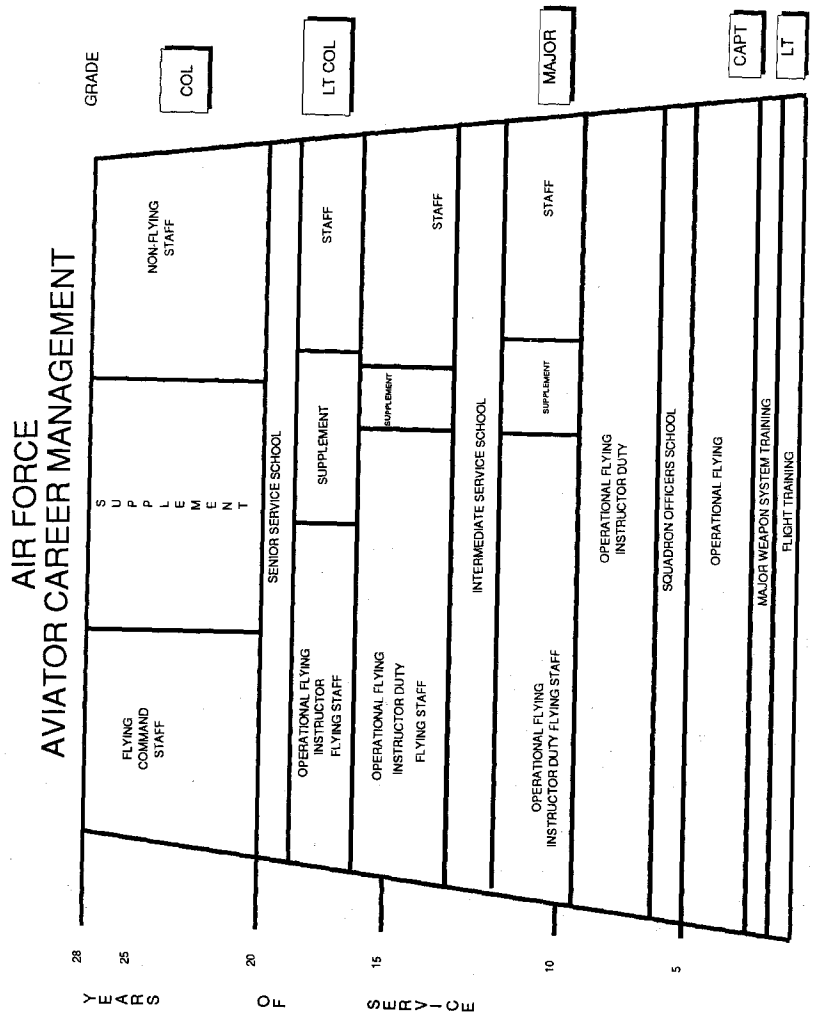
The Air Force pilots' professional development pattern as shown in Exhibit III-16, is important since the application of the rated supplement affects the management of the contracting and Program Management career fields in the Air Force. This is especially so when coupled with the concept of "flying gates."

Flying Gates. The Aviation Career Incentive Act of 1974 (P.L. 93-294) established aviation career incentive pay (ACIP) to attract and retain officers for aviation careers. To continue receiving ACIP, or "flight pay," officers must meet specified ACIP gate requirements

at 12 and 18 years of aviation service to maintain this entitlement. An officer must have at least 6 years of operational flying duty at the 12 year gate to be entitled to continuous ACIP until the 18th year of service. At the 18 year gate, the requirement is 9 years of operational flying to be entitled through the 22nd year of service. They need 11 years of operational flying to be entitled through the 25th year of service. Failure to meet these gates results in termination of continuous payments.

This is relevant to both Program Management and contracting as the Air Force has decided to use rated officers as Program Managers for major aircraft weapon systems acquisitions. In addition, most senior General Officers in Air Force Systems Command, such as the Program Executive Officers, are rated.

EXHIBIT III-16



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Generalists. Another policy which affects management of the Air Force military workforce is the concept that in senior positions the management and leadership skills of the officer are most critical. The Air Force developed a system of generalist Air Force Specialty Codes to identify this requirement. For example, a position requiring the skills of a rated officer, but not the specific skills associated with a particular weapon system such as the F-16 pilot would fall into the generalist category. The requirements for some test pilots/navigators and the majority of the research and development staff falls within the General Operations Staff (GOS) category. This is most pronounced at the senior grades. About 80 per cent of the requirements for rated colonels is GOS. Also, all General Officers hold the same AFSC of 0002, regardless of their position.

Civilian Personnel Management

Air Force civilian personnel management is a combination of centralized policy-making and decentralized execution of the traditional personnel functions. Superimposed on the traditional civilian personnel structure is a centralized career program structure in which senior functional and civilian personnel operate as an integrated team. Basic policy guidance is contained in Air Force Regulation 40-110, "Civilian Career Program Management," October 3, 1988. It establishes Air Force Career Program policies, goals, responsibilities, and management structures. It also sets forth the basic elements and procedures characteristic of Air Force career programs. Individual career programs, through their respective Policy Councils, issue supplementary guidance, via specific volumes to AFR 40-110, that is applicable to their program.

At the apex of each career program is a Policy Council, composed of both senior functional managers (civilian and military) plus the Director of Civilian Personnel. Most career programs are chaired by a Senior Executive Service civilian, such as the Deputy Comptroller of the Air Force or a Deputy Assistant Secretary. Some, however, are chaired by a senior military officer.

The Air Force established its Procurement Career Management Board in response to the contracting career management program requirements established by DOD Instruction 5100.58, "Defense Procurement Career Management Board", discussed above. This was done prior to the establishment of the Air Force Civilian Career Program structure: the organization and relationship of this Air Force Board to the Defense Procurement Career Management Board is depicted at Exhibit III-17.

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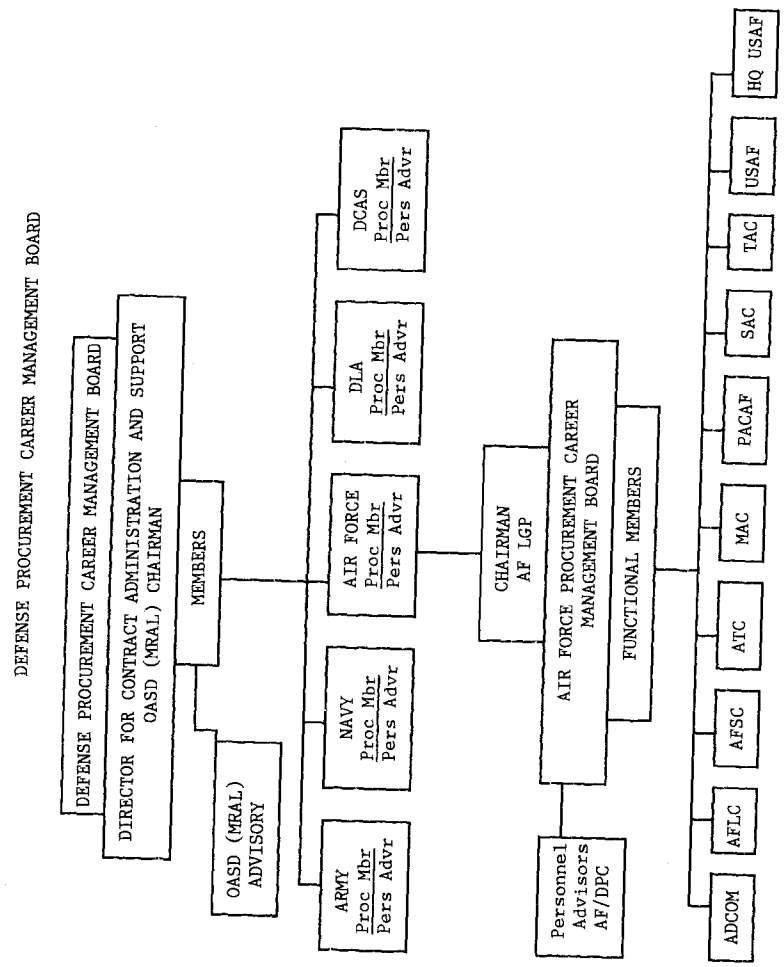
EXHIBIT III-17



For career program purposes the Air Force classifies its workforce into three categories: career general force, career executive force, and career broadening positions. Career executive force applies to all positions centrally-managed, i.e., filled using the central referral system. Career broadening positions are positions reserved for limited tours in which an individual will acquire new knowledge, skills, and abilities not available through normal career progression. The career general force applies to all other positions, GS-5 and above in the workforce.

The Air Force has established a centrally-managed and funded intern program known as PALACE ACQUIRE, which provides for centralized recruiting of interns on college campuses for the various career programs. Some managerial and technical training is centrally managed. In addition, executive and long-term full-time training is centrally managed through the career program concept. Referrals to mid-level and above positions within the career program structure is centrally managed by senior functional management with the support of the Director of Civilian Personnel and the Air Force Civilian Personnel Management Center.

Thus, the Air Force has established a structure and management philosophy that provide for career development in a centralized mode, with the heavy involvement and influence of the senior leadership in that functional area. The traditional, routine personnel management functions remain within the purview of the local civilian personnel community and commander.

DLA PERSONNEL MANAGEMENT

The Defense Logistics Agency has responsibility for the career management and development of its civilian personnel, including civilians employed in the contracting function. Military staffing and personnel management is provided by the Army, Navy, Air Force, and Marine Corps—hence providing for DLA's "purple suit" character. Military officer career development remains with the respective Services.

Personnel management responsibilities are shared between the DLA Staff Director for Civilian Personnel, who provides overall staff guidance and establishes DLA-wide civilian career programs, and the appropriate Principal Staff Element (PSE). The Staff Director issues regulations and manuals as required, coordinates program development, evaluates the effectiveness of DLA career programs, and assists in evaluating DOD-wide civilian career programs. The Staff Director is supposed to initiate professional programs to meet the specialized needs of functional managers.

The Principal Staff Elements (PSE) are the heads of various headquarters Directorates, such as contracting or quality assurance. They provide, in a generic sense, the leadership in developing civilian career programs and serve as the component functional chief for DOD-wide civilian career programs. The PSE is responsible for tailoring the career program to the needs of its functional community by establishing specific provisions, such as mandatory training, providing technical advice and guidance to commanders of the Primary Level Field Activities (the supply centers, depots, service centers and DCASRs), and monitoring/evaluating program

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effectiveness to ensure that shortfalls are addressed and resolved. Each PSE also sits on the DLA Headquarters Advisory Council, which advises the DLA Director on career program and personnel matters.

In addition to the Headquarters staff elements, the Commanders of DLA Primary Level Field Activities are responsible for collaboration among the functional directorates and civilian personnel offices in implementing and administering career programs. They also assure that current Office of Personnel Management (OPM), DOD, and DLA qualification requirements, appraisal and counselling programs, and training/development programs are implemented and that there is an adequate annual intake of interns who will be candidates for key positions in the future. Managers and supervisors in the Primary Level Field Activities are responsible for the career development of individuals within their organization.

PERSONNEL DATA SYSTEMS

An effective automatic data processing system (ADPS) and attendant management information system (MIS) are critical to managing the acquisition workforce. This is especially true in the case of the Department of Defense where a large workforce serves in many different functional areas requiring varying qualifications, education and training, and is distributed in many different locations around the world. This section further discusses this importance, describes attributes of an effective system and discusses the status of current and planned DOD systems designed for this purpose.

Importance of Effective Data and MIS Systems in Personnel Management

The necessity for effective ADP and management information systems was highlighted in the previously discussed Task Group 6 report:

> The agency Procurement Executive needs a system to collect and maintain information on the agency procurement work force which will provide the basis for management decisions related to the Procurement Career Management System. . . . Knowledge of the shortfalls in the agency procurement work force and the use of centralized resources to overcome those shortfalls requires an agency-wide procurement personnel information system. . . . For a large agency, the procurement personnel information system could involve extensive computer capability and dedicated people.

An effective ADP system is necessary for the day-to-day operation of a personnel management system. ADPS may be used to support various personnel management functions such as the assignment and promotion process, position management, and the training and education of the workforce as well as other personnel functions. An ADPS is essential for military personnel management as so many of the personnel management responsibilities, such as assignments and promotions, are centralized in a military

personnel center. Civilian personnel management may rely on manual systems so long as the civilian personnel function remains decentralized. However, career management of the workforce in large agencies such as the Department of Defense requires an ADPS. The ADPS also serves as a basis for required reports to organizations such as the Defense Manpower Data Center and the Office of Personnel Management.

An effective MIS provides decisionmakers another tool in terms of planning, coordinating, and controlling the workforce. Thus, the MIS database must contain the types of data needed, and this data must be readily accessible. There is a nexus to the operational ADPS, because the data input in the ADPS may be refined and used as management information in the MIS. Since the relationship between inputs and outputs is reciprocal: outputs define or drive data requirements; inputs control the nature and accuracy of information provided as outputs, defining the output and identifying the input is critical. This is crucial as the most sophisticated technology cannot extract precious ore from an empty mine shaft.

Lack of Common Criteria and Standardization in Current Personnel Systems

Limitations in personnel data systems have been identified as a key factor inhibiting the effective management of the acquisition workforce. For example, a 1987 GAO report on the government's procurement workforce (*Procurement Personnel: Information on the Procurement Workforce*, B-222782, November 5, 1987) noted that the failure to use common criteria in defining who is in the procurement workforce adversely impacted the government's ability to determine the condition of the procurement workforce. The report noted that the Federal Acquisition Institute (FAI) information systems did not identify all those personnel and excluded employees who were not in the procurement workforce. Additionally, GAO found that the Federal Acquisition Personnel Information System (FAPIS), which was developed by FAI to report on the procurement workforce, did not include essential information on personnel such as their training and experience levels. They found that although FAPIS covers 28 different occupational series and contains data on number of employees, turnover rates, average age and average grade, and educational levels, the system has many limitations. For example, it cannot identify contracting officers. Since some agencies have contracting officers in other than the core series (GS-1102), the FAPIS can "neither precisely nor comprehensively identify the procurement workforce."

Lack of standardized requirements for reporting data on DOD acquisition personnel has also been identified as a problem. Recognizing this deficiency, the Defense Manpower Data Center (DMDC) which, along with the Assistant Secretary of Defense (FM&P), has responsibility for management reporting of DOD personnel data, has sought to establish standard requirements for reporting data on contracting, Program Management, and other acquisition personnel. This would include identification of contracting officers and Program Managers of both major and non-major programs. However, the Services have not yet agreed to develop the data system structure.

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Additionally, as will be discussed in more detail below, there is no single or standard automated data system or management information system within the Department of Defense. Rather, each Service has at least two data systems: one for civilian personnel and one for military personnel. Each Agency also has its own data system for its civilian employees. As a consequence, there is presently no automated management information system providing pertinent personnel information to the leadership within the Department. Since 1987, the DMDC has been trying to establish standard requirements for reporting data on contracting, Program Management, and other acquisition personnel (DODI 5000.52 (Draft)). This would include identification of contracting officers and Program Managers of both major and non-major programs. To date, the Services have not agreed to develop the data system structure to meet these requirements.

Army Data Systems

The Army currently has four different personnel data systems applicable to the acquisition workforce: one for military officers and three for civilians. The Deputy Commanding General, Information Management within the Army Personnel Command (PERSCOM) has overall responsibility for developing and maintaining all Army personnel information systems. The Personnel Information Systems Command (PERSINSCOM) is responsible for automation of the data systems for PERSCOM as well as field office systems, most notably the Standard Installation Division Personnel System (SIDPERS). The latter is the primary installation-level data interface to the centralized Army personnel data systems.

All Army personnel data systems require further enhancements to meet the requirements of DOD Directive 5000.52, DOD 5000.52-M (Draft), and DODI 5000.52 (Draft). Neither the military nor civilian system currently identifies contracting officers and Program Managers. Furthermore, neither system identifies mandatory training requirements or the training status of civilian and military personnel.

Officer Personnel Management Information System. This is a centralized military personnel data system under the cognizance of the Deputy Chief of Staff for Personnel (DCSPER). This system is used by PERSCOM for centralized management of the officer corps to include promotions, assignments, selection for training, command selection, the Officer Evaluation Reporting System (OERS), and strength data.

Civilian Personnel Data Systems. On the civilian side, the Army has three different civilian personnel data systems: the Standard Civilian Personnel Management Information System (SCPMIS), the Civilian Personnel Accounting System (CPAS), and the Corps of Engineers Management Information System (COMIS). All three systems are either fully or partially automated. There is also a Civilian Personnel Information Management System (CIVPERSINS) at Headquarters Army level.

In 1980 the Army began to develop a single, standard data system. The importance of this undertaking was reiterated when

President Reagan's Management Improvement Program (Reform 88), established in 1981–1982, directed that there be only one functional, e.g., civilian personnel, data system in an agency. After 4 years of tergiversation, the Director of the Army Staff decided in December 1984 to develop the Army Civilian Personnel System (ACPERS). With deployment scheduled from July 1987 through September 1988, it was intended to upgrade and standardize automated data processing support capabilities for civilian personnel administration functions such as training and development and staffing. Once implemented, this system was intended to support the 174 Army civilian personnel offices world-wide. However, ACPERS encountered software engineering difficulties and cost-growth problems. As a result of an Army study team's recommendations, the Under Secretary of the Army decided in April 1988 to cancel the ACPERS, after spending 27 million dollars, and adapt the Air Force Personnel Data System-Civilian. This alternative had previously been rejected by the Army in September 1983 for technical reasons. According to the General Accounting Office (*Acquisition of Army Civilian Personnel System*, B–229709, March 3, 1989), authority to approve ACPERS system development decisions has been restored to the Major Automated Information System Review Council (MAISRC).

The upshot is that the Army currently lacks an automated civilian personnel data system for operation of civilian personnel programs in contracting and other acquisition/Program Management career fields. The Army will be unable to effectively manage its acquisition workforce until a supporting data system is operational. The Army's decision to purchase the Air Force PDS–C is restricted to the base-level PDS–C functions, which will be known as the Army Civilian Personnel System (FIELD ACPERS). This system will be used for data input and installation-level personnel management. It is further planned that the FIELD ACPERS will be able to interface with an Army developed Headquarters ACPERS. But the primary focus of the latter is on strength reporting and accounting.

Navy Data Systems

Officer Personnel Information System. The Navy has a standard automated data system—the Officer Personnel Information System (OPINS)—for headquarters level management of the officer corps. It supports traditional centralized officer personnel management functions for assignment, promotion, performance, strength reporting, and data reporting of other corporate systems, such as the Defense Enrollment Eligibility System (DEERS). Data elements were developed and instituted to support generic requirements across all personnel specialities, for example, Aviation, Nuclear, and Staff. The system supports career development and DOPMA management requirements. The OPINS database is not a real-time information system, nor does it provide specifically tailored data to support the Department of Defense training and reporting requirements of the DOD Directive 5000.52 series at corporate or activity level. At present, OPINS cannot identify all mandatory training requirements for acquisition personnel within the purview of DOD 5000.52.

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Civilian Personnel Data System. The Navy's civilian career management system is decentralized as is civilian personnel management information systems. Although having acquired portions of the Air Force Personnel Data System-Civilian (PDS–C), the Navy is not presently using this data system for career program management purposes, but rather to support the operations of local civilian personnel offices in their operations. This situation is an impediment to providing standard management information to the Navy senior leadership in critical areas such as training and reflects the Navy's traditional, decentralized approach to civilian personnel management. Feedback is thus provided manually, or through face-to-face meetings. Individual activities and SYSCOMS also have their own feedback mechanisms. For example, at NAVFAC individual progress is tracked on a command-wide system which monitors training completions, education, contracting officer warrant levels, rank, grade, duty location and other relevant career management information. This provides an excellent management tool for NAVFAC in identifying training requirements, allowing them to effectively utilize their training resources. A master procurement training data base is maintained at Port Hueneme, California, and utilized by Headquarters NAVFAC on a daily basis to monitor the overall state of the training program. Other SYSCOMS have also established their own unique management information mechanisms to monitor the overall state of their career programs. What is lacking is a standard Navy system.

The Navy's Officer Personnel Information System, while sufficient to support traditional centralized officer personnel management functions is not sufficient to manage an acquisition career force. While the Navy has command-wide systems for tracing specific aspects (such as training) of civilian career development, the Navy has no centralized personnel data system that can provide standardized data on the civilian workforce, and any data to be used for career program management on a centralized basis must be assembled manually. Furthermore, significant changes are needed to comply with the Draft DODI.

Air Force Data Systems

The Air Force has two standard automated personnel data systems, one for military and the other for civilian personnel. Both systems are operated on the same computer hardware, located at each Air Force base or activity and a standard, common computer system run by the Air Force Military Personnel Center at Randolph Air Force Base, Texas. However, there are two distinctly different software programs and data bases to meet the distinctive needs of the military and civilian populations. Common to the military and civilian personnel data systems is a division in both between base level and centralized Headquarters Air Force (HAF) level systems. In both military and civilian systems, data flows from the various Air Force bases via AUTODIN to Randolph Air Force Base.

Military Personnel Data System (PDS). While the Military Personnel Data System is the single official Air Force military personnel data system, Air Force Systems Command (AFSC) has developed its own information system to facilitate the management of

personnel in the Acquisition Management Professional Development Program, developed and operated by the Air Force Military Personnel Center.

The PDS supports the personnel management operations of the base-level Consolidated Base Personnel Office (CBPO) and the Air Force Military Personnel Center for military members—officer and enlisted. Assignments, promotions, separations and accessions, Professional Military Education and other traditional personnel management actions are centrally managed by using PDS. The PDS is developed, operated, and maintained by AFMPC. PDS is used for work force analyses and modelling to project accession requirements and future training needs.

The PDS has the capability to provide various types of management information to functional managers upon request. For example, work force information on contracting members is provided to the Director of Contracting and Manufacturing Policy periodically. Nonetheless, enhancements to PDS would be required to comply with the acquisition career program requirements in the DOD 5000.52 series, especially in the areas of training and Program Management. This is especially the case in identifying contracting officers, Program Managers, and in monitoring mandatory training status.

HQ Air Force Systems Command maintains a MAJCOM-unique database containing all officers enrolled in the AMPDP. The personnel data system maintained by AFMPC contains a field describing the level of certification an officer has attained in the program. This provides direct feedback to the officer enrolled and management feedback to each field organization of AFSC as well as other Air Force MAJCOMs. Currently, neither the AFSC data system nor the Air Force PDS have the capability to identify individuals who are Program Managers or Deputy Program Managers for major and non-major programs.

Civilian Personnel Data System. The Air Force developed and uses an automated data system known as Personnel Data System-Civilian (PDS–C) for managing its civilian personnel. It consists of a base-level system and a centralized Headquarters Air Force level system, and uses the same computer systems that support the military PDS. PDS–C is extremely flexible, and programming changes to improve its capacity or enhance its capabilities are frequently made. Several other Federal agencies, including the Army and Navy, have adopted various segments of the Air Force base-level PDS–C system. PDS–C operates the Air Force-wide centrally managed career program referral system known as the Promotion and Placement Referral System (PPRS). It also provides a tool to manage the other aspects of career management, such as training. PDS–C interacts with other data systems, such as the training Pipeline Management System (PMS). This system is used by the Contracting and Manufacturing Civilian Career Program to manage its civilian workforce Air Force-wide.

AFCPMC has developed a near real-time career program MIS as an extension of PDS–C to allow PALACE Teams to better manage career program elements. The data base is extracted from the HAF-level PDS–C file. It provides information on positions, registrants, training, and other elements. Civilian PALACE Teams are

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able to use this information and to extract other management reports from PDS–C to provide the top civilian and military managers in the Air Force information on promotions, training, interns, and other essential information to manage the Air Force civilian workforce.

Defense Logistics Agency Data Systems

The Defense Logistics Agency lacks an effective automated data system to help manage its workforce and receive feedback information. Hence, management has to rely on manual means such as training surveys. A Headquarters Civilian Personnel Management Survey of primary level field activities is conducted periodically to assess field program operations. At that time, training and career management initiatives are evaluated and reports provided to field commanders. Other elements of the civilian contracting career program that are evaluated are recruitment, intern progress, assignments, and promotions.

The current field system, the Automated Payroll, Cost and Personnel System (APCAPS), is deficient in the training area. For example, it does not collect training requirements on a centralized basis, a situation highlighted by the fact that DLA has no current training data readily available. The most current overall data is based on field reports from Fiscal Year 1985. Periodic summary reports on military service school space requirements are obtained on a Fiscal Year basis.

On several past occasions, DLA initiated projects to design uniform ADP programs to enhance the management of training. Each effort was unsuccessful as resources were either not available or other ADP priorities were considered more important. Accordingly, each field activity was left to its own devices to collect and maintain such training requirements data as it judged necessary. Some activities developed manual systems and others developed rudimentary computer programs. As a result, there was no uniformity of data nor a capability to centrally manage the data. In March 1985, DLA decided to press for the use of one or more existing local management information systems agency-wide as an interim measure. Ultimately, it was decided to adopt a system developed in the Boston DCASR for Agency use. This system is known as the DLA Interim Training System (DITS). Barring funding or equipment problems, DITS should be in operation throughout DLA by FY90. Meanwhile, DLA is working to develop a new upgraded APCAPS Training Subsystem which should occur by FY91. However, as currently configured this system will not provide OSD all the information required by Draft DODI 5000.52.

CHAPTER IV—THE ACQUISITION WORKFORCE

As noted in Chapter I, the Department of Defense has had difficulty in identifying the categories of personnel for inclusion within the acquisition workforce. Over the years, there has been a steady expansion of the jobs and functions that are to be included within the scope of the acquisition workforce. Nonetheless, it has proven difficult to translate the definition of acquisition into the identification of personnel involved in the acquisition function.

CIVILIAN PERSONNEL IN THE ACQUISITION WORKFORCE

Utilizing the proposed criteria of the Draft DOD Manual 5000.52-M (Dec. 13, 1988), the Defense Manpower Data Center (DMDC) has categorized the civilian acquisition workforce to include personnel in nine "core" or basic occupational series, plus more than sixty additional "shared" series when those personnel are assigned to a procurement or acquisition command. Individuals in the core or basic series are considered part of the acquisition workforce no matter where they are assigned. Conversely, individuals in the shared series have skills or specialities that are not exclusively in an acquisition function; these individuals are identified as part of the acquisition workforce only if assigned to an acquisition organization (this presumes they are performing acquisition functions in that organization).

The nine core acquisition series are:

CORE ACQUISITION SERIES

Series	Title
GS-246	Contractor Industrial Relations.
GS-340	Program Management.
GS-345	Program Analysis.
GS-346	Logistics Management.
GS-511	Auditing.
GS-1102	Contracting.
GS-1103	Industrial Property Management.
GS-1104	Property Disposal.
GS-1150	Industrial Specialist.

Civilians assigned to a procurement or acquisition command, who are in the following shared occupational series are also included in the acquisition workforce: approximately twenty different engineering series such as general engineer, mechanical, aeronautical, naval, electronic, and industrial engineer; life sciences; physical sciences including physics and chemistry; mathematics, computer science, and operations research; business and industry; equip-

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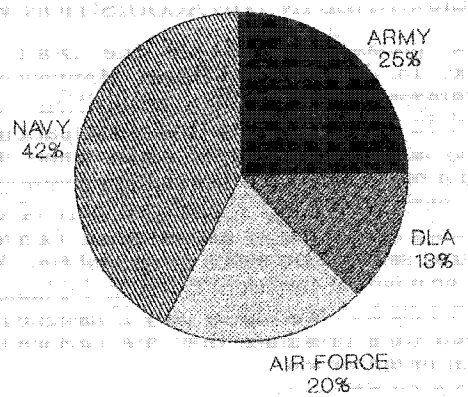
ment specialist; supply and transportation; budget and financial management; and, quality assurance.

The table at Exhibit IV-1 provides a complete tabulation of acquisition civilians both within and external to the acquisition commands:

EXHIBIT IV-1

CIVILIAN ACQUISITION WORKFORCE TOTAL WORKFORCE



CIVILIAN ACQUISITION WORKFORCE

Series/assignment	Army	Navy	Air Force	DLA	DOD Total
Shared series (acquisition command)	34032	70521	27179	13276	145008
Basic series (acquisition command)	8617	10254	8931	8100	35902
Basic series (non-acquisition)	6491	1974	3888	5273	18026
Total Workforce	49140	82749	39998	27049	198936
Percent of total acquisition	25	42	20	13	100

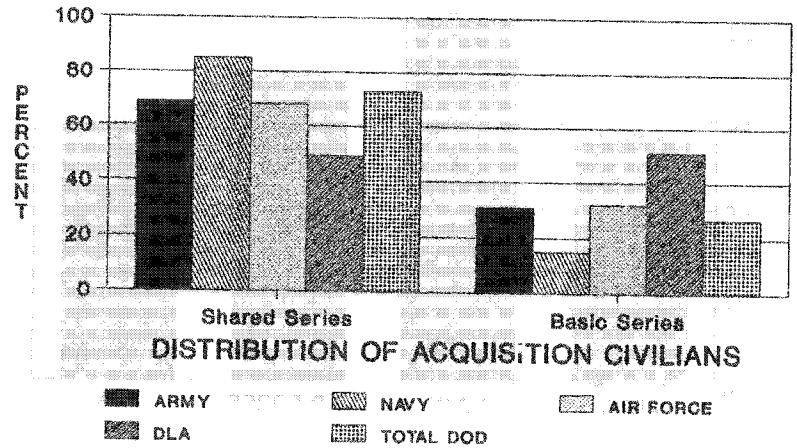
From this table, four key factors about the acquisition workforce can be derived. First, the Navy has the largest percentage of the total DOD civilian acquisition workforce (42 percent), followed by the Army (25 percent), the Air Force (20 percent), and lastly, the Defense Logistics Agency (13 percent).

Second, seventy-three percent of the DOD civilian acquisition workforce is classified in "shared" series (not considered acquisition unless assigned to an acquisition command). The breakout be-

tween shared and basic series by Service and Agency is displayed by Exhibit IV-2:

EXHIBIT IV-2

PERCENT DISTRIBUTION OF ACQUISITION CIVILIANS



PERCENT DISTRIBUTION OF ACQUISITION CIVILIANS

	Army	Navy	Air Force	DLA	Total DOD
Shared Series	69	85	68	49	73
Basic Series	31	15	32	51	27

Third, while the great majority of personnel in the basic or core acquisition disciplines are assigned to acquisition commands, there are significant numbers assigned and presumably performing acquisition functions in non-acquisition commands. For example, the largest portion of the Navy's basic acquisition civilian workforce is assigned to the acquisition commands (84 percent), followed by the Air Force (70 percent), the Defense Logistics Agency (59 percent), and the Army (57 percent). Exhibit IV-3 shows the distribution of the personnel in the nine core or basic acquisition series by service and type of command.

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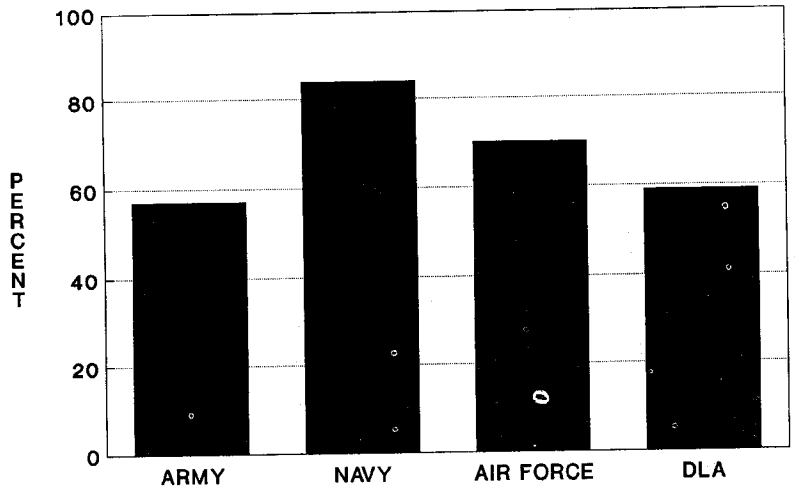
EXHIBIT IV-3

BASIC CIVILIAN ACQUISITION SERIES PERCENT ASSIGNED TO ACQUISITION COMMAND



BASIC CIVILIAN ACQUISITION SERIES

	Army	Navy	Air Force	DLA
Acquisition commands	8617	10254	8931	8100
Non-acquisition commands	6491	1974	3888	5673
Total	15108	12228	12819	13773
Percent assigned to acquisition commands	57	84	70	59

Fourth, in no case does the acquisition workforce constitute a majority of civilians assigned to the acquisition or procurement commands. For the Services, the proportion of civilians in the acquisition field assigned to the acquisition commands is about one-third of all civilians assigned.

MILITARY PERSONNEL IN THE ACQUISITION WORKFORCE

Again using the proposed new criteria, the military acquisition workforce has been identified in terms of personnel in basic or core specialties that are considered acquisition positions by definition, and personnel in certain specialties that are included in the acquisition workforce when assigned to an acquisition or procurement command. The specialties included are different for each of the services.

Army

The Army has six different specialty skills that may be considered core or basic to acquisition. These skills and their distribution are shown in Exhibit IV-4.

EXHIBIT IV-4—ARMY OFFICER CORE SPECIALTIES

SSI	Occupation	Acquisition commands	Non-Acquisition commands	Total
45B	Program/budget	20	124	144
51A	Research and development	470	210	680
51B	Test and evaluation	102	148	250
97A	Contracting and industrial management	86	157	243
97B	Contract management	98	65	163
97C	Industrial management	42	6	48
	Total	818	710	1528

About 54 percent of the Army's personnel in basic acquisition specialties are assigned to acquisition commands. The Army also has 381 officers in 11 different occupations or specialties that are considered part of the acquisition workforce while assigned to an acquisition command.

Navy

As shown in Exhibit IV-5, the Navy has officer positions in 19 specialties or occupations (known as Navy Officer Billet Classification (NOBC) codes) that are considered basic acquisition functions.

EXHIBIT IV-5—NAVY OFFICER CORE ACQUISITION SPECIALTIES

NOBC	Occupation	Acquisition commands	Non-acquisition Commands	Total
1015	Auditing officer	2	28	30
1476	Procurement management officer	34	20	54
1480	Procurement contracting officer	105	57	162
1485	Administrative contracting officer	24	84	108
2161	Major project manager (Select)	63	0	63
2162	Deputy designated project manager	27	2	29
2163	Manager, designated project functional element	105	10	115
2164	Designated project business administrator	40	4	44
2165	Designated project systems integration coordinator	42	10	52
2166	Designated project engineering coordinator	9	0	9
2167	Designated project test and evaluation coordinator	13	6	19
2168	Designated project integrated logistics system coordinator	15	3	18
2170	Designated project support officer	263	45	308
6708	Weapons procurement officer	1	1	2
6717	Program manager, Weapons systems	26	15	41
6914	Naval plant representative	16	14	30
7330	Engineering materiel planning and procurement officer	0	1	1
7445	Production engineering officer	2	5	7
7450	Shop production officer	1	8	9
	Total	788	313	1101

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The great majority (72 percent) of the personnel in the basic specialties are found in the Navy acquisition commands. The Navy also has 2,165 officers in 139 different shared specialties that are assigned to acquisition commands and thus considered part of the acquisition workforce.

Air Force

The Air Force has 12 different specialties or Air Force Specialty Codes (AFSCs) in the core acquisition series, as shown in Exhibit IV-6.

EXHIBIT IV-6—AIR FORCE OFFICER CORE ACQUISITION SPECIALTIES

AFSC	Occupation	Acquisition Commands	Non-acquisition commands	Total
2716	Acquisition management	632	303	935
2724	Acquisition project officer	1097	346	1443
2736	Computer systems acquisition manager	19	9	28
2895	Project engineer	209	115	324
6516	Acquisition contracting/manufacturing staff officer	268	216	484
6524	Production/manufacturing	93	22	115
6534	Acquisition contracting officer	359	372	731
6544	Manufacturing engineering	18	2	20
6596	Acquisition contracting/manufacturing director	64	37	101
6746	Cost analysis officer	135	274	409
6784	Auditor	6	127	133
6796	Auditor, staff	1	43	44
	Total	2901	1866	4767

In the case of the Air Force, 61 percent of the personnel in the core specialties are assigned to the two procurement commands, Air Force Systems Command and Air Force Logistics Command. The Air Force also has 4,190 officers from 29 different shared AFSCs assigned to the two acquisition commands and thus considered part of the acquisition workforce.

Comparison Among the Services

As shown by Exhibit IV-7, the Air Force has the largest number of military acquisition officers within the Department of Defense (63 percent), followed by the Navy (23 percent) and Army (14 percent).

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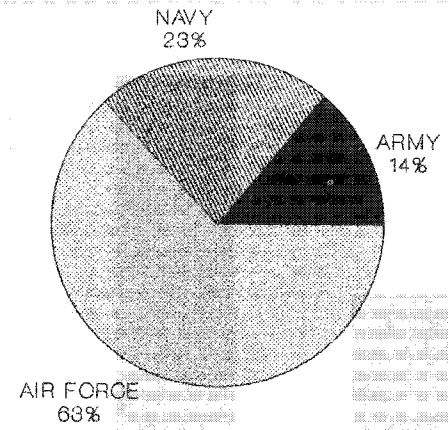
EXHIBIT IV-7

ACQUISITION OFFICERS
PERCENT OF TOTAL



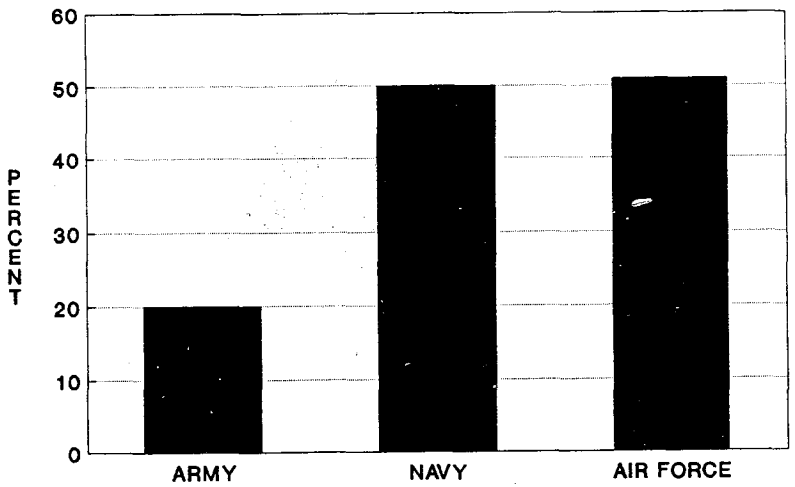
ACQUISITION OFFICERS—(September 1988)

	Army	Navy	Air Force	DOD Total
Acquisition commands:				
Shared	381	2165	4190	6736
Basic	818	788	2901	4507
Non-acquisition command:				
Basic	710	313	1866	2889
Total	1909	3266	8957	14132
Percent of total	14	23	63	100

In terms of the proportion of shared to basic acquisition series, the Army has the largest proportion of its officers in the basic series (80 percent) compared to the Air Force (53 percent) and Navy (34 percent). The Air Force and Navy acquisition officers within their respective acquisition commands represent 51 and 50 percent of the assigned military officer strength respectively, whereas the Army acquisition officers represent only 20 percent of all officers in their acquisition organizations as indicated by Exhibit IV-8.

EXHIBIT IV-8

PERCENT OF ACQUISITION OFFICERS IN ACQUISITION COMMANDS



OFFICERS ASSIGNED TO ACQUISITION COMMANDS—(September 1988)

	Army	Navy	Air Force
Acquisition officers	1199	2953	7091
Non-acquisition officers	4665	2980	6804
Total	5864	5933	13895
Percent acquisition officers in acquisition commands	20	50	51

COMBINED MILITARY AND CIVILIAN ACQUISITION WORKFORCE

Although the Air Force has the largest acquisition officer corps, the Navy has the largest acquisition workforce when military officers and civilians are combined. The Navy, with 86,015 personnel, is followed by the Army at 51,049, and the Air Force at 48,955.

As can be seen by the tables in Exhibit IV-9, both the Navy and Army have a very large civilian acquisition workforce (96 percent), whereas the Air Force has a civilian proportion of 82 percent. In fact, the number of Air Force officers in acquisition is larger than the number of Army and Navy officers combined.

The percentage columns following civilian and military indicate the relative proportion of civilians to military in each category.

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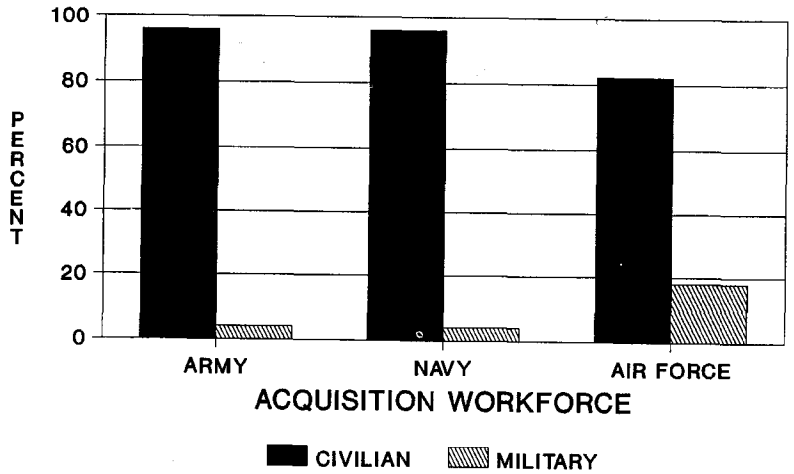
The last percent column reflects the total distribution among the series categories.

EXHIBIT IV-9

ACQUISITION WORKFORCE
PERCENT CIVILIAN/MILITARY



ARMY ACQUISITION WORKFORCE—(OFFICER AND CIVILIAN)

Series	Civilian	Per-centage	Military	Per-centage	Total	Series per-centage
Shared series	34032	99	381	1	34413	68
Basic (acquisition)	8617	91	818	9	9435	18
Basic (non-acquisition)	6491	90	710	10	7201	14
Total	49140	96	1909	4	51049	.....

NAVY ACQUISITION WORKFORCE—(OFFICER AND CIVILIAN)

Series	Civilian	Per-centage	Military	Per-centage	Total	Series per-centage
Shared series	70521	97	2165	3	72686	85
Basic (acquisition)	10254	93	788	7	11042	13
Basic (non-acquisition)	1974	86	313	14	2287	2
Total	82749	96	3266	4	86015	.....

AIR FORCE ACQUISITION WORKFORCE—(OFFICER AND CIVILIAN)

Series	Civilian	Percentage	Military	Percentage	Total	Series percentage
Shared series	27179	87	4190	13	31369	64
Basic (acquisition)	8931	75	2901	25	11832	24
Basic (non-acquisition)	3888	68	1866	32	5754	12
Total	39998	82	8957	18	48955	.....

Including the 27,049 acquisition civilians in the Defense Logistics Agency, the total Department of Defense acquisition workforce is 213,068. Ninety-three percent, or 198,936, are civilians.

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CHAPTER V—THE CONTRACTING WORKFORCE

MILITARY AND CIVILIAN CONTRACTING WORKFORCE—CHARACTERISTICS

The contracting workforce, a core element of the acquisition workforce, is composed of both military and civilian personnel. The civilians are an homogeneous group, who are defined by their occupational series: the GS-1102, Contracting, occupational series. While there are civilians outside of the GS-1102 series who may perform contracting functions, it is not possible to describe their characteristics because they are not identified as performing contracting functions in the DOD data systems.

The military also uses skill identifiers to identify their personnel in contracting, such as the Army Specialty Skill Identifier (SSI) and the Air Force Specialty Code (AFSC). Individuals carrying these as their *primary* skill are included within the data capture and reports of the Defense Manpower Data Center, but the information provided is problematic in two particulars. First, as with the civilian workforce, military personnel outside the contracting career field may be contracting officers—and frequently are. Second, because of the practice of dual tracking, many military contracting personnel do not carry a contracting career field designation as their primary career field though they are engaged in contracting functions. For example, the Army had a small number of officers (62) at the end of fiscal year 1988 with a primary Specialty Skill Identifier (SSI) of FA97 (contracting) assigned and reported to the Defense Manpower Data Center. However, the Army had a total of 539 officers assigned to contracting positions, most of whom had a secondary or duty SSI of 97 assigned. In fact the Army has 1574 officers with a primary or secondary (because they are dual-tracked) SSI of 97 (contracting) assigned, a significant variance from the 62 reported in the data system.

While the inability to include in the reporting system persons not in the contracting career field who are performing contracting functions is a problem, the inability to identify military personnel with contracting skills as a secondary skill identifier probably has a much greater impact on the overall numbers.

Civilian Contracting Workforce

Notwithstanding the fact that on a limited basis others may perform contracting actions, the GS-1102 series is *ipso facto* the civilian contracting workforce. This is the classification used by the Office of Personnel Management, Office of Federal Procurement Policy, and the Department of Defense in defining the contracting workforce. Accordingly, the information provided applies only to the GS-1102 series.

This series is described in the OPM Classification Standards of December 1983, which superseded those of 1969, as encompassing positions that manage, supervise, perform or develop policies and procedures for work involving the procurement of supplies, services, construction, and research and development using sealed bidding and negotiation, evaluation of contract proposals, and administration, termination and close-out of contracts. There are six specialties within the GS-1102 series.

Contract Specialist positions require knowledge of pre-award and post-award procedures from describing requirements through contract delivery. It encompasses two or more of the following five contract functions.

Contract Negotiator positions require specialized knowledge of negotiation techniques with emphasis on the pre-award aspects of the contracting process.

Contract Administrator positions require specialized knowledge of post-award contracting procedures to assure compliance with contract terms and conditions.

Contract Termination positions predominately require a specialized knowledge of post-award procedures and negotiation techniques to represent the government in Termination for Convenience and Termination for Default actions and in claims or settlements from terminations.

Contract Price/Cost Analyst positions require specialized knowledge of cost/price analysis techniques to evaluate cost and/or price proposals, for both pre-award and post-award contract actions.

Procurement Analyst positions require broad knowledge of procurement policies and procedures to plan, analyze or evaluate procurement programs, and review proposed contractual actions for conformance with regulatory requirements.

Comparison of GS-1102 Series Personnel Government-wide

Size. The Department of Defense has historically been the largest employer of contracting civilians in the Federal government. For example, the Department of Defense in 1987 employed over 22,000 GS-1102 personnel, or 75 percent of the 30,000 contracting personnel employed by the Federal government. There was a significant increase in the size of the contracting workforce within the Government between 1978 and 1987, as can be seen by Exhibit V-1. During this period the size of the contracting workforce in the Department of Defense increased by 71 percent and the non-DOD contracting workforce increased by 49 percent, resulting in an overall increase of 65 percent.

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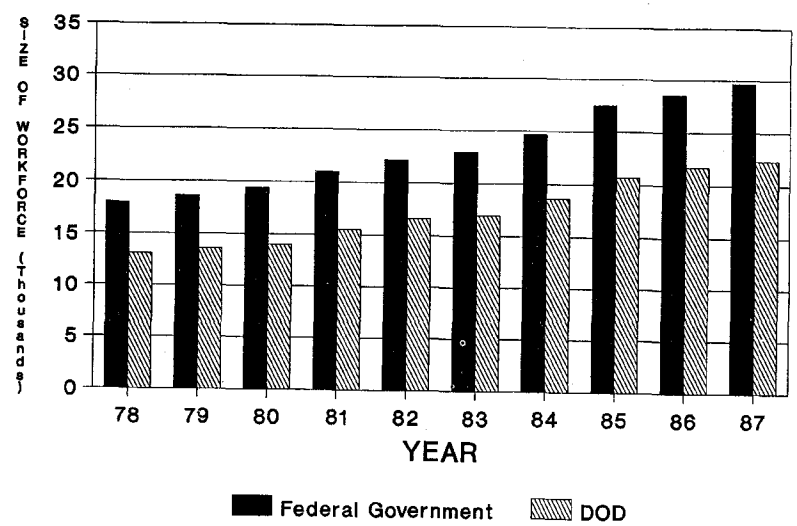
EXHIBIT V-1

GROWTH OF GS-1102 WORKFORCE



Demographic Comparisons. As shown in Exhibit V-2, the Department of Defense workforce compares favorably with the Government-wide contracting workforce in several key areas.

EXHIBIT V-2—GS-1102 COMPARISON FISCAL YEAR 1987

	Government wide	DOD	Army	Navy	Air Force	DLA
Number	29,668	22,350	6,299	4,821	6,156	4,826
Average grade	10.64	10.57	10.55	10.56	10.57	10.52
Average age	41.95	41.5	41.6	40.0	41.8	42.4
College grads	51%	52%	46%	50%	59%	55%
Loss rate	9.8%	9.4%	9.2%	11.6%	9.7%	7.3%
Retirement eligible	6%	6%	6%	6%	5%	9%
Ratio internal to external hires	2.4:1	2:1	1.7:1	2.6:1	1.8:1	2:1

The average grade and average age in the Department of Defense is slightly lower than the Government-wide average but the Department of Defense workforce is better educated, and has a slightly lower loss or quit rate. The number of retirement eligibles within the Department of Defense overall is about the same as in the total Federal workforce but the rate of internal to external hires is lower. In comparing the average grade within the Department of Defense with other large contracting agencies within the Federal government, the Department of Defense has had lower average grades except for the Veterans Administration.

Comparison of GS-1102 Series Personnel with Administrative Series Personnel in DOD

It is instructive to compare the GS-1102 series to other acquisition occupational series and to all administrative series within the Department of Defense. In March 1987, the Defense Manpower Data Center did an analysis of the acquisition workforce (then defined as GS-1102, GS-1103, GS-1150, and GS-1910 series) and compared that to the overall administrative workforce from 1976 to 1986 to determine macro-level changes. It compared the GS-1102 personnel to all administrative series and the other three "acquisition" series. There was a 42 percent increase between 1976 and 1986 in personnel in all administrative series and a 52 percent increase within the acquisition series. However, contracting personnel (GS-1102) showed a 77 percent increase. As Exhibit V-3 indicates, personnel in the GS-1102 series have had fewer years of service both in 1976 and in 1986 than did personnel in either the acquisition occupational series or all administrative series. All three groups experienced a decrease in average years of length of service (LOS) between 1976 and 1986. Both in 1976 and in 1986 the GS-1102 series had a smaller percentage of retirement eligibles than either of the other two groups. Compared to the other groups, the GS-1102 workforce was better educated in both 1976 and in 1986.

EXHIBIT V-3—COMPARISONS OF KEY INDICATORS

[1976 to 1986]

	Administrative	Acquisition	GS-1102
Number:			
1976	137,833	27,262	12,319
1986	196,134	41,486	21,776
Difference (percentage)	+42	+52	+77
Average length of service (years):			
1976	20.1	20.2	18.3
1986	16.5	15.2	14.1
Difference (years)	−3.6	−5.5	−4.2
Retirement Eligibility (percentage):			
1976	41.8	46.7	36.4
1986	27.2	24.7	21.2
Difference (percentage)	−14.6	−22.0	−15.2
College degree (percentage):			
1976	28.7	25.5	42.3
1986	36.9	36.7	51.9
Difference (percentage)	+8.2	+11.2	+9.6
Average Grade:			
1976	10.8	10.5	10.7
1986	10.6	10.4	10.4
Difference	−0.2	−0.1	−0.3

Comparison of GS-1102 Series personnel within DOD

Size. A comparison of the civilian work force among the three Services and the Defense Logistics Agency shows that the Air Force has the largest proportion of the contracting work force. In 1988, the distribution of civilians was fairly even among the Services and DLA. As shown by Exhibit V-4, the Air Force employed the largest share of the GS-1102 civilians overall, followed by the Army, Navy, and then DLA. Exhibit V-5 indicates the size of the DOD GS-1102 workforce each year from 1972 to 1988. Throughout this period the Army and Air Force had the largest number of contracting personnel. During many of those years, the Air Force had the largest number of civilians in the contracting workforce, followed by the Army, Navy, and DLA respectively. However, in several years the Army had a slightly larger number of civilians in contracting than did the Air Force.

The graph at Exhibit V-6 compares the percent change in the total DOD civilian workforce each year from 1972 to 1987, to the change in contract dollars awarded both in current year and constant year (1988) dollars. As shown, there was a slight decline in the number of personnel from the 1972 base year until 1977, and a rather significant increases in personnel from 1983 to 1987. In every year through 1983, the change in workforce size lagged behind the increase in dollars obligated. Only from 1984 on did the increase in workforce surpass the increase in dollars obligated.

EXHIBIT V-4

DEPARTMENT OF DEFENSE GS-1102 WORKFORCE (1988)

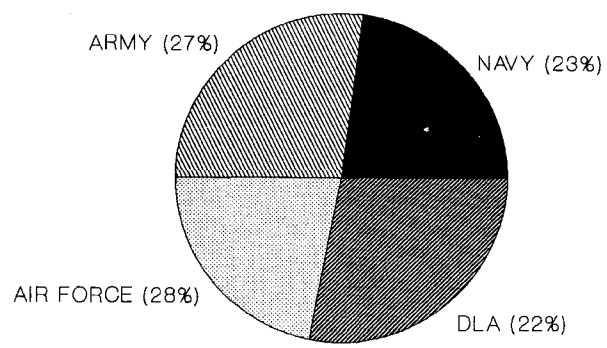


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EXHIBIT V-5

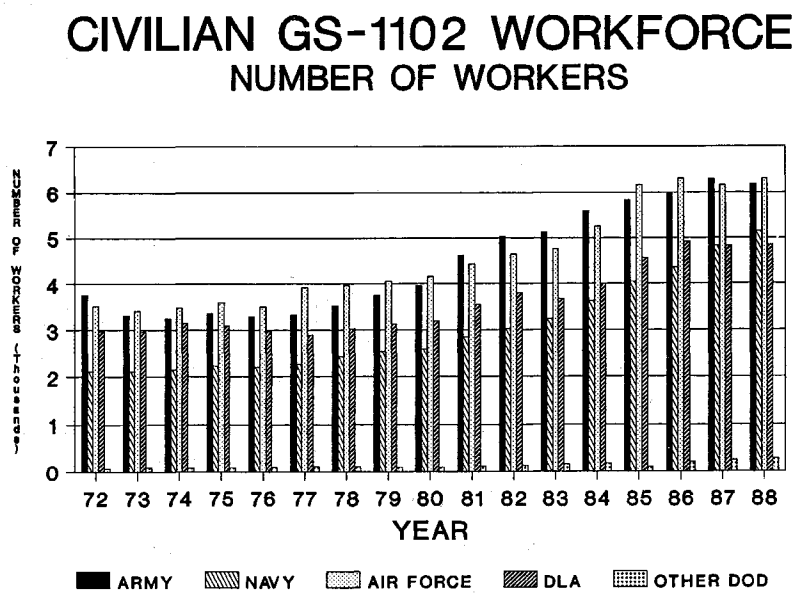
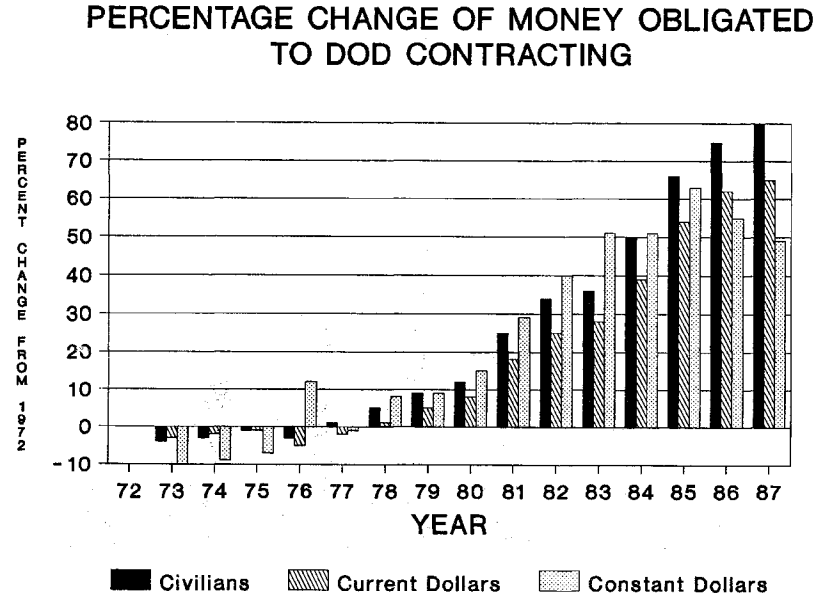


EXHIBIT V-6



IN FY89 CONSTANT DOLLARS

Grades. As shown in Exhibit V-7, during the years 1976 through 1986, there was an increase in entry-level grades (GS-5 and GS-7) and in the GS-12 level grades, but a decline in senior level personnel and GS-9s. A comparison of the GS-1102 work force with all other administrative series shows that the average grade is about the same.

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EXHIBIT V-7

DOD OCC 1102 GRADE DISTRIBUTION

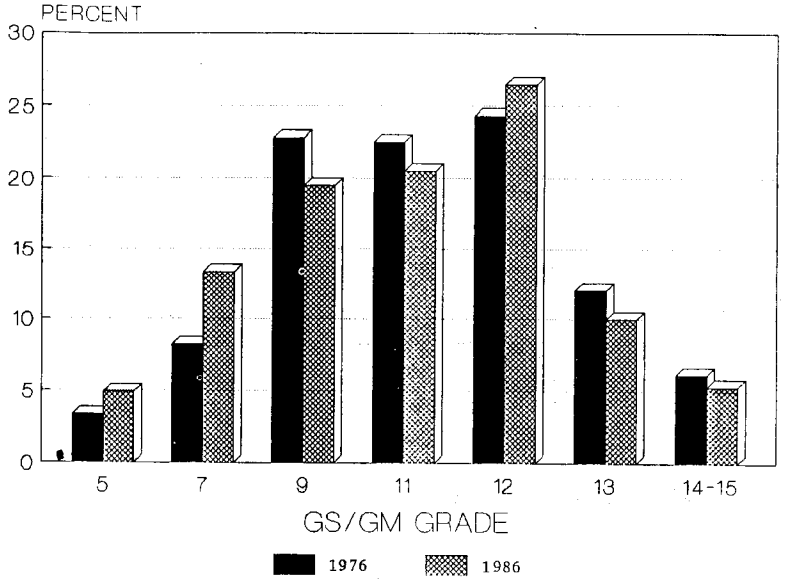

Exhibit V-8 provides a stratification of the workforce by level—Level I (GS-5/8), Level II (GS-9/12), Level III (GS-13/15) and shows that a significantly large percentage of the workforce is at the journeyman level (Level II).

EXHIBIT V-8—PERCENT OF GS-1102s IN EACH LEVEL

[Average distribution 1972-1988 in percent]

	Army	Navy	Air Force	DLA	DOD other	Total
Level:						
I	15	16	16	15	10	15
II	70	63	65	73	50	68
III	15	21	19	12	40	17
Total	100	100	100	100	100	100

The highest number of senior grade personnel exist in "other DOD activities". This difference is primarily attributable to the higher grade levels of the OSD staff. Among the Services, the Navy has the highest and DLA the lowest percentage of personnel in Level III grades. The Army has the largest proportion at the journeyman level.

Exhibit V-9 provides a stratification of the percentage of personnel at each level by Service.

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EXHIBIT V-9—STRATIFICATION OF GS-1102 WORKFORCE

[Level and percent]

Level	1975	1980	1985	1988
I:				
Army	30	27	23	27
Navy	22	18	18	23
Air Force	30	29	35	30
DLA	18	26	24	20
II:				
Army	28	28	30	27
Navy	16	18	19	21
Air Force	28	30	28	28
DLA	28	24	23	23
III:				
Army	24	28	28	27
Navy	24	23	25	26
Air Force	33	33	32	28
DLA	19	16	15	16

Over time, one sees the relative increase of the entry levels from 1985 when the workforce was expanding. By 1988, many of the entry level personnel had moved to the journeyman level. As shown by Exhibit V-10 in terms of average grade (excluding the "DOD other" category), by 1988 the Army had the highest average grade with the DLA lowest.

EXHIBIT V-10

GS-1102 AVERAGE GRADE

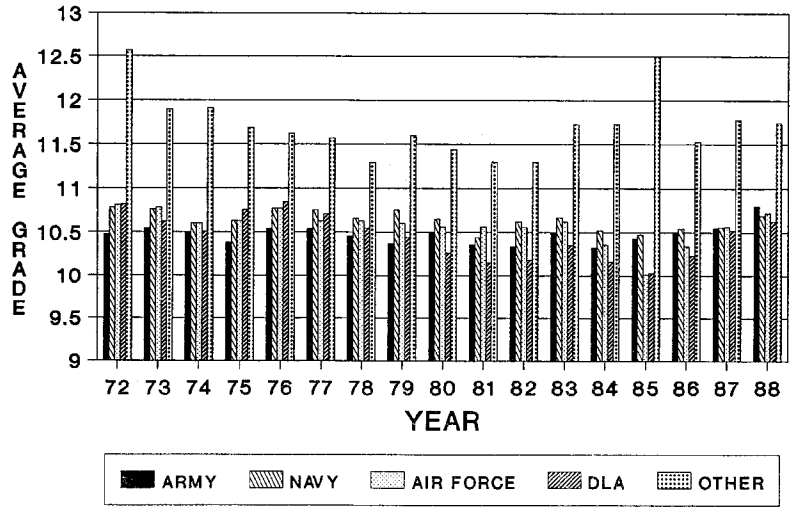
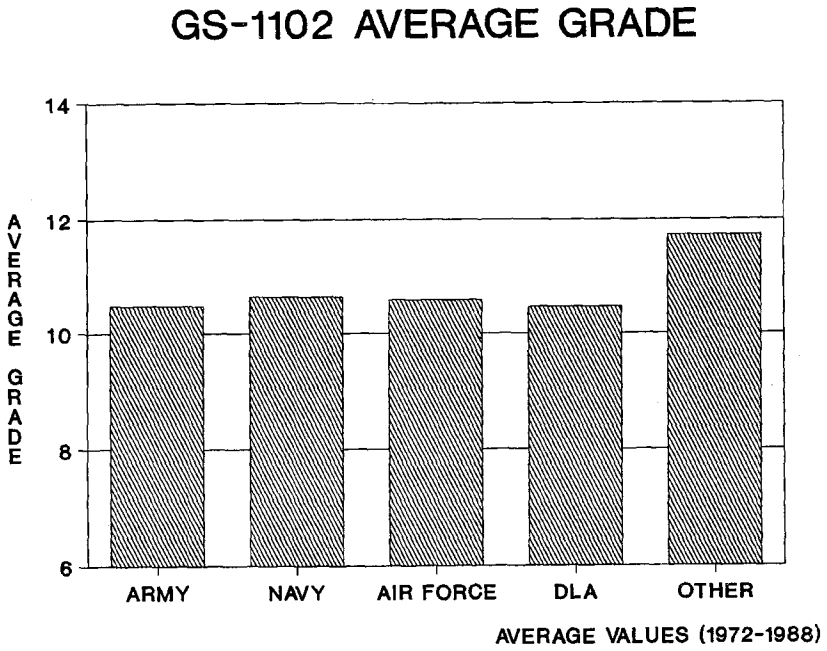


Exhibit V-11 portrays the average grade of the GS-1102 workforce over the period 1972 to 1988. During that period, the GS-1102s in the Navy had the highest composite average grade (10.64) followed by the Air Force, Army, and then DLA.

EXHIBIT V-11



Age and Experience. As shown by Exhibits V-12 and V-13, the GS-1102 workforce is becoming younger and less experienced as measured by the average age and length of service (LOS). For a number of years, the Navy has had the youngest contracting workforce and its personnel also have had the fewest years of service.

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EXHIBIT V-12

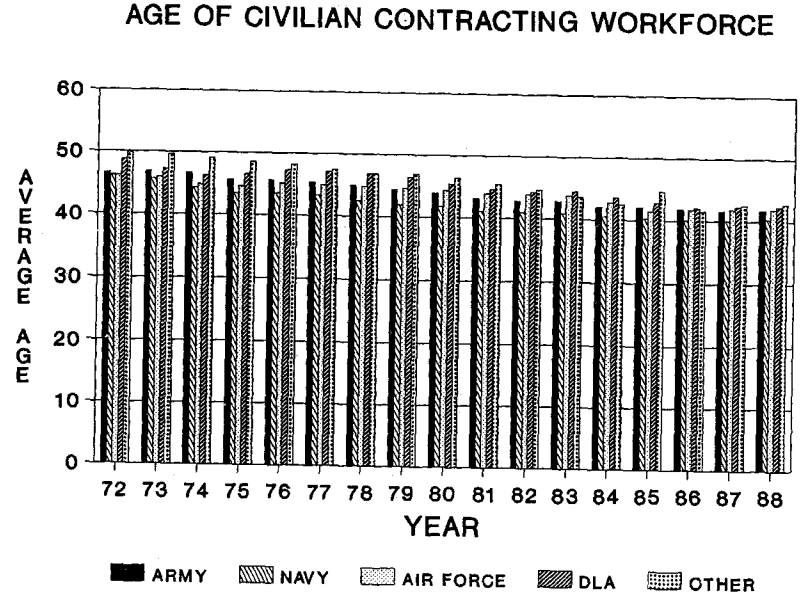
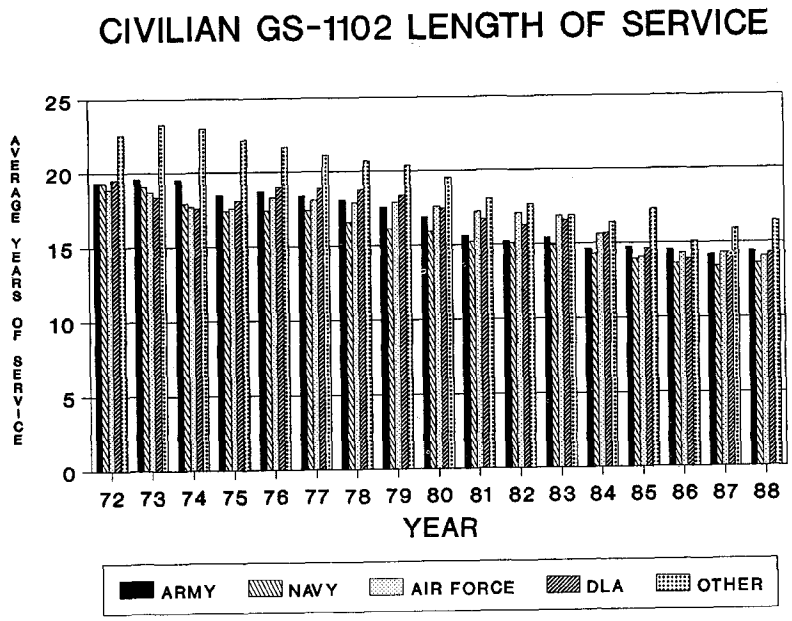
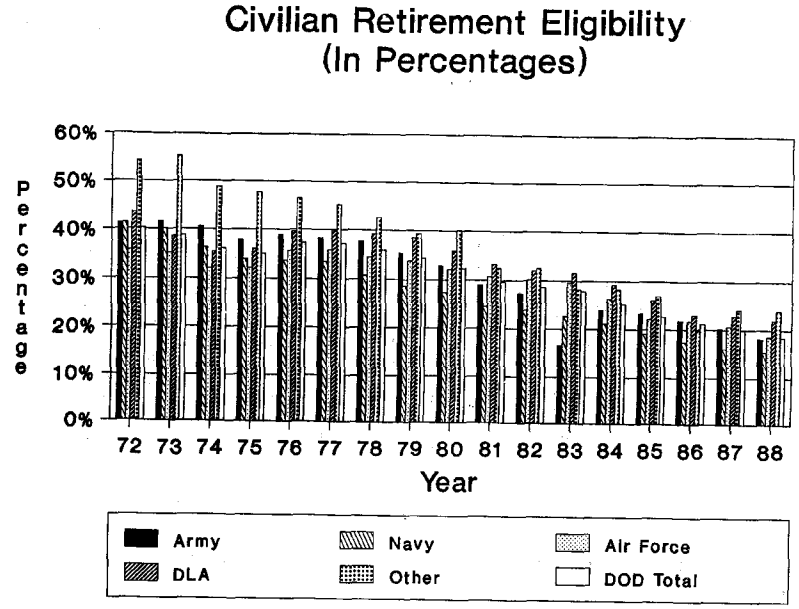


EXHIBIT V-13



On the other hand, as shown by Exhibit V-14, the Navy also has generally had the fewest number of personnel in contracting who are eligible for retirement.

EXHIBIT V-14



Education. The Air Force contracting civilians are the best educated, followed by the Defense Logistics Agency, the Navy, and the Army. From 1972 to 1988, the Air Force has led the DOD with the highest percentage of GS-1102s with a college degree. Exhibit V-15 shows that, with the exception of the Navy, all the services and DLA have shown steady progress in achieving a better educated contracting workforce.

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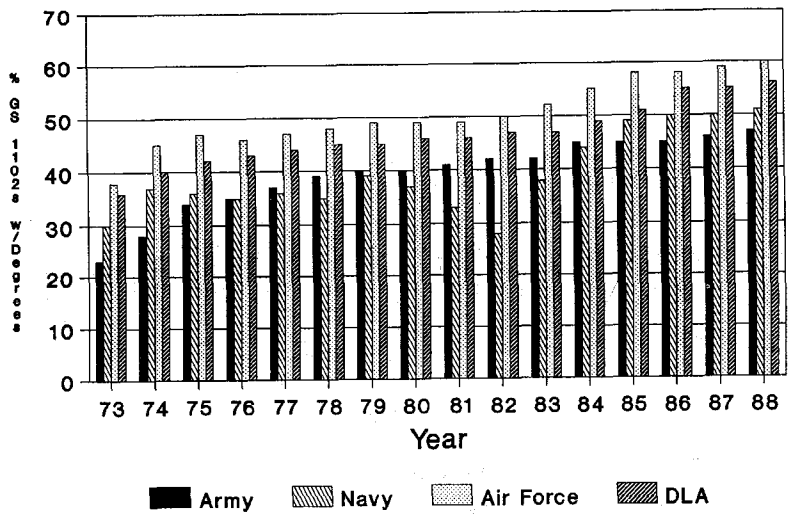
EXHIBIT V-15

Civilian Workforce with College Degrees



Attrition. Between 1976 and 1986, the DOD GS-1102 workforce had an average annual separation rate of 9.3 percent. This rate consists of three elements: voluntary quits, retirements, and transfers out. As indicated by Exhibit V-16, retirements accounted for the largest component of the attrition rate, followed by transfers out, and voluntary resignations. The highest attrition rates occurred in 1980 and 1984-85. Broken down between the components of DOD, the average attrition rate between 1976 and 1986 was: Navy—10.04 percent; DLA—9.95 percent; Army—9.04 percent; and Air Force—8.94 percent.

EXHIBIT V-16—GS-1102 SEPARATIONS—1976-1986

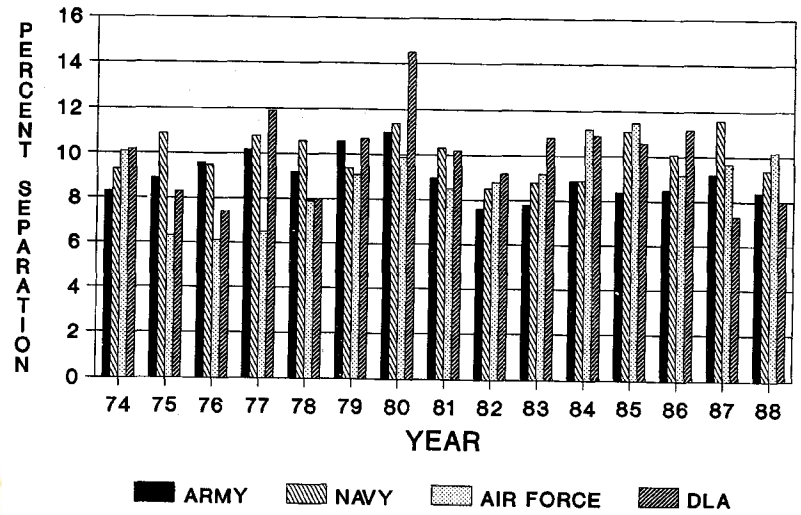
[(In percent]

Category	1976	1986	Average
Voluntary quits	1.8	2.9	2.2
Retirements	3.3	3.1	3.5
Transfers out	2.2	3.2	3.3
Total	8.0	9.7	9.3

Significantly, the voluntary quit rate for GS-1102 personnel increased markedly (60 percent) between 1976 and 1986; there was also a relatively large increase in transfers out during this period. Exhibit V-17 portrays the GS-1102 separation rates by service from 1974 to 1988.

EXHIBIT V-17

CIVILIAN GS-1102 SEPARATION RATES



GS-1102 Civilians in Acquisition Commands. Exhibit V-18 shows the percentage of the contracting workforce in each Service assigned to acquisition commands.

EXHIBIT V-18—GS-1102 CIVILIANS IN ACQUISITION COMMANDS

[In percent]

	1980	1985	1988
Army	61	60	60
Navy	81	83	92
Air Force	74	77	70

The Navy has the largest concentration of contracting personnel within its system commands, with this concentration increasing over the last 8 years. The proportions within the Army and Air Force have remained fairly constant, with slight increases in the size of the non-acquisition command workforces.

Military Personnel in the Contracting Workforce

Comparison of Military Contracting Personnel Within DOD

Size. Among the Services, the Air Force has consistently had the largest number of military personnel in contracting. In 1988 58 percent of all officers in contracting within the DOD were in the Air Force (Exhibit V-19). Data to develop the percentage of military

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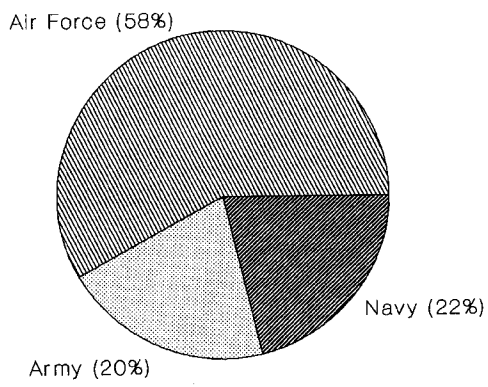
contracting personnel displayed in Exhibit V-19 was provided by the Services and represents the officers occupying contracting positions in each Service. The relative proportions change depending on the criteria used for measurement. For example, while the Army had 539 contracting positions, there were 1,574 Army officers with a contracting specialty. However, 1,471 of these officers (93 percent) were considered to be in a "dual track" in contracting, with only 103 "single track" contracting personnel. Thus the proportion changes if you include officers whether assigned to a contracting position or not, accordingly: Air Force (42 percent), Army (43 percent), and Navy (15 percent). Conversely, if one includes only those Army officers with a "single track" in the 97 career field, the proportions change as follows: Air Force (70 percent), Navy (26 percent), and Army (4 percent).

EXHIBIT V-19

MILITARY OFFICER CONTRACTING WORKFORCE 1988



The Defense Manpower Data Center (DMDC) only includes in its reports Army officers with a 97 "single track". Based on the DMDC database, the number of Air Force officers in contracting remained relatively constant at around 1400 until the 1980's, when it began expanding, and by 1985 exceeded 1500. At the same time, the Navy officers in contracting declined slightly while the number of Army officers with a primary skill identifier of contracting declined significantly between 1972 and 1986. Based on data from the DMDC data base, the number and percentage of military officers in contracting from each service are displayed in Exhibit V-20.

EXHIBIT V-20—MILITARY OFFICERS IN CONTRACTING—DMDC DATABASE

[Percent by service]

	1972		1975		1980		1985		1987	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Army	440	19	455	20	148	8	75	4	105	5
Navy	487	21	421	19	364	19	380	19	412	20
Air Force	1,408	60	1,367	61	1,396	73	1,564	77	1,570	75

Grade. The Air Force has consistently had the largest number of officers at the entry levels (0-1 and 0-2) while the Army has ceased to assign officers in contracting at the rank of lieutenant. This is due to basic personnel management differences; the Army is inclined towards dual specialization whereas the Air Force favors a single career track for its support officers. As shown in Exhibit V-21, the largest percentage of officers in the contracting field occurs at the O-5/O-6 level in the Army and at the O-3/O-4 level in the Navy and Air Force.

EXHIBIT V-21—DISTRIBUTION OF OFFICERS BY RANK WITHIN EACH SERVICE

[In percent]

	1975	1980	1985
0-1/0-2:			
Army	8	0	0
Navy	6	6	4
Air Force	15	24	18
0-3/0-4:			
Army	55	43	39
Navy	57	53	58
Air Force	64	53	61
0-5/0-6:			
Army	37	57	61
Navy	37	41	38
Air Force	21	23	21

Age and Experience. As shown in Exhibit V-22, since 1972 the Air Force has consistently had the youngest military contracting workforce, followed by the Navy and then the Army.

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EXHIBIT V-22

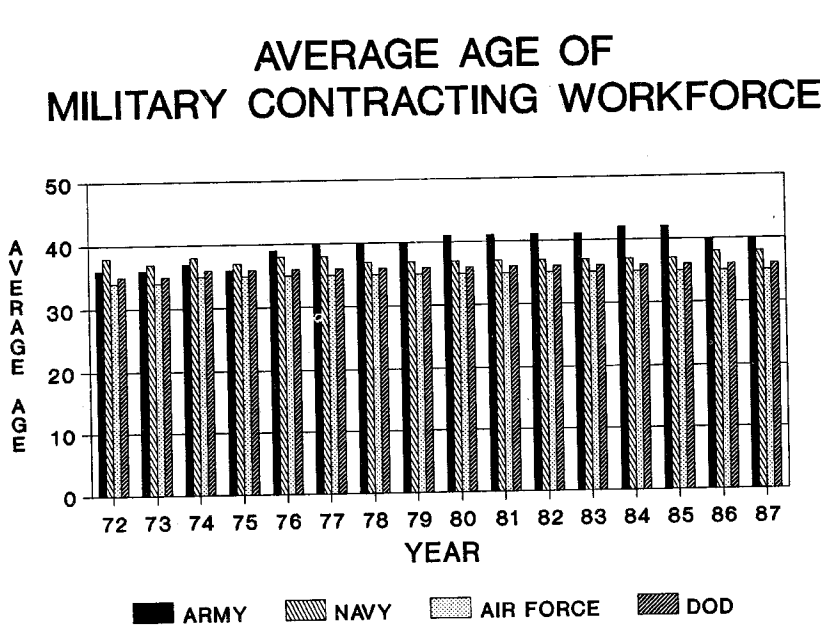
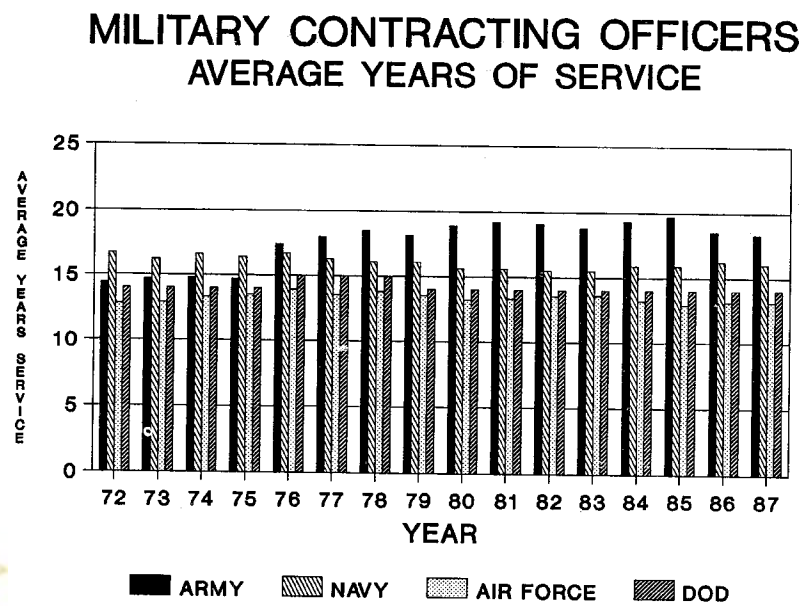


Exhibit V-23 indicates that Air Force military contracting personnel had the fewest years of service, while Army officers had the most. The differences in average age and years of service is probably attributable to the Air Force policy of allowing entry into contracting at the rank of lieutenant. Conversely, the Army does not bring officers into contracting until service year 7 or 8. Because the Air Force is bringing people into the career field at a much lower rank, the average rank and age are reduced.

EXHIBIT V-23



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A comparison of Exhibits V-24, V-25 and V-26 shows that Air Force officers tend to have more years of actual contracting experience than do officers in the contracting field in the other services. An analysis of the contracting experience of Air Force officers in contracting, which is provided by Exhibit V-24, shows that over 70 percent of all officers at the field grades (major/lieutenant colonel and colonel) have 8 or more years of experience. On the other hand, senior Air Force officers having little contracting experience who come into contracting on rated supplement tours account for only small percentages (3 percent for colonels and 2 percent for lieutenant colonels and majors) of the Air Force military contracting workforce.

EXHIBIT V-24—AIR FORCE OFFICERS CONTRACTING EXPERIENCE

[Number of officers and percentage]

Years	Col	Percent	LtC/Maj	Percent	Cpt/Lt	Percent	Total	Percent
0–2	3	3	9	2	130	15	142	10
2–4	4	3	28	6	254	29	286	19
4–6	4	3	34	7	226	26	264	18
6–8	4	3	73	15	95	11	172	11
8+	105	88	359	70	161	19	625	42

The average Air Force Contracting and Manufacturing colonel had less than 15 years of contracting experience, with the exception of the approximately 5 percent assigned to the Secretariat.

As shown by Exhibit V-25, in the case of the Army, only 23 percent of the field grade officers in contracting have 8 or more years of experience. More than 90 percent of Army captains have four or less years of experience with an average of 2.9 years. Over 50 percent of the majors and lieutenant colonels have 4 or less years; majors average 4.3 years and lieutenant colonels average 7.9 years. There are no Army colonels with less than 2 years of experience, and as a group, they average 11 years of experience.

EXHIBIT V-25—ARMY OFFICERS CONTRACTING EXPERIENCE

[Number of officers and percentage]

Years	Col.	Percent	LtC/Maj.	Percent	Cpt/Lt.	Percent	Total	Percent
0-2	0	0	43	23	73	62	116	34
2-4	1	2	57	30	37	31	95	28
4-6	3	9	40	21	7	6	50	15
6-8	8	23	20	11	1	1	29	8
8+	23	66	29	15	0	0	52	15

The Navy had contracting experience data only for officers assigned to three of its Systems Commands: NAVSEA, NAVAIR, and SPAWAR. Developed from this limited data, Exhibit V-26 provides a breakout of the contracting experience of Navy officers in contracting. As indicated, senior Navy officers all had more than 8 years of contracting experience, with Navy captains in contracting averaging 17 years of contracting experience. At the other end of the spectrum, junior officers predominately had 2 or less years of contracting experience.

EXHIBIT V-26—NAVY OFFICERS CONTRACTING EXPERIENCE

[Number of officers and percentage]

Years	Cpt.	Percent	Cdr/LCdr	Percent	Lt/Lt(jg)	Percent	Total	Percent
0-2	0	0	4	20	9	82	13	34
2-4	0	0	3	15	1	9	4	11
4-6	0	0	5	25	1	9	6	16
6-8	0	0	2	10	0	0	2	5
8+	7	100	6	30	0	0	13	34

Military Contracting Personnel Assignments. Exhibit V-27 compares the percent of officers in contracting assigned to acquisition and non-acquisition commands in each service, based on the criteria developed by DMDC. As of September 1988, 54 percent of Air Force officers in contracting, about half the Navy officers, and slightly less than half of Army officers in contracting were assigned to acquisition commands. In the Army and Navy between 1985 and 1988, there was a shift of military officers in contracting from acquisition to non-acquisition commands; while in the Air Force, the shift resulted in an increase in the proportion of military officers in contracting assigned to acquisition commands.

EXHIBIT V-27—MILITARY OFFICER ASSIGNMENTS IN CONTRACTING BY SERVICE

[In percent]

Command type	1985		1988	
	Acquisition	Non-acquisition	Acquisition	Non-acquisition
Army	54	46	49	51
Navy	55	45	50	50
Air Force	52	48	54	46

Exhibit V-28 shows the distribution of military officers in contracting within each service, by specialty area within the contracting career field, and by assignment to acquisition or non-acquisition commands.

EXHIBIT V-28—ARMY

Code	Title	AMC	Other	Acquisition total	Non-acquisition	Total
97A	Contracting and Industrial Management Officer (97A)	70	12	82	142	224
97B	Contracts Management Office	91	0	91	67	158
97C	Industrial Management off.	37	0	37	7	44
	Total	198	12	210	216	426

NAVY

Code	Title	NAVAIR	NAVSUP	NAVSEA	SPAWAR	Acquisition total	Non-acquisition	Total
1476	Proc mgt off	10	10	9	6	35	20	55
1480	Proc cont off	26	49	17	3	95	57	152
1485	Admn cont off	10	2	13	0	25	78	103
6708	Wpn proc off	0	1	0	0	1	1	2
6914	Nav plant rep	6	1	5	4	16	12	28
7330	Eng materiel	0	0	0	0	0	1	1
7445	Prod eng off	0	0	4	0	4	5	9
7450	Shop prod off	1	0	0	0	1	6	7
	Total	53	63	48	13	177	180	357

AIR FORCE

Code	Title	AFLC	AFSC	Acquisition total	Non-acquisition	Total
6516	Acq cont/mfg staff off	47	191	238	212	450
6524	Prod/mfg	7	81	88	25	113
6534	Acq cont off	72	282	354	374	728
6544	Mfg engineer	1	18	19	2	21
6596	Acq cont/mfg director	16	45	61	32	93
	Total	143	617	760	645	1405

It should be noted these numbers reflect officers assigned within the respective Services and does not include officers on joint assignments, such as the Defense Logistics Agency.

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Combined Civilian and Military Contracting Workforce Comparisons

Size. Exhibit V-29 provides a breakout of civilian and military personnel in contracting for each service and DLA. As previously discussed, the contracting workforce is largely civilian. Additionally, the relative proportions of civilians among the services and DLA has been very stable, even though there have been large increases in the size of the total contracting workforce. Further discussion of the civilian-military mix of contracting personnel is presented in Chapter VIII.

EXHIBIT V-29—COMBINED CIVILIAN AND MILITARY OFFICER CONTRACTING WORKFORCE

	1972	1975	1980	1985	1987
Army:					
Civilian	3759	3363	3960	5828	6299
Officer	440	455	148	75	105
Navy:					
Civilian	2122	2230	2586	4052	4821
Officer	498	428	369	382	412
Air Force:					
Civilian	3525	3601	4161	6170	6156
Officer	1408	1367	1396	1564	1570
DLA:					
Civilian	2984	3096	3194	4566	4826

The Air Force has historically had the largest combined military and civilian contracting workforce, with the latest figures showing 7,726 contracting personnel in the Air Force (32 percent), 6,404 in the Army (26 percent), 5,233 in the Navy (22 percent), and 4,826 in DLA (20 percent). As shown in Exhibit V-30, when the 1,680 Air Force enlisted contracting personnel are included, the total Air Force proportion of the DOD contracting workforce shifts from 32 to 35 percent.

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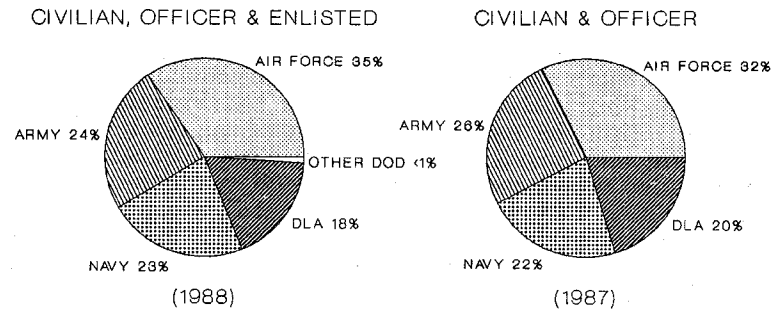
TOTAL DOD CONTRACTING WORKFORCE



MANAGEMENT OF ARMY CONTRACTING PERSONNEL

As discussed above, the Army has both military and civilian contracting personnel. While the latter constitutes a significantly larger portion of the workforce, military officers have important positions in the Army contracting function.

Army Military Career Program (Contracting)

The concept of functional proponency, previously discussed in Chapter III, is applicable to the contracting career field. Equally a propos is the Army personnel concept of dual and single tracking.

The military Functional Area 97 Career Field encompasses the Contracting and Industrial Management career field. Officers and positions associated with the 97 Functional Area are classified under one of three separate areas of concentration: Contracting and Industrial Management Officer (97A), Contracts Management Officer (97B), and Industrial Management Officer (97C). At the apex is the Contracting and Industrial Management Officer, who is responsible for overall development, implementation, management, direction and control of contracting programs and functions. The Contracts Management Officer is responsible for carrying out the full range of contracting actions, such as pre- and post-award procedures, and is targeted to be a contracting officer. The Industrial Management Officer is responsible for applying industrial, manufacturing, and production technical expertise within the contracting function. The Army is presently planning to consolidate the three separate 97 skill identifiers into one capstone 97 skill identifier.

Management

The Functional Chief for the contracting program is the Assistant Secretary of the Army (Research, Development, and Acquisition), who is also the Service Acquisition Executive for acquisition management and the Service Procurement Executive for contracting matters. This management structure is depicted in Exhibit V-31. The ASA (RDA) has appointed the Director for Contracting, Office of the Deputy Assistant Secretary (Procurement)—a general officer—as the Proponent for the FA 97 career field. At the same time, a Senior Executive Service civilian was appointed as the Functional Chief's Representative for the civilian contracting career field. This is the only Proponency and Functional Chief's delegation within the Assistant Secretary of the Army (Research, Development and Acquisition) office. All other acquisition-related functional and proponency delegations, such as for the MAM program, have been made to the Army Materiel Command. Like other officer career programs, the FA97 career field is managed within the overall framework of the Army Officer Personnel Management System (OPMS).

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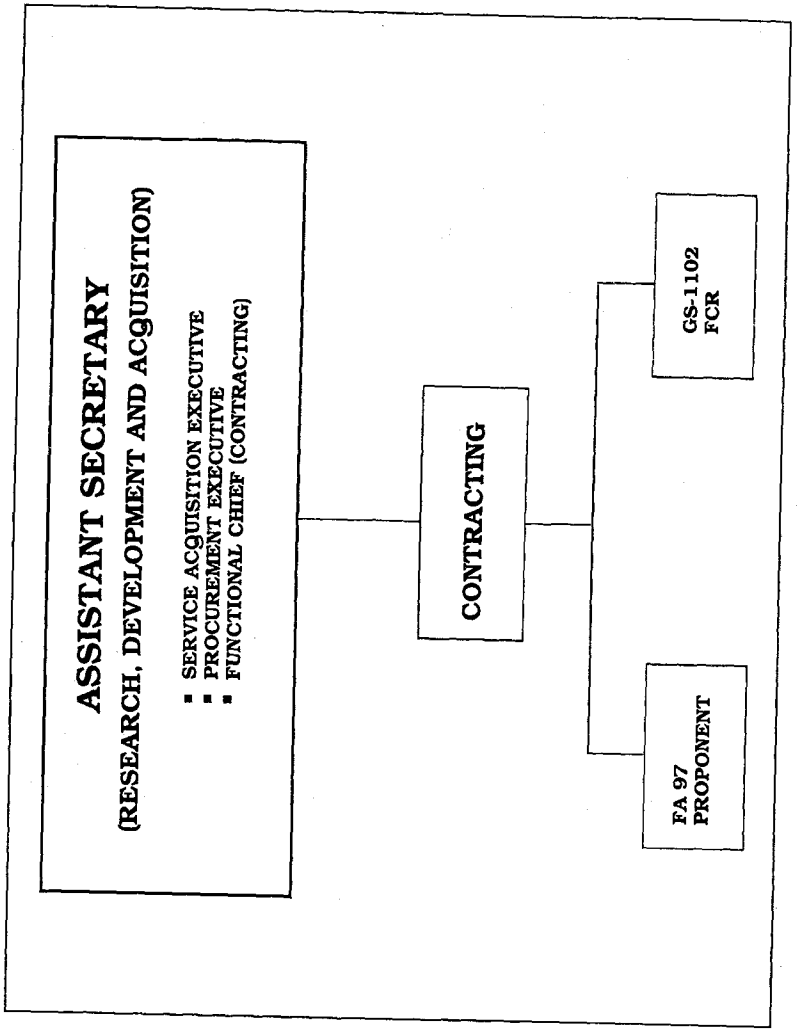
EXHIBIT V-31



Career Path

DA Pamphlet 600-3, Chapter 97 establishes standards and the career path. The FA97 is not aligned with any one branch of the Army. In general, officers will not be assigned to FA97 until they have completed basic branch qualification; consequently, Army officers normally enter the contracting career field at about year 7 or 8 of commissioned service. However, the Army is currently moving the Functional Area 97 designation to year 5 of active commissioned service.

Since 1985, officers have been allowed to follow a "single" or "dual" career track. Officers on a dual track may be assigned to alternating positions between their Branch and FA97, whereas the single track officer will only receive FA97 assignments. Single tracking is voluntary and requires an officer to have completed at least one tour in an FA 97 assignment. A PERSCOM selection board, which includes an FA 97 representative, meets annually to consider officers who have applied for single tracking. Most Army officers continue to follow a "dual track."

Under the new concept, the typical single track career path for FA 97 officers is shown at Exhibit V-32. Officers will serve in their basic branch through year 5 rather than year 7. In year 6 selected officers will begin their first FA 97 assignment rather than year 8. They are required to complete the Management of Defense Acquisition Contracts (Basic) course prior to their first assignment in contracting. Exhibit V-33 indicates the typical dual track career path. In this case, the dual track officer would receive an operational assignment at the 11 year career mark after 5 years of contracting experience, whereas such an operational assignment would be optional for the single track officer. The dual track officer may receive an operational or contracting command assignment about year 18 while a single track officer would only receive a contracting command assignment.

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EXHIBIT V-32

CAREER PATH FOR FA97 OFFICERS IN SINGLE TRACK

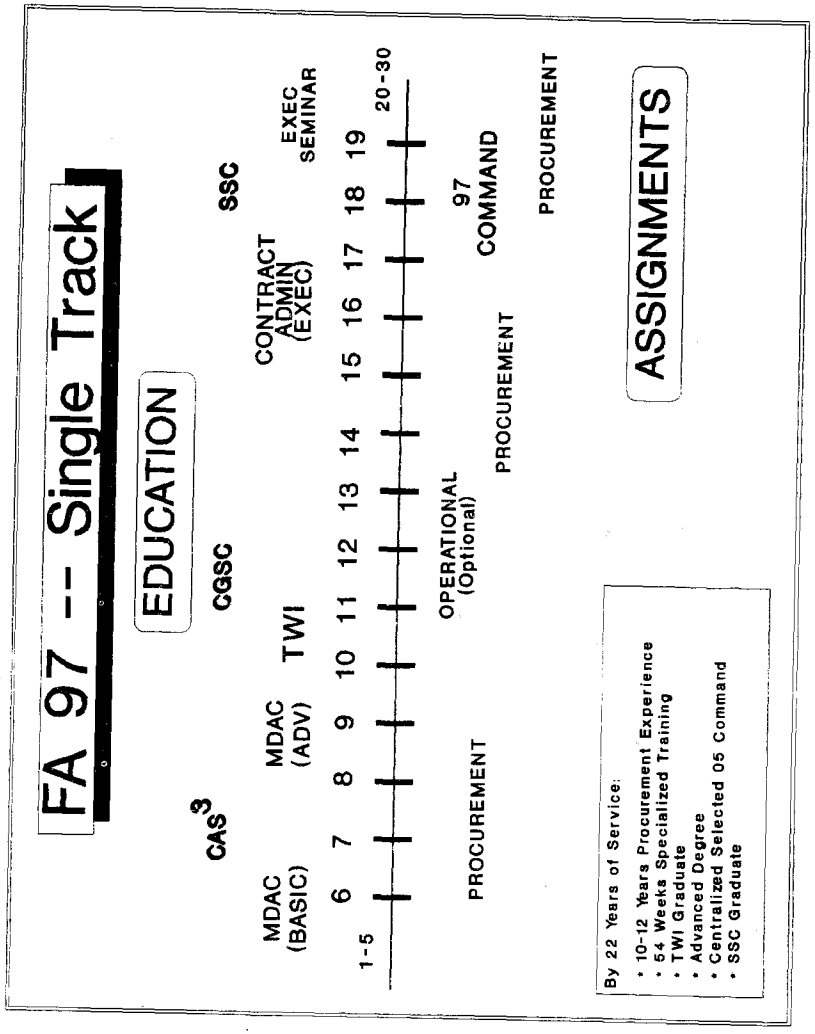

EXHIBIT V-33

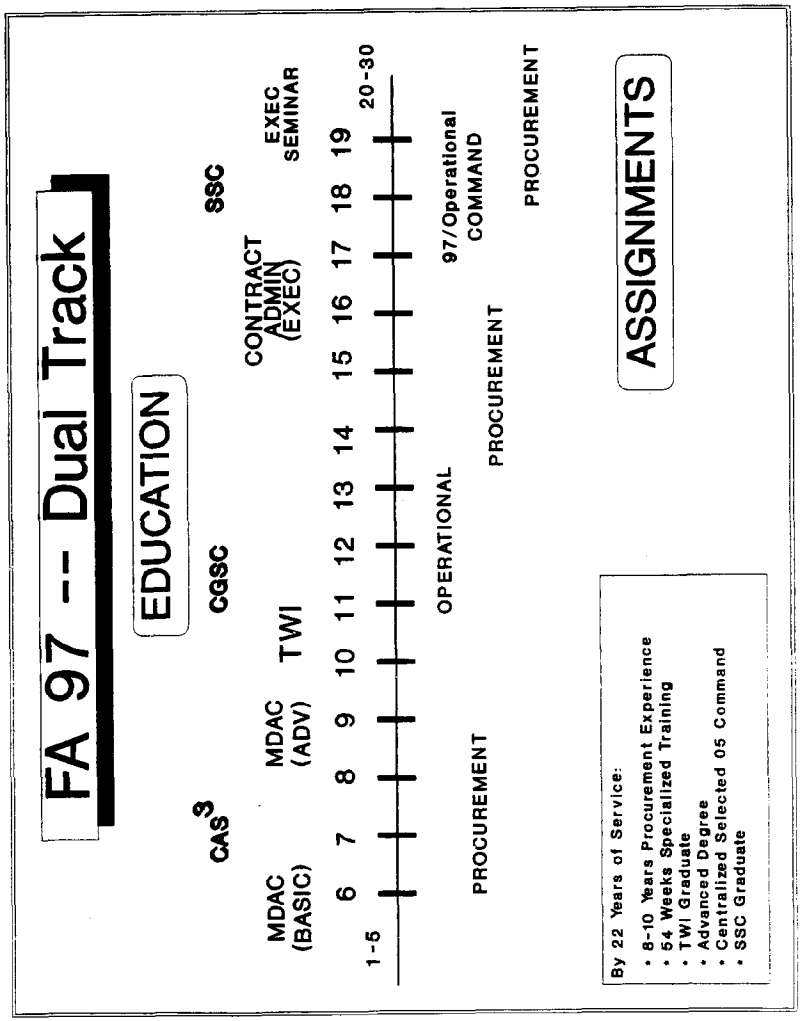

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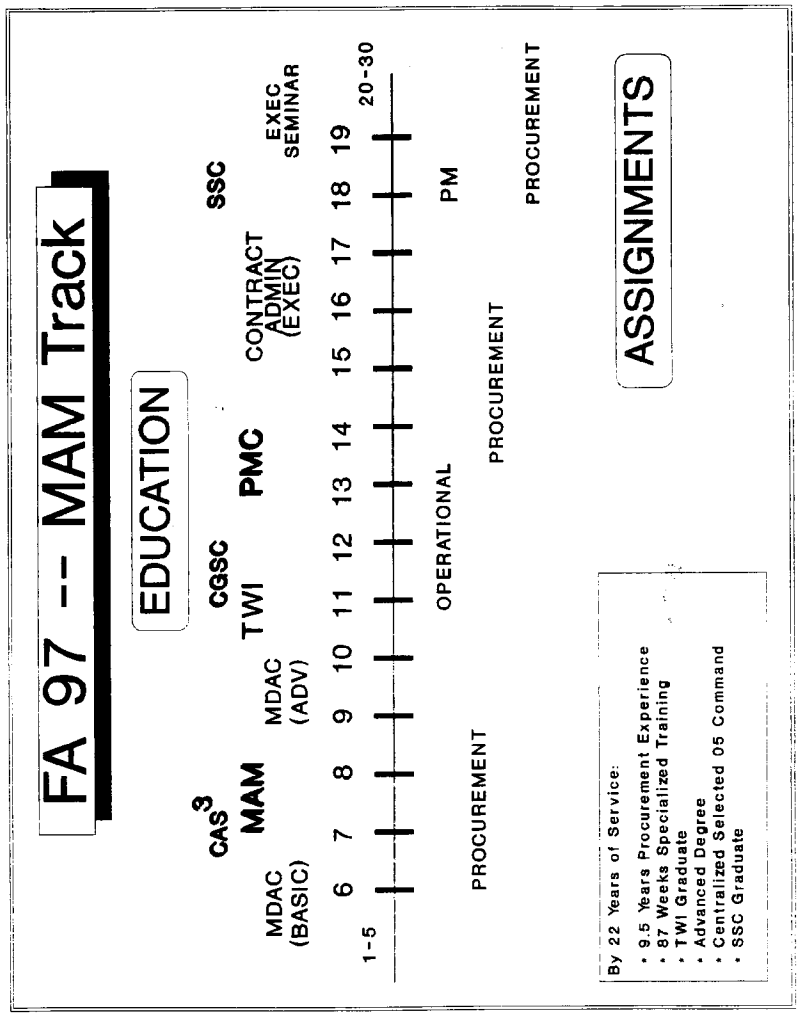
Exhibit V-34 portrays the FA 97-MAM track. In this case the officer would enter the Materiel Acquisition Management (MAM) program (which is discussed further in Chapter VI) during the initial contracting assignment. Like the dual track career path, the officer would be assigned to an operational unit about year 11. However, unlike the single and dual tracked officers, MAM participants would follow the operational assignment by attendance in the Program Management Course before returning to a contracting assignment. About year 18, participating officers would expect assignment as a Program Manager. Chapter 97 of the Career Program guidance also contains a number of recommended courses, some of which will be mandatory for officers under DOD 5000.52-M. As a result, the Army has recently extended these mandatory requirements to all officers in FA 97.

EXHIBIT V-34



CAREER PATH FOR FA97 OFFICERS IN MAM PROGRAM

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There is a one-year Training With Industry (TWI) program for officers entering the FA 97 career field. Consisting of three parts, officers new to the career field are assigned for one year to an industrial firm on a work-study program, which includes prerequisite courses. At the end of the program, these officers receive a follow-on assignment in FA 97 utilizing the new skills they have acquired. The standard Training With Industry program consists of assignment to a firm. TWI participants become familiar with industry's organizational structure, managerial methods and internal procedures. They acquire firsthand knowledge of financial operations, engineering processes, production, subcontractor management, and quality control. They are able to acquire insight into the contractor's perspective of doing business with the government. The second type of TWI is with the Defense Contract Audit Agency (DCAA). In this case, the officer will be assigned to work and train in a DCAA office within a contractor's plant to acquire an in-depth knowledge of the auditing process. The last type is TWI with the Administrative Contracting Officer (ACO). In this case, the officer would be assigned to work for an ACO in a DCASPRO and be trained in administration of a high value Army program. The Army Materiel Command Deputy Chief of Staff for Procurement and Production has been acting as the Army's Executive Agent in administration of the TWI program. Currently, there are 21 participating companies. The quotas for contracting personnel for Academic Year 1988–1989 were 26 and are 41 for 1989–1990.

Under revisions to the 97 career path discussed above, officers would begin their TWI assignment after entry into contracting rather than under the current concept where TWI introduces the officer to contracting. Army policy also encourages FA97 officers to participate in the MAM program. Under the existing MAM program, 300—or more than 50 percent—positions were coded to require a MAM qualified individual. Under the restructured MAM program, there will only be 31 critical MAM (4Z) positions.

Program Scope

Of the 1,574 officers currently holding the FA97 identification, only 103 (less than 7%) are "single-tracked". A large majority may move back and forth between contracting and their basic branch based on the needs of their branch. The distribution of FA97 officers to positions and tracks is depicted on Exhibit V-35. The percent column indicates the relative percentage of single track officers to dual track at various ranks.

EXHIBIT V-35—INVENTORY OF FA97 OFFICERS

Authorized		Current Inventory			
Rank	Positions	Dual Track	Single Track	Percent	Total
0-3	161	793	4	>1	797
0-4	153	411	50	11	461
0-5	157	210	48	19	258
0-6	66	57	1	2	58
Total	539	1,471	103	7	1,574

When both dual and single tracks are included, there is a sufficient inventory of FA 97 officers to man the authorized positions, except for the grade of colonel.

Over 70 percent of all FA97 officers are assigned to the centralized procurement organizations, when one includes both Army Materiel Command and the Defense Logistics Agency. The distribution of FA97 authorizations is shown in Exhibit V–36.

EXHIBIT V–36—DISTRIBUTION OF FA97 OFFICER POSITIONS

Activity	Authorization	Percent
AMC	266	49
Army staff	33	6
FORSCOM	23	4
TRADOC	13	2
Europe	14	3
Korea	5	1
DLA	128	24
Joint	15	3
Other	42	8
Total	539	100

In addition to the approximately 1600 FA97 officers in the Active Army, there are 649 FA97 officers in the Army Reserve and Army National Guard. Thus, the Reserve Component constitutes about one-third of the total Army officers in contracting. The distribution of the 203 Army reserve officers in contracting is shown on Exhibit V–37.

EXHIBIT V–37—DISTRIBUTION OF RESERVE OFFICERS

	Captain	Major	Lieutenant Colonel	Total
Troop program unit	3	1		4
Individual mobilization augmentee	16	93	79	188
Individual ready reserve	1	7	3	11
Total	20	101	82	203

As depicted by Exhibit V–38, there are also 446 Army National Guard contracting personnel.

EXHIBIT V–38—DISTRIBUTION OF NATIONAL GUARD OFFICERS

Army National Guard technicians	371
Active guard	72
Army civilians	2
Regular Army	1

Reserve training and development is programmed and managed by the U.S. Army Reserve Personnel Center in St. Louis, Missouri. The National Guard Bureau manages the career development and training of both Army and Air Force Guard personnel. Implementing guidance to DOD Directive 5000.52 (Defense Acquisition Education and Training Program) has not been issued to either the Guard or Reserve.

Personnel Management of Military Contracting Personnel

Assignments

The officer career management system is centrally managed through the Army Personnel Command, especially in terms of assignments. The career program Proponent provides technical input to PERSCOM and communicates directly with officers on career program developments. Career development and training of FA97 officers is a mixture of individual career planning along with the individual's commander, director, and the career program manager at PERSCOM. The individual Major Commands (MACOMs) retain overall responsibility for assuring officers receive necessary training.

Promotions

Promotions are centrally managed and selection floors are established at the lieutenant colonel and colonel rank. FA97 officers compete for promotion with all other Army officers except for the professional career fields—medical doctors, chaplains, and lawyers. Data available for officers in the 97 career field, either single or dual tracked, indicates that colonels and lieutenant colonels in the 97 career field are very competitive vis-a-vis other Army officers.

EXHIBIT V–39—COMPARATIVE PROMOTION RATES

[In percent]

Fiscal year	Colonel		Lieutenant Colonel	
	FA97	Army	FA97	Army
1984	59.3	48.9	77.0	70.9
1985	62.8	53.4	82.8	76.4
1986	66.6	51.3	(1)	(1)
1987	61.2	45.0	64.5	69.5
1988	46.6	39.6	69.5	64.5

[1] No board.

Army Civilian Career Program (Contracting)

Program guidance for the contracting career field is found in Chapter 14, AR 690–950, written in 1967 and currently under revision. The Army is presently developing a new career program for its contracting civilians, similar in some respects to the military program. The main difference is that the civilian program is largely decentralized in operation. Like its counterpart for the military, the U.S. Army Personnel Command is responsible for the centralized aspects of career program management.

Management

The Director of Civilian Personnel designates the career program Functional Chief, in this case the Assistant Secretary of the Army (Research, Development and Acquisition). The cognizant Functional

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Chief's Representative for contracting civilians is the Deputy Director, Army Contracting Support Agency.

To assist the Functional Chief's Representative, a series of boards, committees and individuals are hierarchically organized from Department of Army down to installation level. At the pinnacle is the Army Departmental Career Program Policy Committee, on which the Functional Chief's Representative serves. There are a series of functional boards at various Army levels to support the career program. Membership consists of the Functional Chief, the Functional Chief's Representative or designated representative, a personnel representative from the Civilian Personnel Central Referral Office and key personnel from Department of Army, Major Commands (MACOMs) and installation levels. The task of these boards is to help implement the career program.

Career Path

The Army career path for Contracting and Acquisition (C&A) civilians is found in the Army Civilian Training, Education and Development System (ACTEDS) enclosed as Appendix V-1. ACTEDS is a formal, competency-based system that requires the identification of critical tasks and associated knowledge, skills and abilities through a detailed job analysis at each grade level.

Program Scope

There are approximately 9,757 Army civilians working in the occupational series as depicted in Exhibit V-40.

EXHIBIT V-40—ARMY CIVILIAN WORKFORCE

Title	Series	Number	Percent
General business	GS-1101	293	3
Contracting	GS-1102	5,589	57
Property	GS-1103	136	1
Industrial specialist	GS-1150	493	5
Purchasing agent	GS-1105	1,140	12
Procurement clerk	GS-1106	2,106	22
	Total	9,757	100

The GS-1105 and GS-1106 series are clerical and administrative support and small purchase buying series. When considering only the technical or professional series, the contracting (GS-1102) series constitutes 86 percent of the total civilian workforce. For career program purposes, the Army categorizes its workforce into four levels: Intern (GS-4/7), Specialist (GS-9/12), Intermediate (GS-12/GS/GM-13); and Management (GS/GM-13/15).

Personnel Management of Civilian Contracting Personnel

Recruitment

Within the Army, recruiting for civilian personnel is generally decentralized to the organizational level and is normally conducted by civilian personnel specialists at the request of the functional manager. For example, within the Army Materiel Command, recruitment and hiring is done by civilian personnelists from three field placement offices. They centrally recruit for all career programs in response to specific requests. In the case of GS-1102s, the recruiters will use the OPM register (GS-1102 examination) or on-campus recruiting, depending on the desires of local management. The stated emphasis within Army Materiel Command is on external recruiting. In the case of Training and Doctrine Command (TRADOC), recruiting is both internal and external. For internal placement, TRADOC uses a DOD-Wide Merit Promotion Announcement. Externally, TRADOC hires Outstanding Scholars via a general announcement or use of the OPM GS-1102 examination. Civilian personnel screen candidates for basic eligibility, but selections are made by functionalists after interviewing candidates. In the past, TRADOC has relied most heavily on internal recruiting, but the trend is towards Outstanding Scholars due to the positive feedback on the quality of personnel thus hired. In fiscal year 1987, 570 out of 921 new hires, 62 percent, were hired internally.

Intern Program

The Army has a large intern program with between 3,400 and 3,800 interns. In fiscal year 1987, there were 440 Contracting and Acquisition interns; 310 or 70 percent were in Army Materiel Command. The Army currently has limited information on its intern workforce. It appears, based on manually gathered data, that the Army favors internal hiring of interns. In fiscal year 1987, approximately 50 percent of central interns (authorized and funded by PERSCOM) were recruited externally. Of local interns (not funded and managed by PERSCOM), only 15 percent were hired externally. Of those hired externally, it appears most were Outstanding Scholars. The breakdown of intern hires for fiscal year 1987 is displayed in Exhibit V-41.

EXHIBIT V-41—INTERNAL VERSUS EXTERNAL HIRING

	Internal (percent)	External (percent)
Central interns	50	50
Local interns	85	15
Combined	66	34

The contracting intern program in the Army is decentralized, with operational control delegated to the MACOMS. Two examples of how these intern programs are conducted are the programs at Army Materiel Command (AMC) and TRADOC. In AMC, there is a Directorate of Intern Training (DIT) at Fort Lee. Directorate representatives travel to AMC activities to meets interns, conduct orientation courses and receive periodic feedback. The AMC Activity Career Program Manager (ACPM), who is a functionalist, works with the CPO to assure interns receive their required training. Also, the AMC Deputy Chief of Staff for Procurement receives copies of the intern performance appraisals. TRADOC conducts an annual intern workshop for its contracting interns in conjunction with its acquisition conference. There is no current feedback mech-

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anism to Army top management, that is, the Functional Chief or Functional Chief's Representative.

Assignments and Promotions

Civil service vacancies for existing or new positions are filled through the lateral reassignment of qualified individuals at the same grade or competitive promotion of the best qualified individuals. Traditionally, these personnel actions have been accomplished by the servicing Civilian Personnel Office in a decentralized mode. However, the Contracting and Acquisition career field has been an exception, utilizing the DOD-wide Automated Career Management System (ACMS) for referrals. However, with its disestablishment in 1986, the Army began to develop a new central referral system. At this time, however, the Army lacks a viable central referral system. Individuals seek their own career opportunities under local merit promotion procedures. Civilian Personnel Offices, operating under the technical direction of the Army Director of Civilian Personnel, operates the referral system.

As an interim solution, the Army Materiel Command Civilian Personnel presently operates the Department of the Army Announcement Distribution System. Army Materiel Command performs as executive agent for the Army in running this system for 15 career programs. It is a voluntary, and basically manual, system for CPOs to fill higher-level positions. The upshot is that promotions for contracting personnel is currently decentralized.

This system will be replaced by the Army Civilian Career Evaluation System (ACCES), a combination of manual operations at the local level supplemented by data processing operations at PERSCOM. Based on job analysis, ACCES is intended to measure the knowledge and abilities of registrants. The knowledge ratings are developed by personnel specialists and functional experts based on exhaustive job analysis with validation by functional Subject Matter Experts. Individuals can rate themselves independently on the various tasks in their job family. Independently, supervisors and reviewing officials will also rate them. There are no potential ratings. Individuals also describe, in narrative form, their accomplishments. These are evaluated and rated by panels of Subject Matter Experts normally at the GS-13 level. The total point distribution is presented by Exhibit V-42.

EXHIBIT V-42—WEIGHTING OF KNOWLEDGE AND ACCOMPLISHMENT

[In percent]

	Knowledge	Abilities/ accomplishments
Self	25	
Management	50	25

When vacancies occur, the selecting supervisor requisitions against the knowledge and abilities required. The local official has great latitude in deciding what skills are required and who may be considered.

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MANAGEMENT OF NAVY CONTRACTING PERSONNEL

The Navy also has both military and civilian personnel in contracting. In terms of policy guidance, the Navy has achieved, theoretically, a relatively high degree of integration of both the civilian and military workforces. The Navy's overall career program structure for military and civilian contracting personnel is found in SECNAVINST 12400.4, issued on May 9, 1986. It applies to all Navy and Marine Corps activities employing contracting and acquisition personnel and military personnel assigned to billets with procurement or business management responsibilities.

Integrated Management of Civilian and Military Personnel

The Assistant Secretary of the Navy (Shipbuilding and Logistics) is the Navy Senior Procurement Executive, and thus is responsible for the development and operation of the Navy Contracting and Acquisition Career Management Program. Responsibilities include establishment of annual procurement workforce goals and objectives, periodic evaluation to assure satisfactory progress, preparation and submission of an annual report to the Secretary of the Navy, and certification of the career program to the Secretary of the Navy pursuant to Executive Order 12352.

The Director, Contracts and Business Management, Office of the Assistant Secretary of the Navy (Shipbuilding and Logistics) established an implementing board structure on January 28, 1986. The Navy Contracting Career Management Board, formerly the Contracting and Acquisition Career Management Board, supports the Navy Senior Procurement Executive by ensuring the development, implementation, and maintenance of the career program and providing periodic review and evaluation. This Board is chaired by the Director, Contracts and Business Management, within the Office of the Assistant Secretary of the Navy (Shipbuilding and Logistics). Members include a mix of senior military and civilian procurement managers (Commanders and GM-15 respectively and above) from NAVSEA, NAVAIR, NAVFAC, SPAWAR, NAVSUP, Office of Naval Research, Commandant Marine Corps, Military Sealift Command, Strategic Systems Program Office, and Naval Telecommunications Command. There are also representatives from Deputy Chief of Naval Operations (Manpower, Personnel and Training), Deputy Chief of Naval Operations (Logistics), Consolidated Civilian Personnel Office, and Naval Civilian Personnel Center.

While this Board has theoretical responsibility for both military officers and civilians, the primary emphasis is on civilian personnel. Policies and direction of military officers is restricted by the traditional Navy officer personnel career management chain. The Board does, however, exercise influence over the career program of Supply Corps Officers in contracting and, to a lesser degree, Civil Engineering officers in NAVFAC. The Board was initially supported operationally by the Contracting and Acquisition Career Branch, in the Office of Naval Acquisition Support (ONAS), but the functions were absorbed into the Office of the Assistant Secretary of the Navy (Shipbuilding and Logistics) when ONAS was disestablished. Day-to-day oversight functions and Board support responsibilities thus repose within OASN (S&L).

Navy Military Career Program

Officers in the contracting field are assigned, trained, and promoted within the framework of the Navy military personnel management system. All officers are in the Supply Corps except for those assigned to NAVFAC.

Management

The functional career structure and personnel system are both under the cognizance of the Director of Supply Corps Personnel. Career progression is managed by assignment of subspecialty and Additional Qualification Designator (AQD) codes to these personnel. Demonstrated performers having direct contracting experience are identified by subspecialty code 1306S. Personnel acquiring a post-graduate degree in acquisition or contract management are identified by subspecialty code 1306P. Individuals are also assigned Additional Qualification Designators (AQD) 916 and 917 for having acquisition contracting and contract administration experience respectively. The inventory of specialty coded officers is monitored by the Naval Military Personnel Command.

Recently, the Chief of the Supply Corps—who has cognizance over most officers in contracting—instituted a Professional Subspecialty Forum for Acquisition/Contract Management to review both the billet and officer inventory on a biennial basis. The purpose of this review is to assess the importance of the procurement and contracting subspecialty to the Navy, to assess its health, and to determine if the inventory of such officers is sufficient to satisfy the planned needs of the Navy and provide career development potential for officers in the subspecialty.

Career Path

There is a general 1306 Model Career Path which is depicted by Exhibit V-43. Basically, officers may enter the career program as lieutenants either through the Navy Acquisition Contracting Officer (NACO) program, the DLA NACO program or a procurement-related assignment. They are generally expected to continue alternating between sea and shore duty, but they tend to specialize in acquisition jobs after entering the program. By the rank of lieutenant commander O-4, they may become contracting officers.

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EXHIBIT V-43

GENERALIZED SUPPLY CORPS CAREER PATTERN
WITH 1306 MODEL CAREER PATH

Rank	Year	Rotation	ACQUISITION JOBS
CAPT	30	CONUS/FOREIGN	COMMAND
	26	SHORE	CONTRACT POLICY
	24	CONUS	CONTRACT MANAGEMENT
	23		
	22		
	21	PME	
CDR	20	SEA/CONUS/FOREIGN	CONTRACT MANAGEMENT
	19		CONTRACT POLICY
	18	CONUS	CONTRACTING OFFICER (PCO)
	17		CONTRACT ADMIN (ACO)
	16	PME	
LCDR	15		CONTRACT MANAGEMENT
	14	SEA/CONUS/FOREIGN	CONTRACTING OFFICER (PCO)
	13	PME	CONTRACT ADMIN (ACO)
	12		
LT	11	PG/CONUS	815 or 810 program with 1306 S-code
	10		
	09	SEA/FOREIGN	
	08	SHORE	NACO PROGRAM
	07		DLA NACO PROGRAM
	06	CONUS	PROCUREMENT RELATED JOB
	05		
	04		
LTJG	03	SEA	
ENS	02		
	01	NSCS	

The Navy Acquisition Contracting Officer program is a precursor to the full-performance career path. For a number of years, this has served to develop officers for future assignment to middle and senior grade contracting management billets. The purpose of the program is to provide officers the opportunity to learn the acquisition contracting system through actual contracting work experience and formal training. Each NACO is required to work in a wide variety of contracting functions at major Navy contracting activities and to complete specified formal courses.

Program Scope

As of January 31, 1989, there were 531 Supply Corps officers with subspecialty codes 1306P or 1306S or Additional Qualification Designators 916/917. Exhibit V-44 shows the distribution of these officers by rank.

EXHIBIT V-44—INVENTORY OF OFFICERS IN CONTRACTING

Rank	Number	Percent
Flag	6	1
0-6	41	8
0-5	159	30
0-4	186	35
0-3	139	26
Total	531	100

In addition, the Navy has 32 NACO billets, most of which are in Naval Supply Systems Command (NAVSUP). Exhibit V-45 provides a distribution of these NACO billets.

EXHIBIT V-45—NAVY ACQUISITION CONTRACTING OFFICERS (NACO)

Organization	Billets
NAVAIR	5
NAVSEA	5
SPAWAR	3
Aviation Supply Office (ASO)	3
Ships Parts Control Center (SPCC)	2
3 Naval regional contracting centers (NRCC)	6
7 Naval supply centers (NSC)	7
Naval surface weapons center	1

The Navy has 156 selected reserve Supply Corps officers in the contracting career field, filling mobilization billets as indicated in Exhibit V-46.

EXHIBIT V-46—DISTRIBUTION OF NAVAL RESERVE OFFICERS

[In acquisition contracting billets]

Organization	CAPT	CDR	LCDR	LT	Total
ASO	1	3	1		5
SPCC		1	1	3	5
NRCCs	2	13	12	6	33
NSCs	1	18	13	6	38

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EXHIBIT V-46—DISTRIBUTION OF NAVAL RESERVE OFFICERS—Continued

[In acquisition contracting billets]

Organization	CAPT	CDR	LCDR	LT	Total
DLA	5	23	22	7	57
Other	5	5	4	4	18
Total	14	63	53	26	156

Personnel Management of Military Contracting Personnel

Assignments

Assignment of Supply Corps officers is centralized with responsibility for assignment of most military contracting personnel residing in the Director of Supply Corps Personnel, Naval Supply Systems Command (NAVSUP). However, the career management and assignment of Civil Engineer Corps officers to contracting officer billets within Naval Facilities Engineering Command (NAVFAC) is the responsibility of that SYSCOM. In making assignments, the needs of the billet are matched with the qualifications of individual officers, including seniority and previous contracting experience. Completion of mandatory training courses is considered part of the qualification determination. Personnel not meeting all mandatory training requirements upon assignment are normally sent to school to acquire such training, unless the skills and knowledge provided by the specific DOD mandatory course(s) have been obtained by experience, education, equivalency test, or alternate training.

Promotions

Supply Corps officers are selected for promotion among their peers and do not compete with line officers or other "non-professional" fields. Contracting subspecialists compete equally with other subspecialists within the Supply Corps based on performance and capacity for future service.

The senior Supply Corps Officer is the Chief of the Supply Corps. He designates selection board members to represent the various subspecialties to ensure that the performance of truly outstanding individuals across the broad range of business subspecialties within the Supply Corps is appropriately considered in selection for promotion. The Under Secretary of the Navy, as the Service Acquisition Executive, can express areas of concern/importance to the Secretary of the Navy for his use in preparing guidance and instructions to promotion boards. Exhibit V-47 provides comparative promotion data for captains and commanders in the contracting field compared to promotion data for all naval officers in all fields. For example, in FY90, seven 1306P officers were promoted to captain; this represented a selection rate of 64 percent of eligible 1306P commanders compared to a selection rate of 50 percent in the Supply Corps and 55 percent in the Navy overall.

EXHIBIT V-47—SUPPLY CORPS CONTRACTING PERSONNEL PROMOTIONS

FY	1306P		1306S		Supply corps		Navy	
	SEL	PCT	SEL	PCT	SEL	PCT	SEL	PCT
CAPTAIN (06) SELECTIONS								
1984	2	50	1	100	25	64	502	63
1985	4	50	1	100	36	60	525	60
1986	6	75	1	100	41	60	567	50
1987	3	60	3	150	42	55	655	57
1988	2	67	1	100	31	55	555	57
1989	4	80	2	40	32	54	474	56
1990	7	64	1	25	34	50	527	55
COMMANDER (05) SELECTIONS								
1984	8	114	4	80	78	83	1253	82
1985	10	100	7	78	87	84	1117	77
1986	14	100	7	78	100	81	1255	76
1987	9	90	3	60	97	82	1420	73
1988	8	89	11	85	104	76	1256	73
1989	6	120	0	0	29	71	998	72
1990	6	75	7	100	57	70	1310	71

As indicated, the selection rate for O-5 and O-6 for Navy officers in contracting is very favorable in comparison to the selection rate for the Supply Corps and the Navy as a whole.

Navy Civilian Career Program (Contracting)

The Navy has also established a civilian career management program pursuant to SECNAVINST 12400.4. This program seeks to emulate the recommendations of Task Group 6 by including the following elements within its career program criteria: career development and training; intern programs; contracting officer selection and appointment programs; recruitment, classification and position management; performance appraisal and award; procurement education and research; and career programs for small purchase personnel.

Management

A salient characteristic of the Navy contracting career program structure is the apparently high degree of centralized policymaking. The Navy Contracting Career Management Board (NCCMB) performs centralized policy and oversight responsibilities for the contracting career field. Its specific membership, responsibilities and functions were discussed above. The Board has formally met four times since January 1987.

Beyond this high-level Board, execution is broadly decentralized. Contracting directorates at each Systems Command (SYSCOM), supporting Consolidated Civilian Personnel Offices (CCPO), and the Director, Contracts and Business Management (CBM), Office of the Assistant Secretary of the Navy (Shipbuilding and Logistics) are all involved in providing opportunities for requisite education, experience and training. Contracting managers at the SYSCOMS and their subordinate field activities, along with support from their respective personnel offices, are responsible for assuring these career requirements are met.

At the SYSCOM level, functional personnel are assigned responsibility for career development and training. For example, at the Naval Sea Systems Command (NAVSEA) three individuals are involved full time in executing and monitoring the career programs for NAVSEA's contracting workforce. Within the Contracts and Business Management Directorate, two procurement analysts (one GM-15 and one GM-14) perform full-time policy and oversight functions for the contracting career program, including career development and training. Senior level contracting personnel also provide feedback through the Navy Contracting Career Management Board (NCCMB). Thus, the training and career development aspects of the civilian contract specialty are managed by the functional contracting community, with broad policy and oversight under the direction of the Assistant Secretary of the Navy (S&L). The civilian personnel system provides guidance and administrative support in terms of recruitment, classification and performance awards on a decentralized basis.

Career Path

Reflecting the more decentralized approach of the Navy, there is no Navy implementing career program guidance beyond SECNAV Instruction 12400.4. For civilian personnel, the provisions of DOD Directive 5000.52 of August 22, 1988 pertain, but there is no Navy career path for civilians. In line with overall decentralization, some commands have developed their own guidance. For example, at Naval Sea Systems Command (NAVSEA) more specific guidance on career ladders and full performance levels is contained in NAVSEAINST 12410.1 of March 23, 1979, entitled "Career Progression Opportunity in the Contracts Directorate" and NAVSEANOTE 12335 of April 11, 1980, entitled "NAVSEA Career Ladders and Full Performance Levels".

Program Scope

Like the other services, the Navy includes more than contracting civilian personnel within the contracting and acquisition career program. Rather, as depicted by Exhibit V-48, there are six separate occupational series supporting the contracting function. The numbers indicated are from the Navy's Office of Civilian Personnel Management database as of October 31, 1988, and represent full-time U.S. appropriated fund employees.

Exhibit V-48—NAVY CONTRACTING AND ACQUISITION CIVILIAN PERSONNEL

[Number of persons/series]

Grade	1101	1102	1103	1105	1106	1150	Total
SES	4	19	0	0	0	0	23
GS/GM-15	11	118	0	0	0	6	135
GS/GM-14	32	288	0	0	0	35	355
GS/GM-13	58	579	3	0	0	106	746
GS-12	107	1,369	40	1	0	278	1,795
GS-11	107	1,161	72	8	0	223	1,571
GS-10	8	3	0	4	0	1	16
GS-9	221	884	54	56	7	53	1,275

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Exhibit V-48—NAVY CONTRACTING AND ACQUISITION CIVILIAN PERSONNEL—Continued

[Number of persons/series]

Grade	1101	1102	1103	1105	1106	1150	Total
GS-8	17	0	0	66	10	0	93
GS-7	201	541	4	351	168	17	1,282
GS-6	26	0	0	568	268	0	862
GS-5	63	203	6	492	566	4	1,337
GS-4	24	1	0	135	748	2	908
GS-3	5	0	0	12	125	0	142
GS-2	0	0	0	1	2	0	3
GS-1	0	0	0	1	1	0	2
Demo Proj	12	160	5	51	88	5	321
Other	0	1	0	1	0	0	2
Total	896	5,327	184	1,750	1,983	728	10,868

Again, like the Army and the Air Force, the included series represent those functions integral to the contracting process. Exhibit V-49 shows the percentage of the Navy's civilian contracting workforce in each job series. As indicated, 49 percent are in the 1102 contracting job series.

EXHIBIT V-49—NAVY CONTRACTING/ACQUISITION

[Occupational series]

Series and title	Number	Percent
1101—General Business and Industrial	896	8
1102—Contracting	5,327	49
1103—Industrial Property Management	184	2
1105—Purchasing	1,750	16
1106—Procurement Clerical and Assistance	1,983	18
1150—Industrial Specialist	728	7
Total		100

Personnel Management of Civilian Contracting Personnel

Recruitment

The Navy relies on several methods of hiring including: a competitive merit promotion process, the OPM Contract Specialist register, Outstanding Scholar appointments, and reassignment of current GS-1102s. The Navy's centralized Contracting Career Intern Program (CCIP) was also given temporary direct-hire authority by the Office of Personnel Management for use in the Washington area. The greatest source of recruiting has been external as indicated on Exhibit V-50.

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EXHIBIT V-50—CCIP RECRUITING SOURCE

Source	Number	Percent
Internal	22	10
OPM register	77	35
Outstanding scholar	86	39
Other [1]	35	16

[1] The "other" category includes Veterans Readjustment Act (VRA), transfers, direct-hires, and co-op conversions.

Intern Program

The Navy's Contracting Career Intern Program (CCIP) serves as the primary pipeline of high quality personnel for the contracting workforce. As a long-term goal, the Navy plans to replace 50 percent of annual losses with CCIP graduates. On July 9, 1986, the Assistant Secretary of the Navy (Shipbuilding and Logistics) requested Secretary of Navy approval to significantly expand the CCIP. The Assistant Secretary pointed out that the Navy only had 176 contracting interns and 138 logistics interns compared to the Air Force's 360 contracting and 400 logistics interns and the Army's 440 contracting and 445 logistics interns. In August 1986, the Secretary of the Navy approved the request to increase both of these programs by 50 interns per year for the next five years. Exhibit V-51 shows this planned CCIP expansion.

EXHIBIT V-51—CCIP AUTHORIZATIONS

Fiscal Year	1974	1975	1976—1986	1987	1988	1989	1990	1991	1992
Number of interns	55	155	176	189	227	276	326	389	426

The numbers for FY87 and forward are approved targets. Exhibit V-52 shows the distribution of interns by SYSCOM for 1988 and 1989.

EXHIBIT V-52—CCIP ALLOCATIONS

Activity	Fiscal year 1988	Fiscal year 1989
NAVAIR	42	48
NAVSEA	49	55
SPAWAR	24	26
NAVSUP	62	68
NAVFAC	8	16
Marine Corps	9	10
MSC	10	10
ONR	8	10
SSPO	4	4
ADPSO	2	2
TELCOM	1	2

The Navy was unable to meet their target for FY88, receiving an allocation of 223 vice the target of 227. However, a 3 percent reduction was not deleterious as the Navy was only able to bring on-

board 195 interns as of September 30, 1988, an 11 percent shortfall due in part to budgetary difficulties. Only 4 of the 11 subordinate activities were able to hire to their authorized allocations.

The Navy took aggressive action to promote recruitment of Navy contracting interns for its CCIP in FY 89. The Navy restructured billet allocation procedures to encourage competition among claimants, sought and obtained critical funding approval from the Service Acquisition Executive, and held numerous senior-level claimant meetings to review hiring procedures and resolve recruitment problems. Based on these initiatives, the Navy achieved approximately a 40 percent growth in its CCIP during FY 89, representing the largest annual growth in the 16-year history of the program. By June 30 there were 253 persons on board.

Recruitment and selection of interns under the Navy's Contracting Career Intern Program (CCIP) are centrally managed by the Navy Career Management Center (CMC) in Mechanicsburg, Pennsylvania, with participation from the recipient Systems Command or field contracting activity. The Director of Contracts and Business Management within the Office of the Assistant Secretary (S&L) provides oversight for the CCIP.

Intern entry grades are either GS-5 or GS-7 and program length is either 2 or 3 years with target grades varying from GS-9 to GS-12. For the CCIP in the Washington, D.C. area, however, the entry grade is normally GS-7 and is a 3 year program with a target grade of GS-12. As of February 6, 1989, the Navy had 220 interns in the CCIP; 92 percent of these interns had a college degree. Seventy-four percent were assigned to central or systems contracting billets, while the remainder were assigned to local or station contracting positions.

Navy officials noted that graduates of the intern program are generally higher quality individuals who accept greater responsibilities and perform their duties in a more competent and professional manner. This improved quality is a direct result of the stringent selection qualifications for entry into the program and intensified formal classroom and on-the-job training received during the two to three year internship. Intern performance is closely monitored, evaluated, and documented, assuring that graduate interns are fully equipped to perform the duties required by their target positions. The Career Management Center also encourages interns to attend, and provides funding for, job-related, after-duty college and graduate level coursework.

Although the Navy does not have any Navy-wide retention data with respect to CCIP interns, limited data is available at the Systems Command level. For example, of the 134 CCIP interns hired at NAVSEA Headquarters since 1974, about 46 percent have been retained and of the 37 hired since October 1984, about 81 percent are still employed at NAVSEA.

Assignments and Promotions

Since the disestablishment of the DOD Automated Career Management System, the Navy has gone to a decentralized approach for assigning and promoting civilian personnel. Recruitment and selection of civilian contracting personnel are generally handled on a local basis under a competitive merit promotion process. Positions above the journeyman level normally require some level of contracting officer authority. Thus, an individual's ability to perform contracting officer responsibilities is often a basis for their evaluations and promotion.

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MANAGEMENT OF AIR FORCE CONTRACTING PERSONNEL

The Air Force has established training and development models and a career program development structure for both military and civilian contracting personnel. The Air Force also has a capstone regulation, Air Force Regulation 70-2, "Air Force Contracting, Manufacturing, and Quality Assurance Professional Development Program." This regulation was issued under the auspices of the Director of Contracting and Manufacturing Policy within the Office of the Assistant Secretary (Acquisition) in March 1978 and has been under extensive revision for some time. Although the current regulation prescribes policies and procedures relative to professional development of military and civilian contracting personnel, it is outdated and will be replaced. The intention of the new regulation is to implement DODD 5000.52 (formerly DOD 5000.48) and DOD 5000.52-M—when published—and supplement Air Force Regulation 40-110, Vol. X for civilian personnel.

The Air Force is unique among the Services in that it has both an officer and an enlisted workforce. There are a small number of enlisted personnel in the Marine Corps assigned to contracting organizations and functions. It tends to develop both in their respective areas on contracting career paths or tracks specified in AFR 36-1 and AFR 36-23 for officers, AFR 39-1 for enlisted personnel, and DODD 5000.52 for both.

Air Force Military Career Program—Officers

The Air Force has a long record of a professional contracting military workforce. Air Force officers in the contracting and manufacturing career field have a well-established career program within the overall framework of the Air Force program for officer professional development.

The Director of Contracting and Manufacturing Policy, Assistant Secretary of the Air Force (Acquisition) provides career management guidance to the military contracting and manufacturing career field. For enlisted personnel, this individual is assisted by a senior enlisted adviser (E-9) for the contracting function.

Management

Centralized career management responsibility resides primarily with the Air Force Military Personnel Center, just as it does with other Air Force military specialties. Like the leadership in other policy functional career fields, the Director of Contracting and Manufacturing can influence the personnel system, especially in the area of assignments, and there is a high degree of coordination between personnel and functional management. Conversely, there is no established formal contracting career board structure or support organization outside of the traditional Air Force organization structure.

Career Path

The Contracting and Manufacturing career field (AFSC 65XX) includes planning, implementing, and managing the acquisition of supplies, services, construction, and systems. The major functional areas are contracting (to include central/systems, operational or base-level, and research and development); manufacturing (including quality assurance); and manufacturing engineering. There are five different Air Force Specialty Codes (AFSCs) within the career field.

The Manufacturing Officer series (AFSC 6524) covers the ranks O-1 through O-4 and includes four broad functions: evaluation of contractor manufacturing ability; monitoring production processes to contract compliance; evaluation/monitoring contractor quality assurance; and, evaluation/monitoring of contractor property administration systems. Most of these positions are located in Air Force Systems Command, Air Force Logistics Command, and the Defense Logistics Agency.

The Acquisition Contracting Officer series (AFSC 6534), which encompasses the ranks O-1 through O-4, covers all aspects of the pre- and post-award functions of contracting. This specialty is found in all contracting organizations.

The Manufacturing Engineering series (AFSC 6544) also covers the ranks of O-1 through O-4. These officers are located primarily in Air Force Systems Command and evaluate/monitor contractors' manufacturing techniques and performance. An industrial engineering degree is desired for this specialty.

The Acquisition Contracting and Manufacturing Staff Officer series (AFSC 6516) covers the ranks O-4 through O-6. This specialty encompasses the functions of the lower-tiered 6524, 6534, and 6544 specialties. Officers in this specialty are required to develop and coordinate contracting, manufacturing, and quality assurance policy and procedures.

The Acquisition Contracting and Manufacturing Director series (AFSC 6596) encompasses primarily the rank of O-6 with some key O-5 positions. Only officers assigned to key positions designated by the Director of Contracting and Manufacturing Policy, as requiring extensive knowledge and experience in acquisition contracting, manufacturing, and quality assurance are eligible for award of this AFSC. The relationship of these specialties is shown in Exhibit V-53. AFSC 6596 is the capstone specialty, encompassing all the functions of the 6516, 6524, 6534, and 6544 specialties. Officers in this specialty participate at the highest levels in policy formulation and in managing "operational (base level) contracting, systems acquisition, central contracting, logistics support, contract management, manufacturing, quality assurance, and related functions."

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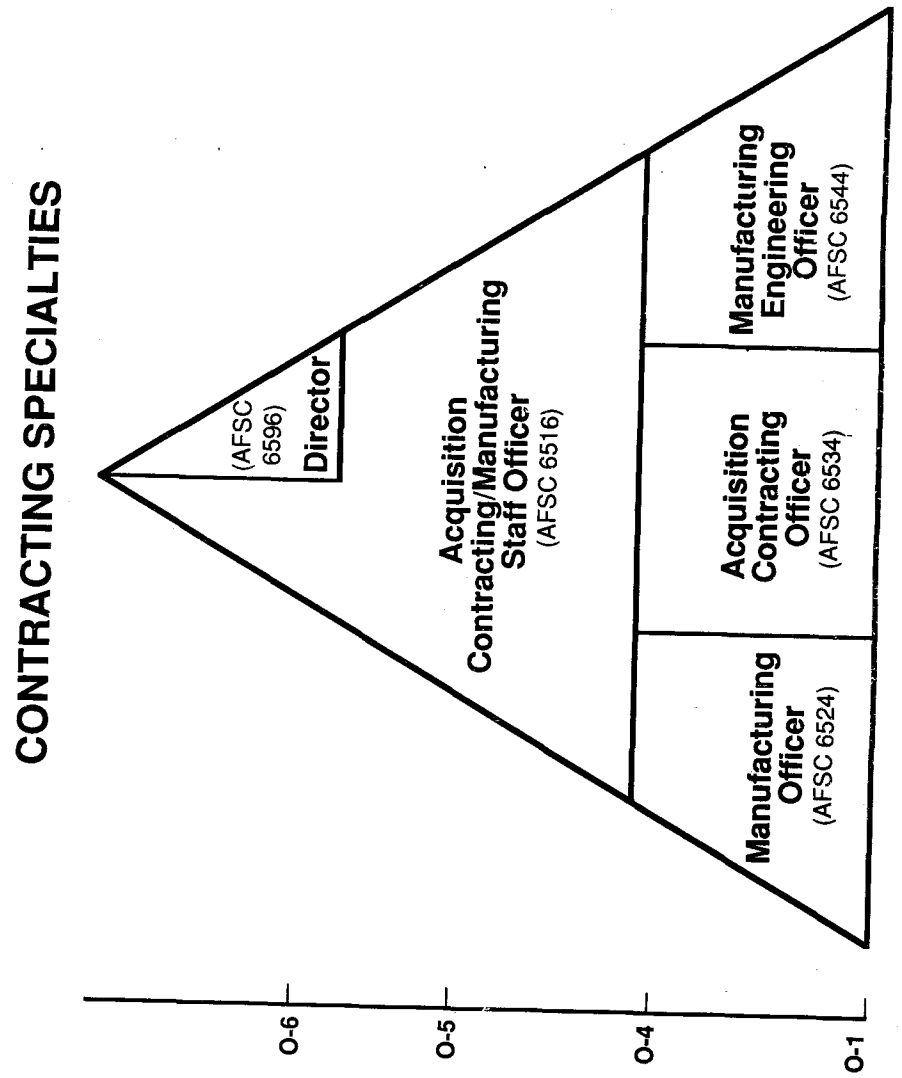
EXHIBIT V-53



Air Force Regulation 36-1, Attachment 17, "Acquisition Contracting/Manufacturing Utilization Field (65)," dated January 1, 1984 covers each specialty within the Acquisition Contracting and Manufacturing Utilization Field and provides a brief description of the duties, responsibilities, and specialty qualifications for each AFSC.

Military career planning guidance from a policy perspective is formulated by Headquarters, AFMPC and Headquarters, Air Force. Most personnel actions of a career nature are centralized. Technical contracting training management tends to be decentralized through the Air Force's automated Pipeline Management System. There is also a very close relationship between the functional manager—the Air Force Director of Contracting and Manufacturing Policy—and AFMPC—the military personnel manager. Changes to the personnel system and officer professional development system are closely coordinated between the two organizations.

AFR 36-23 "Officer Professional Development," posits the Air Force philosophy of professional officer development, stating that it occurs at every grade level and echelon with the goal of professionally preparing officers to assume the responsibilities that go with a particular grade. It begins with concentration on primary job/technical expertise, broadens throughout the career, culminating in a generalist with both depth and breadth of experience. AFR 36-1 sets out the education and training requirements for entry into the 65XX AFSC and identifies requirements that should be fulfilled prior to upgrading/promotion within the AFSC. Each of the five specialties within the 65XX career group have distinct duties and responsibilities. Specialty qualifications, consisting of desired/required knowledge, education, experience, and training are enunciated. Chapter 27 of AFR 36-23 provides a professional development road-map for the 65XX career field and is encapsulated in a time-grade chart at Exhibit V-54.

This Exhibit deviates from AFR 30-23 in that it includes the DOD mandatory courses for contracting military personnel set forth in DODD 5000.52 and the proposed DOD 5000.52-M (Draft). The Air Force made these courses mandatory for its military personnel in April 1989.

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EXHIBIT V-54

MILITARY DEVELOPMENT PLAN

AIR FORCE SPECIALTY CODE 65XX, CONTRACTING AND MANUFACTURING

Year	Grade	Primary Duties	Alternate Duties	PME	Training	Education
29	COL	AFSC 6596 Director of Contracts Director of Manufacturing (SPO) AFPRO/DCASPRO/DCASR CMDRS DIV Chief, Air Logistics Centers AFSC 6516 Acquisition Contracting or Manufacturing Staff Officer	SAF Staff DLA Staff MAJCOM Staff JOINT Staff	SSS	Maj Sys Acq for Contracting Def Acq & Executive Seminar Personnel Mng of Def Acq Contracts (Executive) Contract Admin (Executive) Advanced Contract Pricing Def Acq Quality Ass Mng	MAS/AFIT
21	LTC	AFSC 6596 Director of Contracts (SPO) Director of Manufacturing (SPO) AFPRO Commanders AFSC 6516 Director of Contracts (SPO) Director of Manufacturing (SPO) SPO/ALC DIV Chief DCASPRO/DCASMA/AFCMC DET CMDRS Chief, Base Cont Div	SAF Staff DLA Staff MAJCOM Staff JOINT Staff	SSS SSS	Same as above Same as above SENIOR LEVEL BEGINS Gov't Contract Law Quant Tech Cost & Pr Analy Adv Contract Administration Def Cont for Info Resources Adv Property Admin Production Management II Quality Assurance Mng I Defense Small Purchases (Adv)	MAS/AFIT
16	MAJ	AFSC 65/66524/6534/6544 SPO/AFPRO/DLA BR/DIV Chief Chief, Base Contracting Div (BCO) Contracting Officer SPO/ALC Contracts Managers SPO/ALC Detachment CMDRS Manufacturing Manager SPO/ALC/AFPRO Manufacturing Engineer SPO/AFPRO	SAF Staff DLA Staff MAJCOM Staff	ISS		MAS/AFIT
11	CAPT	AFSC 6524/6534/6544 SPO/AFPRO/ALC/DLA Contracting Officer SPO/AFPRO/ALC/DLA Contract Negotiator SPO/A-PRO/ALC/DLA BR/DIV Chief Chief, Base Contracting Div (BCO) Cont/Manuf Officer SPO/ALC/AFPRO/DLA Cont/Manuf Manager SPO/AFPRO/ALC/DLA/BASE Manufacturing Engineer SPO/AFPRO Detachment CMDR	MAJCOM Staff DLA Staff	SOS	INTERMEDIATE LEVEL BEGINS Mng of Def Acq Contracts (Basic) Principles of Cont Pricing Industrial Property Admin Def Cont Property Admin Production Mng I Defense Quality Assurance Defense Small Purchases	MAS/AFIT
5	1LT	SPO/AFPRO/ALC/DLA/BASE Buyer/Manuf/Admin				
0	2LT	SPO/AFPRO/ALC/DLA/BASE Buyer/Manuf/Admin			ENTRY LEVEL TRAINING	BAC.DEG

There are four phases in career development: initial development phase (years 1 through 4), intermediate development phase (years 5 through 11), advanced development phase (years 12 through 16), and staff phase (years 17 through 21).

In the first phase, officers will gain in-depth knowledge of the specialty by serving in most cases in one office; the majority of assignments are within the Air Force Systems Command. Educationally, a baccalaureate degree is required, preferably in a contracting or manufacturing subject. Officers should also complete all mandatory training.

In the second, or intermediate phase, it is intended that officers increase their in-depth technical knowledge with assignment rotations through various contracting and manufacturing functions in central, systems, operational, and research and development contracting operations. Officers should complete all mandatory training at this level, obtain an advanced degree and attend Squadron Officer School. In the third, advanced development phase, officers should broaden their experience by serving in staff jobs at Major Command (MAJCOM) or Air Force Secretariat level. But the majority will serve as branch or division chiefs at System Program Offices (SPOs) and AFPROS, or as Base Contracting Officers (BCOs). All required intermediate level training courses should be completed as well as an Intermediate Service School. In the final, or staff phase, the majority of officers will serve as SPO contracting directors, AFPRO, Air Force Contract Maintenance Center (AFCMC), and DCASPRO commanders, and as Base Contracting Officers at larger operational contracting offices. A few selected officers will serve on MAJCOM or Secretariat staffs. Officers should complete the senior level training courses, obtain an advanced degree in their management area, and complete a Senior Service School.

Most officers in the contracting career field follow a single track or vertical career progression within the 65XX specialty. However, a limited number of officers from other specialties or career fields such as officers on rated supplement tours may enter the 65XX career field through either retraining via a Duty Air Force Specialty Code (DAFSC) change or through either the Air Force Institute of Technology's Education With Industry (EWI) or graduate degree programs. The majority of the EWI positions are used for officers transferring into the career field. Officers broadening into the field normally will not be placed in a key position identified by the Director of Contracting and Manufacturing in the 6596 AFSC.

Education With Industry

The Air Force established its Education With Industry (EWI) program for military officers in 1949. EWI participants are centrally selected at the Air Force Military Personnel Center (AFMPC). They are primarily captains, with some first lieutenants and majors. The primary purpose is to access new officers into the contracting and manufacturing career field. Officers selected for EWI do not have a background in contracting. EWI quotas are provided by Headquarters, Air Force Deputy Chief of Staff for Personnel. The functional community has an input in determining the number of quotas. Selection of Air Force officers is done by the PALACE Team career monitors in AFMPC. After initial screening,

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candidates are referred to an AFIT Selection Board at AFMPC. This is basically an "in-basket" process where the various colonels will review the individual's record and potential and make the final selections. After selection, AFIT negotiates with various firms for placement in training within their organizations. At the conclusion of their training, EWI graduates will receive a follow-on assignment in contracting and will remain in the contracting career field, with the exception of rated officers, i.e., pilots and navigators. In academic year 1988–1989, the Air Force has 54 EWI quotas in Contracting and Manufacturing.

Program Scope

In November 1988, there were 1,532 officer positions with 1,512 officers assigned to the AFSC 65XX utilization field (99 per cent). Exhibit V–55 provides a breakout of the number of authorized positions, the number of assigned 65XX officers, and the percentage of 65XX officers assigned to authorized positions:

EXHIBIT V–55—INVENTORY OF AFSC 65XX OFFICERS

Title	Rank	Number of personnel assigned	Number of positions authorized	Manning percent
Lieutenant	0–2	233	202	115
Captain	0–3	635	577	110
Major	0–4	321	359	89
Lieutenant Colonel	0–5	203	271	75
Colonel	0–6	120	123	98

The approximate distribution of these officers by Air Force Specialty Code is shown in Exhibit V–56.

EXHIBIT V–56—DISTRIBUTION OF 65XX OFFICERS

[By AFSC]

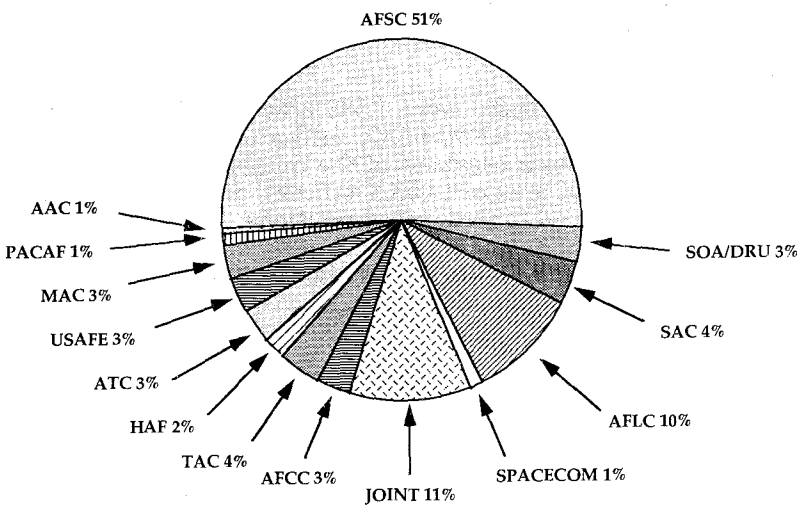
Title	AFSC	Rank	Percent
Manufacturing officer	6524	01–04	7
Acquisition contracting officer	6534	01–04	43
Manufacturing engineering officer	6544	01–04	1
Acquisition contracting and manufacturing staff officer	6516	04–06	39
Acquisition contracting and manufacturing director	6596	05–06	10

Over 50 percent of all officers are in the grades of lieutenant through major. The predominance of officers, especially in the senior grades, are in the two major procurement commands, Air Force Systems Command (AFSC) and Air Force Logistics Command (AFLC), with a total of 914 officers currently on board—61 per cent of the contracting and manufacturing officer corps. The remaining officers are assigned to operational contracting positions worldwide, to the Defense Logistics Agency, or to the Secretariat. A total distribution of officer positions at the grades lieutenant through lieutenant colonel is at Exhibit V–57.

EXHIBIT V-57

65XX Force Management Distribution by Major Users

Lt thru Lt Colonel



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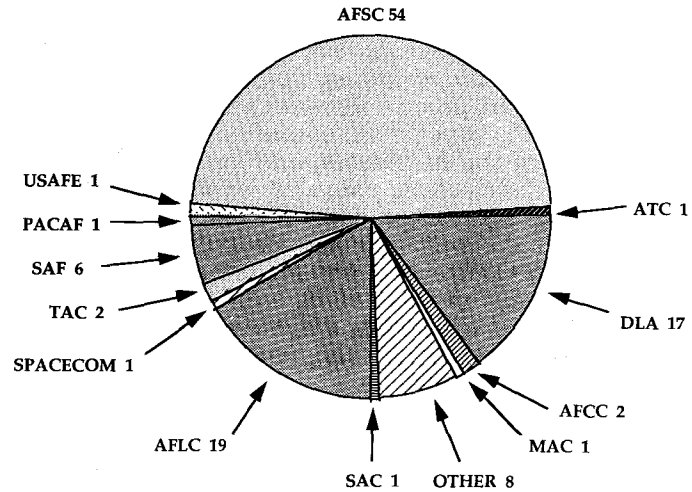
The distribution of colonels in contracting is indicated by Exhibit 58.

EXHIBIT V-58

65XX Force Management Distribution by Major Users

Colonels



Total: 114

There are also 316 65XX officers in the Air Force Reserve (AFRES). Two hundred ninety are assigned as Individual Mobilization Augmentees (IMA) and 26 officers are members of the Individual Ready Reserve (IRR).

The 290 contracting personnel (officer and enlisted) in the Air National Guard include 91 Active Guardsmen and 199 Air Guard Technicians. One hundred seventy eight of these are warranted contracting officers. All Air National Guard flying bases have full-time contracting organizations. Since in peacetime the Air National Guard reports to the Adjutant Generals of the various states as well as the National Guard Bureau, contracting authority comes from the Secretary of the Army through the National Guard Bureau. The Army Principal Assistant Responsible for Contracting (PARC) within the National Guard Bureau is responsible for all contracting policy and training for the Air and Army National Guard.

Military Personnel Management of Officers in Contracting

Officer Assignments

The Air Force centrally manages the assignment process through AFMPC with the contracting PALACE Team responsible for assignments of lieutenant colonels and below. Colonel and colonel (select) assignments are managed by the Colonels Group within AFMPC. The PALACE Team considers all officers eligible for reassignment and, with the help of the commander or supervisor and MAJCOM, examines their qualifications and experience, comparing them to existing position requirements. The Colonels Group works with the member's MAJCOM or agency senior officer manager in determining assignments. Once the individual is selected, the PALACE Team or Colonels Group works with the individual and the cognizant MAJCOM and processes the assignment. Factors considered in the assignment process include the grade and experience level of the position, the experience, education, performance, training, and availability of the candidates, and force management concerns such as rated distribution, manning levels, separation dates, and rated supplement completion dates for lieutenant colonels and below. For all 65XX colonels and key lieutenant colonel assignments, the Director of Contracting and Manufacturing is closely involved in the assignment process, along with the assistance of the four other 65XX General Officers in the Air Force. They meet biannually to review assignments and the general status of the 65XX career field.

Promotions

Officers in the 65XX career field compete for promotions with all line officers and other mission support officers in the Air Force. No designated promotion percentages are reserved for contracting personnel. Moreover, completion of mandatory DOD contracting courses, pursuant to DOD 5000.52-M (Draft), is not a consideration of promotion boards. The 65XX field grade officers have been very competitive for promotion in recent years at the grades of colonel and lieutenant colonel when compared to promotion rates in the total non-rated officer corps. Promotion data on these three grades is provided in Exhibit V-59.

EXHIBIT V-59—COMPARATIVE PROMOTION RATES OF OFFICERS

[In percent]

Colonel	CY85	CY86	CY87
In the primary zone:			
65XX	50.0	48.3	42.6
Non-rated line (NRL)	46.0	41.7	39.1
Above the primary zone:			
65XX	10.0	0.0	13.3
Non-rated line (NRL)	3.2	3.9	3.5
Below the primary zone:			
65XX	2.0	1.8	7.3
Non-rated line (NRL)	1.8	2.0	3.0

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EXHIBIT V-59—COMPARATIVE PROMOTION RATES OF OFFICERS

[In percent]

Lieutenant Colonel	CY85	CY86	CY87
In the primary zone:			
65XX	63.9	74.1	65.3
Non-rated line (NRL)	56.6	62.0	61.2
Above the primary zone:			
65XX	9.2	12.5	7.1
Non-rated line (NRL)	5.7	5.6	4.2
Below the primary zone:			
65XX	2.5	5.4	3.0
Non-rated line (NRL)	2.4	3.3	2.8

EXHIBIT V-59—COMPARATIVE PROMOTION RATES OF OFFICERS

[In percent]

Major	CY86B	CY87	CY88
In the primary zone:			
65XX	82.7	80.5	82.3
Non-rated line	75.1	77.4	78.0
Above the primary zone:			
65XX	16.4	5.9	20.0
Non-rated line	10.2	8.0	9.3
Below the primary zone:			
65XX	1.0	0.5	1.1
Non-rated line	0.8	0.5	0.9

In comparing contracting and manufacturing colonels with their peers throughout the Air Force, they appear very competitive by objective measure in terms of experience, education, and training, as shown by Exhibit V-60. The only area of measurement in which colonels in the 65XX career field differed appreciably from Air Force colonels in general is that significantly fewer 65XX colonels are rated.

EXHIBIT V-60—CONTRACTING COLONELS

	65XX	USAF
Years commissioned service	23.4	23.3
Average years in grade	3.7	3.6
Average age	46.8	46.4
Time on station	2.38	1.82
Education:		
Bachelor degree (only)	4.3%	8.75%
Master degree	93.1%	87.50%
Doctor of philosophy degree	2.6%	3.65%
Senior service school	96.6%	94.40%
In-residence	35.3%	36.60%
Aeronautical rating:		
Pilot	10.3%	41.2%
Navigator	7.8%	8.37%
Non-Rated	81.9%	50.4%

Military Career Program—Enlisted Personnel

As previously discussed, the Air Force has over 1600 enlisted military personnel in the Air force contracting workforce. Rationale for retention of an enlisted force in the contracting career field is based on the need to support overseas contracting operations and for use in case of deployment overseas in a national emergency—for example to provide contracting support at Collocated Operating Bases.

The enlisted career field is identified, in accordance with Air Force Specialty Codes, as the 651X0 career field. Air Force Regulation 39-1, "Airman Classification," Attachment 38, "Airman Contracting Career Field (65)" covers specialty descriptions for contracting personnel and provides a brief description of the duties, responsibilities, and specialty qualifications for each AFSC. Six different skill levels pertain to this field in a career progression hierarchy from Helper through Chief Master Sergeant. The enlisted workforce is trained and organized to work primarily in the base-level or operational contracting arena.

Management

The enlisted contracting career field is identified and managed within the overall context of Air Force personnel management of the enlisted force. In many respects the career program elements of the 651X0 career field resemble those found among officers assigned to operational contracting. The Air Force Military Personnel Center is the central organization which provides policy and manages, through the Airman Assignments Division, assignments of enlisted personnel. The Air Force Director of Contracting and Manufacturing Policy provides career program policy guidance to the utilization field. Career planning is generally decentralized while control of the career management system is centralized. There is a close working relationship between the Director, Contracting and Manufacturing Policy, the functional manager, and the military personnel managers at the Military Personnel Center. Changes to the personnel system are closely coordinated between the two organizations.

Career Path

Functional managers establish education and training requirements for entry into an Air Force Specialty. These requirements are reflected in AFR 39-1, along with the requirements needed for upgrade within the specialty. At the entry level is the Contracting Specialist, consisting of AFSC 65110 (Helper), 65130 (Semi-skilled), and 65150 (Skilled). Individuals are required to perform pre- and post-award contracting functions within the base-level contracting organization. Educationally, an Associate Degree with 24 hours of business-related subjects is desirable. Completion of the basic contracting specialist course is mandatory for award of the 65130 AFSC.

Next in hierarchical progression is the AFSC 65170 (Contracting Supervisor). At this level, an airman may function as a warranted contracting officer. Next is the 65190 AFSC (Contracting Superintendent) who has supervisory responsibilities in managing a contracting operation but may also perform as a warranted contracting officer. A baccalaureate degree with a business major is desirable. The 65100 AFSC is the apex of the enlisted career field and is generally held only by a Chief Master Sergeants (E-9).

Currently, there is no mandatory positive educational and training requirement for the enlisted force, beyond AFSC 65150. However, the new, draft AFR 70-2, "Air Force Contracting, Manufacturing, and Quality Assurance Professional Development Program," intended to implement DODD 5000.52 and the DOD 5000.52-M (Draft), provides specific guidance with respect to the minimum formal training and experience required.

Program Scope

In December 1988, there were 1,749 enlisted positions and 1,611 individuals (92 per cent) assigned to the AFSC 651X0 utilization field. Exhibit V-61 provides a breakout of the authorized enlisted contracting positions versus the contracting enlisted force assigned to those positions.

EXHIBIT V-61—INVENTORY OF 651X0 ENLISTED PERSONNEL

Grade	Number of personnel assigned	Positions authorized	Percent
Airman	182	186	98
Sergeant	312	273	114
Staff Sergeant	530	588	90
Technical Sergeant	320	365	88
Master Sergeant	206	245	84
Senior Master Sergeant	44	63	70
Chief Master Sergeant	17	29	59
Total	1,611	1,749	92

The approximate distribution of these enlisted personnel by AFSC is presented in Exhibit V-62.

EXHIBIT V-62—DISTRIBUTION OF 651X0 PERSONNEL

AFSC	Grades	Percent
65130	E1-E3	16
65150	E4-E5	45
65170	E6-E7	23
65190	E7-E8	7
65100	E9	9

The overwhelming majority of enlisted personnel are found in the operational MAJCOMS (93 per cent of the force). The 109 enlisted personnel assigned to the two procurement commands, AFSC and AFLC, are employed in support of the base contracting function.

There are also 61 enlisted 651X0 personnel in the Air Force Reserve; 13 are assigned as Individual Mobilization Augmentees (IMAs) and 48 are assigned as Individual Ready Reservists (IRRs).

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Additionally, the Air National Guard has 91 Air National Guard contracting organizations.

Personnel Management of Enlisted Contracting Personnel

Assignments

Air Force Regulation 39-11, "Airman Assignments," covers enlisted personnel assignments in general. There is no single chapter or section that specifically addresses the contracting career field. Assignments are centrally managed at the Air Force Military Personnel Center. An experienced functional contracting senior NCO is currently assigned to the Airman Assignments Division to manage enlisted contracting assignments.

Promotion System

The enlisted promotion system, like the officer promotion system, is centralized, but differs from the officer system in that promotions are made to fill vacancies. Once the actual number that can be promoted has been determined, this number is divided by the eligible population to arrive at the percentage to be used for each AFSC. All AFSC's have the same opportunity, except for those designated as chronic critical skills (CCS) who receive 1.2 times the non-CCS rate. As a result, no designated promotion percentages are reserved for contracting personnel. Promotions to Staff Sergeant through Master Sergeant are based solely on the Weighted Airman Promotion System, which is comprised of a set of weighted factors scored by the computer at the Air Force Military Personnel Center. Promotions to Senior and Chief Master Sergeant are accomplished by combining a similar weighted factor system with a centrally convened evaluation board score. While senior military contracting officials have no input into the instructions given to evaluation boards, the board members (two colonels and one chief master sergeant) are selected based on their background and experience with the career field they will be reviewing.

Air Force Civilian Career Program

In 1985 the Air Force implemented the Acquisition Civilian Career Enhancement Program (ACCEP), a comprehensive and integrated career program for its acquisition civilian work force. In March 1989, the Air Force renamed this career program the Contracting and Manufacturing Civilian Career Program (CMCCP) to better identify the personnel with their functional mission.

Management

To a large degree, the Air Force has established a career management structure that integrates civilian personnel management and functional management into a management team. This structure has centralized career program policymaking, while maintaining field involvement and input.

Air Force Regulation 40-110, Vol. X, which provides guidance for the CMCCP program, is included in this text as Appendix V-2. The CMCCP organization is depicted by Exhibit V-63. The CMCCP Policy Council is chaired by the Deputy Assistant Secretary of the

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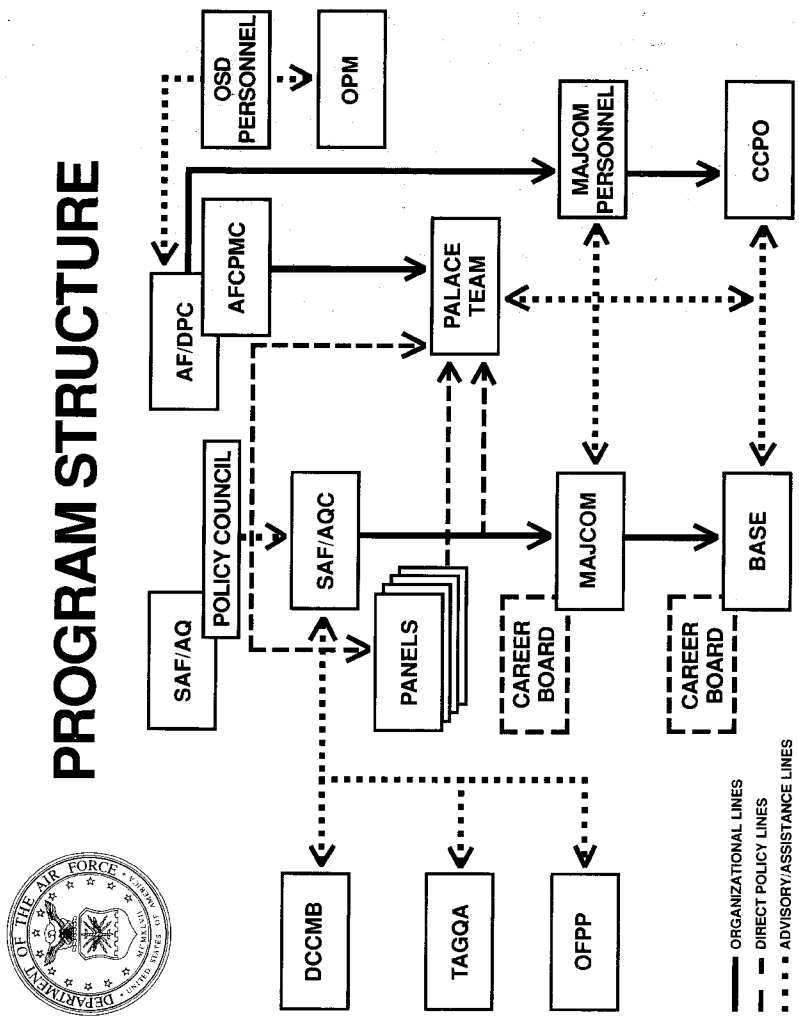
Air Force for Acquisition Management and Policy, who reports directly to the Air Force Acquisition Executive and Senior Procurement Executive. Other members include the Air Force Director of Civilian Personnel, the Associate Director of Contracting and Manufacturing Policy within the Secretariat, and the Associates to the Deputy Chiefs of Staff for Contracting at Headquarters, Air Force Logistics Command (AFLC) and Air Force Systems Command (AFSC) respectively. All are members of the Senior Executive Service (SES). The operating Major Commands (MAJCOMs) are represented by the Director of Contracting for a CONUS-based operating MAJCOM—a colonel. This assignment is rotated every two years. Non-voting members include the Chief of the Career Program Division in the Air Force Civilian Personnel Management Center, the PALACE Team Chief, and Secretariat and Air Staff liaison officers.

EXHIBIT V-63



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The career program is operated through a PALACE Team located in the Air Force Civilian Personnel Management Center at Randolph Air Force Base, Texas. The PALACE Team consists of civilian functionalists on career broadening assignments, matrixed with personnelists. The Chief of the PALACE Team is a functional expert in contracting who works for the Air Force Director of Civilian Personnel and the Chairperson of the Policy Council and reports to the Policy Council. Tours of duty are limited to 2 or 3 years.

The Policy Council is assisted by four panels, each chaired by a member of the Senior Executive Service and supported by GM-15s or colonels from the Contracting and Manufacturing Community. The four panels are: Professional Development Panel, Position Panel, Promotion Evaluation Pattern (PEP) Panel, and Program Effectiveness Panel. Major Commands (MAJCOMs) may also establish Career Boards, composed of functionalists and personnelists to implement the career program within their MAJCOM and provide feedback through their MAJCOM representative to the Policy Council.

Major Command Directors of Contracting and Civilian Personnel Directors provide instructions to their subordinate contracting and civilian personnel functions. Contracting managers at the base or field level work closely with the servicing Civilian Personnel Office. Lastly, there are supervisor and employees—key links in executing the program.

Good lines of communication are essential to effective career program operations. There are two normal lines of communication: functional—through contracting management channels—and civilian personnel. However, for career program matters, the PALACE Team has direct communications with both civilian personnel and functional management at all levels.

Career Path

The career path for contracting and manufacturing civilians is spelled out in detailed Master Development Plans that are included in Air Force Regulation 40-110, Volume X. These Master Development Plans were developed by the CMCCP Professional Development Panel and the PALACE Team after extensive coordination with functional civilian and military managers at all echelons. Approved by the Policy Council, the Master Development Plans set forth the professional development objectives, mandatory and desirable training, education and typical assignments for each occupational series at various grade levels. Required training and education incorporate the requirements of DOD Directive 5000.52 and DOD 5000.52-M (Draft). There is a generic managerial/supervisory Master Development Plan that applies to all CMCCP occupational series. This document sets forth required management and executive training and development. All Master Development Plans are incorporated as attachments to the CMCCP regulation, AFR 40-110, Vol. X.

Program Scope

The 11,443 person Air Force civilian component of the contracting workforce is larger than the civilian component of the other

Services and also encompasses a broader range of occupational series (11 separate series). The CMCCP provides program coverage for appropriated fund civilians from grades GS-5 through GM-15. The 11 different occupational series are included in three distinct but related categories: basic series, shared series, and bridge series. The occupational series that are included within the basic series belong exclusively to the CMCCP for career management purposes, no matter where the positions are located throughout the Air Force. Shared series include personnel and positions that are not exclusive to the CMCCP, but rather cross career program lines. The determination to include the positions in the CMCCP is based on the assignment of those positions to contracting and manufacturing functions and organizations. The bridge series includes occupational series that are integral to support of the contracting function. In addition, individuals in these series are an internal source for employees in the higher-graded professional series. Occupational series within CMCCP are enumerated in Exhibit V-64.

EXHIBIT V-64—CMCCP OCCUPATIONAL SERIES

Type	Series	Description
Basic	GS-1102	Contract and procurement.
	GS-1103	Industrial property management.
	GS-246	Contractor industrial relations.
Shared	GS-301	General administration.
	GS-1101	General business and industry.
	GS-1150	Industrial specialist.
	GS-801	General engineer (quality and reliability assurance).
	GS-896	Industrial engineer.
	GS-1910	Quality assurance.
Bridge	GS-1105	Purchasing agent.
	GS-1106	Procurement assistant.

The total numbers of CMCCP personnel by series and grade are displayed on Exhibit V-65.

EXHIBIT V-65—DISTRIBUTION OF CMCCP PERSONNEL

OCC series	0246	0301	0801	0896	1101	1102	1103	1105	1106	1150	1910	Total
GS-5	0	1	0	0	1	261	2	223	1,642	1	0	2,131
GS-6	0	0	0	0	0	2	0	92	260	0	0	354
GS-7	0	8	2	3	1	651	10	98	172	9	13	967
GS-8	0	0	0	0	4	2	0	0	9	0	0	15
GS-9	0	12	0	0	11	1,211	24	4	8	12	155	1,437
GS-10	0	0	0	0	0	12	0	0	0	0	0	12
GS-11	0	6	1	19	112	1,351	67	0	0	68	859	2,383
GS-12	1	19	56	125	18	1,967	100	0	0	64	278	2,628
GS-13	4	4	44	54	13	737	27	0	0	28	80	991
GS-14	4	2	20	26	5	297	3	0	0	10	30	397
GS-15	2	7	6	1	3	80	0	0	0	8	2	109
SES	0	1	0	0	8	9	0	0	0	1	0	19
Total	11	60	129	228	76	6,580	233	417	2,091	201	1,417	11,443

Fifty-eight per cent of the CMCCP personnel are in the GS-1102 Contracting series. Almost 70 per cent of the GS-1102 workforce

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are in the journeyman level (Level II) grades of GS-9 through GS-12. Approximately 17 per cent are in the senior (Level III) grades of GS-13 through GS-15. The largest number are contract negotiators (33%) followed by contract specialists (29%), contract administrators (14%), procurement analysts (12%), cost/price analysts (11%) and only 20 contract termination specialists.

Personnel Management of Civilian Contracting Personnel

Recruitment

Recruiting for entry-level positions is decentralized with the exception of the CMCCP intern programs. For all other entry positions, internal versus external recruiting decisions are left to the Major Command (MAJCOM) or local base. The Policy Council favors external recruitment of college graduates, preferably with a business background. However, the Council has not made this approach mandatory for local managers.

Intern Program

The Air Force has a large, high-visibility intern program that is centrally managed and funded. Reflecting the historical evolution of the various intern programs, there are currently three different intern programs: COPPER CAP, PALACE ACQUIRE, and the Presidential Management Intern (PMI) program.

COPPER CAP. The Contracting Career Management Program (COPPER CAP) was inaugurated in December 1970 to address the problem of an inexperienced and untrained contracting workforce. Beginning in Fiscal Year 1973, 100 authorizations per year for three fiscal years (Fiscal Years 1973-1975) were taken from Air Force manpower resources to establish this program. A total of 300 positions were authorized and controlled by the Air Force Director of Contracting and Manufacturing Policy but were allocated to the MAJCOMs, which provided the necessary funding.

In 1980, the Director of Contracting and Manufacturing Policy initiated the COPPER CAP 80's Study, which concluded that there was an absence of management control and direction resulting from this decentralized approach. The study made 13 recommendations to improve the program, including the development of new procedures for selecting, training, developing, and placing COPPER CAP interns.

The CMCCP Policy Council decided in 1986 to integrate the COPPER CAP program with the CMCCP. The 300 COPPER CAP positions are now assigned to and funded by the Air Force Civilian Personnel Management Center, for the Director of Contracting and Manufacturing Policy and are managed by the PALACE Team. Until recently, these positions were reserved for the GS-1102 series except for a limited designated number of GS-1150 and GS-896 positions within the Air Force Systems Command. In 1988, the Policy Council decided to convert all COPPER CAP positions exclusively to the GS-1102 series.

COPPER CAP intern training varies in length from a minimum of two years to a maximum of five years. There are two levels, or phases, in the COPPER CAP Program. The first level, known as Basic, is for initial intake of personnel. This level begins at the GS-

5/GS-7 level. The minimum training period is two years, but is normally three years; in some cases, training length is five years. Entry level for the Advanced Phase is either GS-9 or GS-11; target grade is either GS-11 or GS-12, and the training length is either one or two years. MAJCOMs are required to develop Individual Training Plans consistent with the appropriate CMCCP Master Development Plan, and provide copies to the PALACE Team. Intern quarterly reports should reflect accomplishment of training objectives.

Recruitment of COPPER CAPs varies depending on the type of position to be filled. Both internal and external recruiting is allowed. Selecting officials may hire qualified individuals internally using established merit promotion procedures and a rating and ranking plan approved by the PALACE Team.

PALACE ACQUIRE (PAQ). The PALACE ACQUIRE intern program was initiated by the Air Force Director of Civilian Personnel in Fiscal Year 1985. It is an Air Force-wide program providing interns to all career programs. PALACE ACQUIRE manpower authorizations are controlled and managed by the Director of Civilian Personnel. The distribution of intern authorizations varies each year depending upon changes in mission, projected manpower increases or reductions, skill requirements, funding constraints, and other operational considerations. The Air Force Civilian Personnel Management Center PALACE Teams administer the program within their respective areas of responsibility. CMCCP receives its share of allocations each fiscal year along with other career programs. The Associate Director of Contracting and Manufacturing Policy then suballocates CMCCP allocations to various organizations based on their need.

PALACE ACQUIRE training is normally three years. Entry grade is either GS-5 or GS-7 with a target grade of GS-9 or GS-11. The PALACE Team, in coordination with functional representatives, will develop formal training and development plans. These plans are to be included in the intern in-processing package. Servicing CCPOs will assist the supervisor in the implementation of the training plan and will monitor each intern's training progress. The supervisor assures compliance with the training plan. Interns will report on training status in their evaluation reports.

Recruitment of PALACE ACQUIRE interns has been centralized using on-campus college recruiting and selection. Senior Air Force designated civilian recruiters from contracting organizations have visited colleges and universities nation-wide to interview and hire candidates. An alternative source is a pool of candidates who apply directly to the Air Force Civilian Personnel Management Center. Contracting interns all meet the requirements of the OPM Outstanding Scholar program.

Presidential Management Interns (PMIs). The Presidential Management Intern Program (PMIP)—established by Executive Order 12008 on August 25, 1977, and reconstituted by Executive Order 12364 in 1982—is designed to attract individuals of exceptional management potential. The PMIP is administered by the Office of Personnel Management (OPM). CMCCP allocations for PMI positions are provided by the Director of Civilian Personnel and Associate Director of Contracting and Manufacturing. The PALACE

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Team provides lists of eligible candidates to selecting officials at authorized locations.

PMI training length is normally three years. Entry grade is GS-9 and target grade is GS-12. PMIs will normally be promoted to GS-11 after 18 months of training and to GS-12 after an additional 18 months of training. Accelerated promotions, after 12 months, are permitted if the intern progresses at an accelerated pace. Final approval for accelerated promotions resides with the Policy Council Chairman or his/her designee.

The supervisor is responsible for development of Intern Development Plans (IDPs) for each PMI with the assistance of the PALACE Team and the local PMI mentor. The servicing CCPO will monitor compliance with the IDP. The supervisor of record assures compliance with the IDP. IDPs are reviewed by the Air Force PMI coordinator and forwarded to OPM. The intern submits a written report to the PALACE Team when each work assignment is completed.

Intern Scope

CMCCP has 509 interns authorized in the 3 programs as follows: 300 COPPER CAP positions, 204 PALACE ACQUIRE, and 5 Presidential Management Interns. The CMCCP program currently has 344 interns, 68 percent of the authorized positions. Exhibit V-66 provides a distribution of the current CMCCP interns.

EXHIBIT V-66—DISTRIBUTION OF CMCCP INTERNS

Series	Copper Cap	PAQ	PMI	Total
GS-1102	195	83	4	282
GS-896	7	5		12
GS-1103	2	0		2
GS-1150	6	1		7
GS-1101		3		3
GS-801		3		3
GS-1910		35		
Total	210	130	4	344

The interns are much better educated than the total workforce. Approximately 87 percent of the interns have a college degree. Ninety-nine percent of all PAQs have a degree compared to 93 percent for COPPER CAPs. Among GS-1102s, 100 percent of PAQs and PMIs (who also have a Master degree) have a degree compared to 94 percent for COPPER CAPs and 60 percent for the entire Air Force workforce. Of all GS-1102 interns, 96 percent have a degree.

Each intern is required to sign a Training, Security and Mobility Agreement, which means they may be re-assigned at the conclusion of their training, if necessary. Evaluation and monitoring of an intern's progress is the responsibility of the PALACE Team, the supervisor, and the intern. Copies of the evaluation reports are provided to the PALACE Team. This assures that the PALACE Team and, ultimately, the Policy Council are aware of the overall status of the intern program as well as the progress of individual interns.

The PALACE Team issues an annual report to the Policy Council on the status of the intern program. This report provides status on allocations, vacancies, and projected vacancies by intern program. It also provides a training status report. In addition, the Team projects vacancies and reports utilization to the Associate Director of Contracting and Manufacturing Policy. This assists the top leadership in making decisions about re-allocation of intern positions.

Each year, the PALACE Team conducts an intern seminar. Interns from all three programs meet with the PALACE Team to review their records, receive career counselling, and receive briefings on CMCCP. In addition, the two-day seminar includes meetings and briefings with senior management from the field, the Associate Director of Contracting and Manufacturing Policy, Director of Civilian Personnel, as well as the Deputy Assistant Secretary for Acquisition Management and Policy.

Assignments and Promotions

Since June 1988, the CMCCP has developed and used an Air Force-wide central referral system utilizing the automated Personnel Data System-Civilian (PDS-C). The key subsystem of PDS-C is the Promotion and Placement Referral System (PPRS) operated by the Air Force Civilian Personnel Management Center. The basic system relies on skills codes tied to an individual's experience.

The requisitioning process to fill jobs is done by means of a Promotion Evaluation Pattern (PEP). This is an automated requisition which searches for individuals possessing the skills needed to do the job. PEPs are written by teams of functional (contracting and manufacturing) experts, assisted by personnelists. An individual's performance appraisal is also considered in the equation, as quality of work is important. The CMCCP has supplemented the standard system with a Whole Person Score (WPS), which is depicted in Exhibit V-67.

EXHIBIT V-67—CMCCP WHOLE PERSON SCORE

Elements	Weights	Points
Technical appraisal	52	100
Manner of performance	26	50
Performance appraisal	8	15
Education	12	22
Professional certifications	2	3
Total	100	190

The Whole Person Score heavily weights performance by employing a standard Technical Appraisal developed by functionalists and personnelists. This appraisal consists of various elements which are tailored to the individual job requirements. The Technical Appraisal is used in conjunction with the standard Air Force civilian appraisal in evaluating employee performance. Education is used as a quality ranking factor in accordance with the former DOD Directive 5000.48 and the current DOD Directive 5000.52 and points are

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awarded for professional development. Service computation dates and awards are tie-breakers.

There is a CMCCP career brief on each candidate. This is an automated, user friendly resume of high value data including all jobs held, education, professional certifications, intern program type, training history, awards, and contracting officer warrant type, amounts, and dates. Registration is voluntary. All GS-13 and above positions must be filled through this referral system as well as key GS-12 positions. The CMCCP system is managed by the PALACE Team.

The new referral system has been operational since June 1, 1988. Between that date and January 3, 1989, 263 referral certificates were issued (192 original certificates and 71 supplements). Only 36 (14 percent) have been returned without action. A total of 6,133 individuals have been referred. Based on all available evidence, the system is working far better than could be expected for a new system. Eighty-three percent of selections were made from original certificates. Selecting officials have provided feedback and are highly pleased with the quality of the candidates and the responsiveness of the system.

MANAGEMENT OF DLA CONTRACTING PERSONNEL

DLA is a "purple suit" agency that is 98 percent civilian. Fiscal Year 1989 overall military authorizations and those in contracting are enumerated in Exhibit V-68.

EXHIBIT V-68—MILITARY AUTHORIZATIONS IN DLA

Service	Total		Contracting	
	Number	Percent	Number	Percent
Army	381	39	117	34
Navy	219	22	101	30
Marine Corps	26	3		
Air Force	356	36	125	36
Total	982	100	343	100

There are 51,245 direct-hire (appropriated fund) civilians; 4,930 are in the GS-1102 contracting series. The bulk of the contracting workforce is, typically, at the intermediate, or journeyman level (Level II in Draft DODD 5000.52-M parlance). The distribution of GS-1102 by grade structure is presented in Exhibit V-69.

EXHIBIT V-69—DLA GS-1102 STRATIFICATION BY LEVEL

Level	Grade	Number	Percent
I	GS-5/7	527	11
II	GS-9/12	3,798	77
III	GS/GM-13/15	605	12

Civilian Contracting Career Program

DLA has established a nascent career program for its contracting civilians. Its focus is on training and development and, like the Services' programs, the DLA career program operates within the framework of an overall civilian career program structure.

Management

Functional responsibility for the program rests with two Principal Staff Elements: the Executive Director, Contracting, and the Executive Director, Contract Management, who serve as Department of Defense Component Functional Chiefs and assume Defense Logistics Agency-wide responsibility and leadership for planning, developing, and administering the career programs. Operationally, the DLA system is primarily decentralized with control at the operating field level, the DCASRs and Supply Centers.

Career Path

DLA currently lacks an implementing or tailored career path for the contracting career field. It has traditionally relied on the broad guidance contained in DOD 1430.10-M-1 with no further regulatory implementation, and continues to rely on that manual pending the publication of DOD 5000.52-M, DOD-Wide Career Program for Acquisition Personnel.

Personnel Management of Civilian Contracting Personnel

Recruitment

Recruitment of new personnel, especially at the entry levels, is decentralized to the local Civilian Personnel Office. Entry level (GS-5 and GS-7) personnel are recruited locally from internal sources as well as externally (e.g, from the OPM registers) with limited central oversight by DLA Headquarters and the Civilian Personnel Service Support Office (DCPSO). Of the 527 contracting new hires, less than 50 percent (263) have a college degree. Sixty percent of the new hires (316) were hired internally; of these, only 66 (or 21 percent) had a college degree. This method has traditionally tended to favor non-college graduates. Of the 211 individuals hired externally, most were hired from OPM certificates.

Interns

Prior to 1985, DLA intern management was centralized in the DLA Centralized Intern Development Office (DCIDO)—pursuant to DLA Regulation 1445.3, dated July 25, 1984. This regulation established a 3 year intern program with in-take at the GS-5 level and placement, upon graduation, in GS-9 positions. Recruitment, career paths, training plans, and funding were centralized. In November 1985 it was decided to decentralize intern management to the PLFAs. The DLA Centralized Intern Development Office was eventually disestablished and its functions transferred to the DCPSO on December 10, 1986.

The new, draft DLA Regulation 1445.3 now defines interns as "any individual in a position whose target is the full performance level." The upshot is that all GS-5/7 employees in the GS-1102 series at DLA are, by definition, interns. Overall policy is centralized, but execution is decentralized except for the training and oversight functions delegated to DCPSO. Concomitantly, interns are selected locally and their salaries are paid locally, but they are trained in accordance with programs of instruction which mandate formal and on-the-job training and which are centrally designed and developed. However, funding for intern training is decentralized to the PLFAs.

Assignments and promotions

These two personnel functions are typically decentralized. There is no central referral system for promotions or assignments. Each servicing Civilian Personnel Office is filling positions through local merit promotion procedures. However, for GS-14 positions the area of consideration must be DLA-wide and DOD-wide for GS-15 positions. DLA has no plans now to centrally manage or refer candidates. Assignments of individuals is also left to local functional management with assistance from the supporting CPO.

THE CONTRACTING OFFICER

Within the contracting workforce and the acquisition process, the contracting officer occupies a singularly important position. The contracting officer is the individual officially and legally authorized to enter into and administer contracts on behalf of the United States. This unique authority and responsibility makes it critical to understand the role of the contracting officer, how that person is selected and appointed, and the characteristics of contracting officers in the Department of Defense. Accordingly, this chapter examines the contracting officer's: (1) role in the acquisition process; (2) authority; (3) qualifications and types of appointments; and, (4) characteristics (in terms of distribution within the DOD, grade level and series, and by type of warrant).

Role of the Contracting Officer

Contracting Officer Relationships

The contracting officer is the fulcrum of the acquisition process. As such the contracting officer not only is the Government's authoritative voice to the contractor, but interfaces with various functional and management personnel within the Government. The contracting officer, whether in the base-level environment, in a central buying office, or in systems acquisition, must interface with the customer. In the case of the former, the customer often is another functional area involved in installation operations, such as the civil engineer or the base supply or services functions. Beyond the immediate customer, the contracting officer must support the installation commander. In the central buying office, the immediate customer is usually the item or inventory manager. In the last case, the contracting officer's primary customer is the Program Manager.

Interface with the Program Manager. The contracting officer makes two significant contributions to program success. The first and most important role is to implement program decisions

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through the contracting process. The second role is to provide sound advice to the Program Manager on contractual and business matters.

The relationship between these two individuals is critical to the acquisition process. Because of "divided power," the relationship has been subject to critical commentary. One school of thought criticizes the division of responsibility and sees the Program Manager as the key player who needs all requisite authority. Others view the tension between the two as a healthy "check and balance" between the basic differences in emphasis. The Program Manager tends to focus on achieving program success and expeditiously cutting through "red tape." The contracting officer, while also concerned with program success, has a higher obligation to follow contracting laws and maintain the integrity of the contracting process. Thus, the dichotomy of emphasis can serve as a "braking" mechanism. It should be noted that there is a fundamental distinction between the contracting officer's and other functional and technical experts or the program management "team." All can equally give the Program Manager expert advice, but the contracting officer has real and distinct authority independent of the Program Manager.

Interface with the Engineers. In addition to acting as a "check and balance" on the Program Manager, the contracting officer often serves in this capacity with respect to the engineers who are drafting the specifications which will be used to purchase an item. Engineers are oriented to the technical and technological aspects of a project, not the business or contractual aspects. The Ad Hoc Committee on the Role of DOD Contracting Officers, American Bar Association, Section of Public Contract Law observed in its report, *The DOD Contracting Officer* (1987):

> Engineers as a class are not directly concerned with attaining socio-economic objectives, nor are they focused on full and open competition or on specifications which support these policies. Consequently, the contracting officer provides an important counter weight in assuring that technical specifications are written with these concerns in mind.

The contracting officer and engineer are essential to each other's success, but most Government contracting personnel lack an engineering or technical background, coming rather from the business schools or liberal arts, if they have completed college. Thus, there tends to develop a relationship akin to what C.P. Snow describes as the "two cultures" in the famous Rede Lecture of 1959:

> . . . the intellectual life of the whole of western society is increasingly being split into two polar groups . . . at one pole we have the literary intellectuals . . . at the other scientists . . . Between the two a gulf of mutual incomprehension—sometimes . . . hostility and dislike, but most of all lack of understanding."

Interface with the Attorneys. Contracting officers must seek the legal advice of attorneys. Oftentimes there is, as the American Bar Association observed, a "forced marriage" between the two. Normally, the relationship between the two is healthy, but the attorney's counsel is another essential relationship the contracting officer must cultivate.

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Interface with the Auditors. The contracting officer has a strong and sometimes controversial relationship with auditors. While the contracting officer may occasionally interact with auditors in the General Accounting Office and the DOD Inspector General organization, the primary interface is with Defense Contract Audit Agency (DCAA) auditors who assist contracting officers by auditing proposals, contractor accounting and financial management systems, conducting defective pricing audits, and auditing incurred costs on cost-type contracts. Auditors may also assist contracting officers in negotiations by providing assistance in contractor financial accounting matters.

Interface with the Competition Advocate. The Competition Advocate, established by the Competition In Contracting Act (P.L. 98–369), is responsible for promoting full and open competition and challenging any barriers thereto. In that capacity, the Competition Advocates have the right to interject themselves into acquisitions. For example, the Competition Advocate of the procuring activity is required to approve all contract actions over $100,000 dollars that are not accomplished on the basis of "full and open competition." The Competition Advocate can often help the contracting officer by relieving the latter from organizational pressures for sole source procurements.

Interface with the Source Selection Authority. The Federal Acquisition Regulation requires the Agency head or designee to ensure that a Source Selection Authority (SSA) is formally designated at "a management level above that of the contracting officer" (FAR 15.612). The SSA is assisted by a Source Selection Evaluation Board and Source Selection Advisory Council to evaluate proposals and select the source for contract award. This procedure is generally used for high dollar value acquisitions and may be used in other acquisitions as prescribed in agency regulations. This procedure applies for example to Major Defense Acquisition Programs (MDAP) as defined in DOD Directive 5000.1. The SSA is the official designated to direct the source selection process and make the source selection decision. Thus, in acquisitions where source selection procedures are applicable, the normal decision-making that inheres in a contracting officer resides with the Source Selection Authority.

Contracting Officer Authority

Contracting authority is a "resulting power" which flows from the Government's essential nature as a sovereign, political entity. It is delegated by the Secretary of Defense to the defense agencies, certain personnel within the Office of the Secretary of Defense, and the Service Secretaries. The authority in turn is delegated by the head of the agency to various individuals in the agency, including contracting officers. The flow of this authority is external to, but often parallels, the organizational chain of command.

Contracting authority normally devolves to the contracting officer through a warrant—analogous in some respects to a power of attorney, which specifies any limitations on the authority given to

the individual. "Contracting officers may bind the Government only to the extent of the authority delegated to them. Contracts may be entered into and signed on behalf of the Government only by contracting officers" (Federal Acquisition Regulation 1.601).

Thus, contracting officer authority is limited by the warrant of appointment. There are other limitations included in statute, regulations and organizational directives, as well as the common law. Nonetheless, contracting officer authority has been found to be quite broad in numerous contracting areas, such as in determining contractor responsibility and in issuing final decisions under the Disputes Clause of Government contracts.

Coincident to the authority of the contracting officer, there are two key concepts that are essential to proper functioning of the contracting process: the independence of the contracting officer and the personal nature of his or her decisions. Independent judgment is a logical prerequisite for a contracting officer to properly accomplish the three basic regulatory responsibilities enunciated in the Federal Acquisition Regulation: ensuring performance of all necessary actions for effective contracting, ensuring compliance with the terms of the contract, and safeguarding the interests of the United States in its contractual relationships. Accordingly, FAR 1.602-2 states: "In order to perform these responsibilities, contracting officers should be allowed wide latitude to exercise business judgment."

Qualifications and Appointments

The basic standards and qualifications for contracting officers are found within the procurement regulatory system as there are no minimum statutory criteria. The minimum standards for appointment of contracting officers are influenced, indeed controlled to a large degree, by personnel regulations.

The FAR 1.603-3 provides only very general guidance on the appointment process:

> Contracting officers shall be appointed in writing on a "Certificate of Appointment," SF 1402, which shall state any limitation on the scope of authority to be exercised, other than limitations contained in applicable laws or regulations. Appointing officials shall maintain files containing copies of all Certificates of Appointment that have not been terminated.

Appointing officials are required by FAR 1.603-2 to consider two elements in selecting contracting officers: the requirements of the job (e.g. the complexity and dollar value of acquisitions to be assigned) and the candidate's experience, training, education, business acumen, judgment, character, and reputation. FAR 1.603-2 provides the following five examples of selection criteria: (a) experience in Government contracting and administration, commercial purchasing, or related fields; (b) education or special training in business administration, law, accounting, engineering, or related fields; (c) knowledge of acquisition policies and procedures, including the FAR and other applicable regulations; (d) specialized knowledge in the particular assigned field of contracting; and (e) satisfactory completion of acquisition training courses.

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Contracting officers are appointed by two different methods and have two types of authority—limited and unlimited. Those with unlimited authority are authorized to perform contract actions regardless of dollar amount or contract type, within the general restrictions contained in regulation with respect to approval level on certain types of contract actions. Those with limited authority are further circumscribed by specific limitations contained in their warrant. For example, a contracting officer's warrant may be limited in terms of the dollar value of contracts he or she may sign, or restricted to certain types of contract actions, such as award—but not termination authority.

Two methods of appointment have traditionally been employed: position designation and specific appointment. When utilizing specific appointments, contracting authority is vested in the individual, not the position. The requisite skills, education and training may be defined by the position, but they inhere in the individual occupying the position.

In the older, position designation process, contracting authority resides in the position rather than the individual appointed to fill the position. Contracting functions are typically only a portion of the duties performed by the person holding the position, and contracting authority is considered a prerequisite to the person's performing their primary responsibilities. As such the individuals are selected on the basis of their qualifications to perform the entire range of functions required by the job, many of them management functions, not on whether they meet any specific criteria pertaining to their ability to perform effectively as contracting officers. The position designation process is predicated on the assumption that a person appointed to a position requiring contracting officer duties is capable of performing those duties or they would not have been appointed in the first place. Thus, the individual is normally assigned to the position and then receives the contracting officer warrant.

The largest vestige of the position designation system is in the Army Corps of Engineers. Contracting authority flows down the organizational chain of command—from the Chief of Engineers through Division Engineers to Districts, all of which, by position, hold contracting warrants though they are not "contracting officers" by career or training.

However, one may likely find within most organizations a combination or hybrid of both types of warrant systems. For example, within the NAVSEA SYSCOM, Commanding Officers of SUPSHIPS and NAVPROS receive their warrant by position, but all other contracting officer appointments (the majority) are specific appointments.

The position designation process often results in contracting officer warrants being authorized individuals who are not in the traditional contracting career field. As such, there is a large group of "contracting officers" who remain outside the training and career development programs established for contracting officers. This is most particularly the case for Army engineer officers in the Corps of Engineers, medical logisticians in the Army Health Services

Command, and 354 Civil Engineering Corps officers holding contracting officer warrants in the Naval Facilities Engineering Command, although the latter were issued warrants after completing DOD mandatory courses.

Another problem with the contracting officer warrant and personnel assignment processes is the fact that the personnel system screens individuals for jobs based on general qualifications for the job when in fact the person may not have the qualifications to receive a contracting warrant. For example, the civilian personnel system identifies the job positions in six specialties, e.g. contract specialist, contract negotiator, etc., without identifying whether the job would require someone with a contracting officer warrant. This results from the fact that the title "Contracting Officer" is not recognized as a personnel category or specialty within the OPM Classification Standards. Rather, the classification standards recognize the existence of four types of functional contracting officers: Procuring Contracting Officer (PCO), Administrative Contracting Officer (ACO), Terminations Contracting Officer (TCO) and Corporate Administrative Contracting Officer (CACO).

This is a particular problem with the military because assignments are made through a centralized personnel system that does not include as one of the job criteria whether the individual must hold a warrant or is qualified to obtain one. For civilians, because final selection is done by the hired individual's superior, there is a much greater chance that qualification to hold a contracting warrant, if it is required, will be a consideration in the selection.

In both cases the selected individual must then receive a contracting officer appointment (warrant) through contracting (functional) channels even though the individual who must grant the warrant may not have been involved in the initial selection process. If a warrant is not provided (because the individual fails to meet the established standards), one is faced with a contracting management and personnel dilemma.

Beside these broad criteria, the FAR leaves to each agency to amplify, if desired, these general considerations or to establish basic qualification criteria. The Department of Defense FAR Supplement is silent on any additional qualifications, leaving it to the discretion of the Services and agencies to provide further amplification. Each Service and agency takes a different approach in further defining the qualifications of contracting officers.

Service Specific Criteria

Army. The Army has established no criteria beyond the very broad criteria set forth in the FAR. The lack of guidance has allowed the appointment of individuals to contracting officer positions without the necessary experience and training. In fact, individuals in the Corps of Engineers, Health Services Command, and some Program Managers are routinely given contracting officer warrants even though they have little or no contracting experience or training.

Navy. The Navy Acquisition Procedures Supplement (NAPS) does not establish any criteria for contracting officer selection beyond what is in the FAR. In consonance with its overall approach, the Navy has delegated to the SYSCOMs authority for issuing implementing instructions or guidelines relating to qualifications of contracting officers.

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Each SYSCOM has established its own specific criteria and system for appointing contracting officers. For example, within NAVSEA, the Deputy Commander for Contracts issues contracting officer warrants in seven different classes, based on dollar amounts, functions, and types of contracting action (NAVSEAINST 4205.31 (July 29, 1985)). Types of appointments (by these 7 classes) are tied to the individual's grade and/or organizational and functional position. In NAVFAC, there are six levels of contracting officer authority based on dollar value. Each level sets forth minimum experience, education, and training required plus qualifying duties.

Air Force. The Air Force Supplement to the FAR (1.603-2) establishes additional criteria, by grade and class, for appointment as a contracting officer: the person must be a commissioned officer (in any field), or a non-commissioned officer in grades of E-6 and above in a contracting Air Force Specialty code, or a civilian GS-1102 who is "fully qualified" at the "journeyman" level.

For practical purposes, the term journeyman level equates to full-performance level, meaning the individual has completed sufficient training, such as an internship, and is capable of performing the functional duties required with a modicum of technical supervision. Normally, this translates to the GS-9 through GS-12 grade level, depending upon the organization, training plan and complexity of the work. In the base contracting environment, the journeyman level starts at the GS-9 level, whereas in central and systems contracting, GS-12 grade would be considered the journeyman level. The Air Force has thus established more stringent prerequisites for civilians and enlisted than for officers, as the latter can be, theoretically, from any career field if they meet the basic FAR criteria.

The Air Force has also established and expanded limited contracting officer appointments. These contracting officer warrants limit the individual's authority: to simple contract actions (the placement of various types of orders) for personnel with two years' experience in contracting; by function (transportation and commissary personnel); or by dollar amount and commodity (for non-contracting personnel—normally librarians, medical supply officers, civil engineers). Non-contracting personnel so appointed must commit to complete contracting courses consistent with the DOD required courses within 2 years of their appointment. In addition, the Air Force FAR Supplement 1.690 provides limited contracting authority to personnel in nine other categories outside of contracting.

The upshot of this initiative towards decentralization is that, paradoxically, contracting authority is being given to "non-professional" contracting personnel with less experience, education and training than typical for contracting officers at the same time as the standards are being raised for full-time "professional" contracting personnel.

In addition, Air Force FAR Supplement 1.603-3 gives appointing authorities latitude to waive the qualification requirements "when the best interests of the Air Force will be served." Furthermore, Heads of Contracting Activities may, and have in some cases

define additional specific criteria and appointment procedures through their Supplements to the FAR.

The Defense Logistics Agency has established 3 different contracting officer warrant levels and has tied responsibilities and criteria to each level as presented in Exhibit V–70.

EXHIBIT V–70—DLA CONTRACTING OFFICER LEVELS

Level	Authority	Selection criteria
Basic	Small purchases and ordering	Two years recent experience in acquisition, 6 months in small purchases; high school diploma; Level I mandatory contracting courses.
Intermediate	Contracts and Modifications up to $500,000	Three years recent and progressively complex acquisition experience; bachelor degree with 24 semester hours in related field of study desirable; Level II mandatory contracting courses.
Senior	Contracts and Modifications over $500,000	Four years recent, progressively complex acquisition experience; bachelor degree with 24 hours in related field of study desirable; Level III mandatory contracting courses.

The DLA Supplement to the FAR does not require a periodic review of contracting officer warrants like the Air Force. However, it is DLA policy that performance as a contracting officer will be reviewed annually as a part of the annual performance evaluation.

Contracting Officer Appointment Authority

Agency heads or their designees are authorized by FAR 1.603–1 to select and appoint contracting officers. Thus, ultimate authority is vested in the Secretary of Defense and the Secretaries of the Military Departments. The authority to appoint contracting officers has been redelegated through the Senior Procurement Executive within the Service Secretariat to various organizational levels within each agency. At a minimum, the appointment authority has been delegated to the various Heads of Contracting Activities (HCAs) in each Service. Each Service implements this guidance somewhat differently.

Army. There are ten categories of officials authorized to appoint Army contracting officers and are clearly identified in the Army FAR Supplement (1.603–2). With few exceptions, contracting officers are typically appointed by the Major Command (MACOM) Principal Assistant Responsible for Contracting (PARC) who works for the HCA. The only authorized exceptions include the Superintendent of the United States Military Academy, Division Engineers within the Corps of Engineers, chiefs of foreign missions, and chiefs of Army elements of a joint military mission not under a major overseas command. In addition, the chiefs of contracting offices may be redelegated authority to appoint ordering officers.

Navy. The Navy has designated by regulation the Heads of Contracting Activities as contracting officers (Navy Acquisition Procedures Supplement 1.601(a)). In addition, the Head, Cost and Profit Review Branch, Contract Business Management is designated by regulation a contracting officer. The appointment procedures for contracting officers not designated by position has been delegated

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to the SYSCOMS for implementation. The authority for appointing contracting officers within the Navy Field Contracting System has been delegated by the Commander of NAVSUP.

Air Force. The Air Force FAR Supplement (1.603–3) does not designate which officials may appoint contracting officers except that appointment authority for limited contracting officers may be delegated to the chief of each contracting activity. Rather, each major subordinate organization (MAJCOM, SOA, DRU) may establish procedures for appointing contracting officers.

Defense Logistics Agency. The Director of DLA has delegated contracting officer appointment authority to the DLA HCAs (the commanders of the Defense Supply Centers), who may further redelegate that authority. In addition, the Assistant Director of the Office of Telecommunications and Information Systems has also been delegated appointing authority.

Characteristics of Contracting Officers

The Services and Defense Logistics Agency do not have central records of the basic information on numbers of contracting officers by type of warrant, education and so forth. The FAR 1.603–3 requires appointing officials to "maintain files containing copies of all Certificates of Appointment that have not been terminated." Thus manual records of appointment may be found in the office of the HCA or appointing official. In practice, this means these records will be located no higher organizationally than Major Command level in most cases. As a result, the Service Acquisition Executive and Senior Procurement Executive do not have information on the educational and experience levels, or types of warrants held by their contracting officers. The Department of Defense, through DODI 5000.52 (Draft), is attempting to rectify this situation by requiring the Services and Defense Agencies to change their personnel data systems and report basic contracting officer data on military and civilians alike to the Defense Manpower Data Center.

Only the Air Force, through the Contracting and Manufacturing Civilian Career Program (CMCCP), has been able to capture and report contracting officer data (but only with respect to civilians) through the Personnel Data System—Civilian (PDS–C). The CMCCP's enhancements to the Personnel Data System—Civilian have served as a prototype for the Defense Manpower Data Center data-collection effort.

Distribution

The data presented in Exhibit V–71 was provided by CMCCP and provides a distribution of the grade structure of the Air Force civilian contracting officer work force. As indicated, there are approximately 2,000 Air Force civilians with contracting officer warrants. Seventy-nine percent are in the two Air Force "procurement" commands—Air Force Logistics Command (AFLC) and Air Force Systems Command (AFSC). The remaining 21 percent are assigned, for the most part, to "operational" contracting Major Commands (MAJCOMs). Over half of all civilian contracting officers are in AFLC (52 percent), while 27 percent are in AFSC, and the remainder (21 percent) are spread throughout the rest of the Air Force

EXHIBIT V-71—Civilian Contracting Officer Distribution By Grade

Grade	Operational contracting	AFLC	AFSC	Air Force	Percent
GS-5	1	2	0	3	>1
GS-6	6	2	0	8	>1
GS-7	9	13	2	24	1
GS-8	2	4	0	6	>1
GS-9	59	145	4	208	10
GS-10	9	0	1	10	>1
GS-11	155	258	9	422	20
GS-12	165	402	187	756	37
GS-13	40	151	235	426	20
GS-14	8	53	102	163	8
GS-15	1	7	23	31	2
Total	455	1037	565	2057	100

Grade Level and Series

Nearly 90 percent of all Contracting Officers are in the grade of GS-11 and above with the largest number at the GS-12 level. This is also the case for AFLC. The largest number of contracting officers in operating MAJCOMs is at the GS-11 level and in AFSC at the GS-13 level. These distributions are reflective of the relatively lower grade structure in the operational MAJCOMs and the higher grade structure in AFSC.

As shown in Exhibit V-72, most, but not all, civilian contracting officers are in the GS-1102 occupational series. As indicated, five percent of the Air Force civilian contracting officers are not in the contracting series.

EXHIBIT V-72—PERCENT OF CONTRACTING OFFICERS IN THE GS-1102 SERIES

Grade	Operational contracting	AFLC	AFSC	Air Force
Contracting officers	455	1037	565	2057
GS-1102 series	429	965	552	1946
Percent	94	93	98	95

Education

Exhibits V-73 and V-74 provide information about the college education of Air Force civilian contracting officers. Whereas approximately 60 percent of the GS-1102 personnel in the Air Force have a degree, just 62 percent of contracting officers, those who should be the "elite" of the contracting workforce, have a degree. The Air Force Systems Command has the largest percentage holding degrees.

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EXHIBIT V-73—CONTRACTING OFFICERS WITH DEGREES

	Operational contracting	AFLC	AFSC	Air Force
Number	159	692	430	1281
Percent	35	67	76	62

EXHIBIT V-74—CONTRACTING OFFICER DEGREES

Degree	Operational contracting		AFLC		AFSC		Air Force	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Baccalaureate	115	72	522	76	258	60	895	70
Masters	43	27	162	23	168	39	373	29
Doctorate	1	>1	8	1	4	1	13	1

Types of Contracting Officer Warrants

The overwhelming majority of civilian contracting officers are Procuring Contracting Officers (87 percent), followed respectively by Administrative Contracting Officers (ACOs), Termination Contracting Officers (TCOs), Principal Administrative Contracting Officers (PACOs), Corporate Administrative Contracting Officers (CACOs), and Provisioning Item Contracting Officers (PICOs). Exhibit V-75 indicates the distribution of contracting officer warrants by type. The first three columns indicate the number of warrants (by type) between the Operational Contracting organizations, AFLC, and AFSC and the relative proportion of warrant types expressed in a percentage. For example, 395 of all PCOs are in Operational Contracting organizations; this represents 22 percent of all PCOs in the Air Force. The last column indicates the Air Force totals by warrant type.

EXHIBIT V-75—TYPES OF CONTRACTING WARRANTS

Warrant type	Operational contracting		AFLC		AFSC		Air Force	
	Percent	No.	Percent	No.	Percent	No.	Percent	No.
PCO	22	395	54	953	24	435	87	1783
ACO	19	44	33	72	48	111	11	227
TCO	24	7	41	12	35	10	1	29
CACO	0	0	0	0	100	4	>1	4
PACO	62	8	0	0	38	5	>1	13
PICO	100	1	52	0	27	0	>1	1
Total		455		1037		565		2057

Twenty-one percent of all types of contracting officers are in the operational contracting organizations, such as MAC and SAC, 52 percent are in AFLC and 27 percent are in AFSC.

CHAPTER VI—PROGRAM MANAGEMENT PERSONNEL

Unlike the contracting workforce, which is an identifiable group (although more so with respect to civilians than military), Program Management is a hybrid career field, and is somewhat unique to DOD. Program Managers are drawn from many different disciplines and occupations, normally within the acquisition career field. Program Management is, thus, a supra-functional discipline. Most Program Managers have a technical, that is, scientific or engineering background, although this has not been a formal prerequisite for appointment. In addition, operational or combat-related experience has been heavily emphasized. The trend and the current policies are to appoint Program Managers that have acquisition as well as operational and technical experience.

This chapter describes the: (1) role of the Program Manager and Deputy Program Manager, and their attributes; (2) general qualifications; (3) Program Managers' authority; (4) tenure; (5) personnel management and career programs for military and civilian Program Management personnel; (6) characteristics of Program Managers and Deputy Program Managers in terms of level of education, training, experience, and tenure in the job; and finally, (7) an overview of several typical program offices in each of the services, analyzing the level of education, training, experience, and tenure of the Program Managers, Deputy Program Managers, and contracting officers.

THE PROGRAM MANAGER AND DEPUTY PROGRAM MANAGER

Role of the Program Manager and Deputy Program Manager

Program Manager

The Program Manager is the single executive focal point responsible for the successful management of the program and the accomplishment of the cost, schedule, and technical performance objectives established for successful execution of the program. Within the scope of the program, the Program Manager has broad directive authority over the planning, direction, control and utilization of resources for the approved program and over the program efforts of the supporting service activities as well as other Government agencies and the applicable contractors. The Program Manager has to lead the Program Management team, composed of specialists and experts in various functional areas.

As J. Ronald Fox observed in *Arming America: How the U.S. Buys Weapons* (1974), there are five basic functions common to program offices. These functions are:

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Program Control/Program Management. This function directs the overall system program planning, programming, cost and schedule data collection, financial management and preparation of reports.

Configuration Management. It establishes and implements policies and procedures for managing system, subsystem and item configuration to include specification and engineering change control.

Procurement and Production. This activity is responsible for managing the contracting, development and production efforts.

Engineering. This function manages the total system engineering effort, including the integration of engineering systems and subsystems and the system's technical performance.

Product Assurance or Test and Deployment. This office plans and coordinates the test program for the weapon system.

Deputy Program Manager

A Deputy Program Manager will act for the Program Manager in his or her absence and serve as the chief adviser to the Program Manager. Beyond that, the role of the Deputy Program Manager is difficult to describe because it is so varied. In some cases, there are several deputies, each advising the Program Manager on their area of functional expertise, such as logistics. In many cases, the Deputy provides the business management expertise to augment a Program Manager heavy on operational experience and light on experience in the business disciplines such as contracting and financial management. In addition, the Deputy may manage the organizational, manpower and personnel, and training functions of the Program Office. Lastly, the Deputy may serve a coordinating role in interfacing with various organizations external to the Program Office.

Attributes of Program Managers

The military services have historically preferred that the Program Manager have operational experience in order to communicate with the system's users. For example, the Program Manager for a new missile system should have operational experience to deal with the artillery experts designated to use the new systems and the logisticians who must maintain it. While some have argued that operational experience is not necessary, most experts would agree that a Program Manager must have a technical background or technical knowledge, knowledge of basic business principles, and an understanding of the acquisition policies and procedures which govern the weapons systems acquisition process. It is not necessary that the Program Manager be, for example, a contracting expert, but he must be knowledgeable of basic contracting and pricing principles. Furthermore, a Program Manager leads and integrates a team of functional experts from numerous disciplines, such as engineering, contracting, and quality assurance. As such a premium is placed on good management skills.

With respect to the appropriate mix of technical versus business management knowledge, much depends on the particular program and its stage of maturity within the acquisition life cycle. On a research and development project, for example, there might be a greater demand for technical and engineering skills as well as

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operational experience, on the part of the Program Manager. On the other hand, if the project is reaching technical maturity, it may be more appropriate to have a Program Manager more steeped in business management knowledge.

Qualifications of Program Managers

The qualifications of Program Managers, in terms of education, training, and experience, has been an area of long-standing interest. The Second Hoover Commission (1955) recommended that the Secretary of Defense establish a personnel system for support activities which provides comparable standards for selection, training, promotions and compensation for both civilian and military managers and technical personnel. It called for the development of training programs in business and industrial organizations.

In 1963, Secretary of Defense Robert McNamara set forth the basics for managing weapon system programs in a DOD Conference on Program Management. McNamara called for upgrading the status, authority and quality of Program Managers, concluding that Program Managers "hold key positions in our Military Department. Such positions demand the best managerial talents, on which the Department of Defense places full reliance for its future weapons inventories." With the promulgation of DOD Directive 5010.14 in May 1965, it became mandatory that System/Project managers and their staff have a high degree of technical and business managerial competence, supplemented by appropriate training.

The Fitzhugh Commission in 1970 recommended that the effectiveness of Program Management could be improved by establishing a career specialty code for Program Managers in each Military Department and by developing selection and training criteria that "will insure the availability of an adequate number of qualified officers. The criteria should emphasize achieving a balance between knowledge of operational requirements and experience in management."

Deputy Secretary of Defense Packard established the Defense Systems Management School (now the Defense Systems Management College) on July 1, 1971 to provide a professional education in Program Management and defense systems acquisition management. The new DOD Directive 5000.23 of 1974 established educational and training standards for Program Managers. Nonetheless, the Acquisition Advisory Group, established by Deputy Secretary of Defense Clements in April 1975, noted the failings in the "Military Departments and program offices in the detailed execution of weapon systems acquisition programs." It called *inter alia* for the strengthening of the quality and quantity of personnel directly responsible for managing programs. Again, in 1979 Donald B. Rice emphasized the necessity for the personnel systems to develop Program Managers, as indicated in the following:

> The existing incentives for effective acquisition management at the program office level are among the weakest elements in an otherwise adequately structured system, and should receive priority attention. It is recommended that DOD undertake to design, test, refine and install:

A specialized Program Manager selection process (perhaps as part of the management training program), and

A special performance evaluation system (built around criteria relevant to system acquisition) for Program Managers that will recognize and reward effective leadership of an acquisition program and, equally important, will clearly identify less-than-adequate performance.

Nonetheless, after extensive Congressional hearings highlighted a lack of progress in DOD, Congress in November 1985 adopted the Defense Procurement Improvement Act (P.L. 99-145), requiring that the Secretary of each Military Department "prescribe regulations establishing requirements for the education, training, and experience of any person assigned to duty as the Program Manager of a major defense acquisition program." These regulations are to be subject to the approval of the Secretary of Defense. It further established the following minimum experience and training criteria: the completion of the Program Management Course (PMC) at the Defense Systems Management College (DSMC), or a comparable Program Management Course at another institution; and, a minimum of eight years' experience in acquisition, support, and maintenance of weapon systems, two years of which must be in a procurement command, allowing credit for time spent pursuing a postgraduate degree in a technical or management field or attending the Program Management Course.

These statutory requirements, which became effective on July 1, 1989, were extended by DOD Directive 5000.23 to include education requirements as well as the necessity for Professional Military Education. A baccalaureate or advanced degree in a technical, scientific, or managerial field was made mandatory with the proviso that "advanced technical education of a long-term nature in service schools" could be substituted, and a master's degree was desirable.

Authority of Program Managers

The question of Program Manager authority has also been an area of concern for a number of years. DOD Directive 5010.14 (May 1965) stipulated that the Program Manager and staff "should have sufficient rank/grade and organizational stature to meet the needs of functional parity." This status, coupled with the issuance of a charter, would enable Project Managers to "independently . . . make substantive decisions regarding the direction and control of system/project efforts by in-house and contractor organizations." In 1969 the Defense Science Board Task Force *Final Report on Systems Acquisition* concluded that a "major increase in the recognition, the status, and the opportunities in Program Management may be necessary to attract and retain a larger share of the most capable career officers." In 1970 the Fitzhugh Commission (*Blue Ribbon Defense Panel*) found Program Management to be a key weakness in the defense acquisition system. Deputy Secretary of Defense David Packard took steps to improve the status and authority of Program Managers. On May 28, 1970, Packard issued a Memorandum to the Military Departments, "Policy Guidance on Major Weapon Systems Acquisition" that called for competent people and clearly defined responsibilities in the acquisition process. He also initiated the "5000 series" instructions, beginning with DOD Directive 5000.1. A cornerstone of these internal initiatives was the idea of delegating authority to Program Managers, who would be properly rewarded and given more recognition for career advancement. Program Managers were to be given written charters to establish and strengthen their authority.

The Packard Commission in 1986 observed yet again the need to delegate proper authority to Program Managers and establish short and unambiguous lines of accountability between the Program Manager and the Service Acquisition Executive. The Commission noted that:

> Authority for executing acquisition programs—and accountability for their results—has become vastly diluted . . . it is fundamental that we establish unambiguous authority for overall acquisition policy, clear accountability for acquisition execution, and plain lines of command for those with Program Management responsibility.

Tenure of Program Managers

Not only must Program Managers have requisite authority, but the duration of their appointment must be sufficient to hold them accountable for their performance. Why is the tenure of Program Managers important? According to an October 1979 Rand Corporation study, frequent changes in Program Managers can lead to "unnecessary shifts in program emphasis . . . [and] loss of direction while the newly assigned Program Managers settled in and learned their jobs" (*Acquisition Policy Effectiveness: Department of Defense Experience in the 1970s*). A short tenure tends to focus emphasis on the near-term and does not lead to a long-term commitment to the program. Program results are suboptimized because immediate decisions often have a significant impact in the long-term, but the individual making the decision will no longer be accountable. Decisions including trade-offs (nearly all program decisions) often involve choosing between a short-term versus long-term cost or benefit. The Rand study noted that even experienced Program Managers transferred to new programs must then learn the background of the new program, master a great deal of technical information, and establish a network of functional and organizational contacts before becoming fully effective. According to this study, longer "tenure on the job has the advantage that it reduces the number of program leadership changes and increases the fraction of program lifetime in which the Program Manager is well equipped to handle his job."

The problem of adequate tenure is long-standing. The Second Hoover Commission observed in its 1955 Report that the two year average tenure of military Program Managers was too short. In their 1962 treatise, *The Weapons Acquisition Process: An Economic Analysis,* Peck and Scherer noted that the rapid turnover of military officers in Program Management continued to be a chronic problem, with the average Program Manager's tenure at that time identified between 26 and 32 months. In 1965 Deputy Secretary of Defense Cyrus Vance stipulated in DOD Directive 5010.14 (May 4,

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1965) that personnel considered for assignment as project or systems managers "should be those who can be expected to be available for at least three years". In 1970 the Fitzhugh Commission *(Blue Ribbon Defense Panel)* observed that tenure was still a problem and recommended that:

> The duration of assignments should be increased, and should be as responsive to the requirements of the job as to the career plan of the officer. Officers continued on an assignment for these reasons should not be disadvantaged in opportunity for promotion.

The Fitzhugh Commission further recommended that in technical assignments, an officer's replacement should be assigned to the job sufficiently in advance of his predecessor's departure to provide continuity.

The services committed themselves to extending the tenure of Program Managers in the early 1970s. As part of the effort to strengthen Program Management in the Department of Defense, DOD Directive 5000.23 was promulgated on November 26, 1974 and incorporated a number of previous recommendations in this area. It stipulated that the change in Program Managers should occur, if necessary, near major program milestones. An accompanying memorandum stated, moreover, that tenure should not be less than 4 years.

Improvements in Program Manager tenure appeared, however, to be quite slow and at the margin. This was confirmed by the October 1979 Rand Corporation study (*Acquisition Policy Effectiveness: Department of Defense Experience in the 1970s*). This study noted that the five year moving average tenure of Program Managers between 1961 and 1965 was 18 months. By 1969, it had increased to 26 months. By 1976, the average tenure was 32 months. It is unclear why the tenure of Program Managers was increasing, but the Rand report speculated that there may be several factors at work.

> The data thus shows a steady movement in the direction desired by Mr. Packard's guidance, and in this sense there has been compliance with OSD policy. But, as in so many instances, a direct casual connection between these elements of policy and practice cannot be established. The new policy may simply have affirmed a need for longer tenures already accepted and acted on by the services. Another possibility is that we are observing one aspect of some broader movement toward longer tours of duty, carrying along Program Managers as part of a wider group of officers. Because of the aggregated data base at the Defense Manpower Data Center, we were not able to test this possibility. We suspect that the increased tenures observed are the combined perceptions of the need for greater Program Management continuity, and a significant reinforcement provided by OSD's policy guidance.

However, in the *Defense Resource Management Study Final Report,* issued in February 1979, Donald B. Rice observed that recommendations "for lengthened tenure in project management assignments have emerged from every important study of system acquisition over the last twenty years. Implementation of such recommendations is still needed."

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In 1981 then Deputy Secretary of Defense Carlucci established the Acquisition Improvement Program and delineated 32 initiatives (the "Carlucci Initiatives"). One initiative noted that Program Managers play a key role in the acquisition process and called for lengthening the assignment period of Program Managers. Reflecting the fact that tenure had not increased significantly in the early 1980s, the Defense Procurement Reform Act of 1984 (P.L. 98-525) was enacted in October 1984. The law stipulates that "the tour of duty of an officer of the armed forces as a Program Manager of a major defense acquisition program shall be (A) not less than four years, or (B) until completion of a major program milestone (as defined in regulations prescribed by the Secretary of Defense)." 10 U.S.C. 2435 (c).

For purposes of this report, tenure of Program Managers and Deputy Program Managers was calculated several different ways. Program Manager tenure is portrayed first in terms of major programs four or more years old—listing the date of assignment of the current Program Manager, the dates of assignment and rotation of the Program Manager assigned on the date the four year tenure requirement went into effect (October 1984) and succeeding Program Managers and the reasons for departure.

Second, the report examines all major programs in effect prior to October 1984 that have had a Program Manager appointed after that date and who has completed his or her assignment, the number of Program Managers assigned *after* October 1984, and their average tenure. Third, consideration is given to Program Managers of major programs appointed *before* October 1984, including the Program Manager assigned at the time the law went into effect and Program Managers assigned even before the program was designated as a major program.

PERSONNEL MANAGEMENT AND CAREER PROGRAMS—ARMY PROGRAM MANAGEMENT PERSONNEL

The Army has both military and civilian Program Managers (PMs) and Deputy Program Managers (DPMs) for major and non-major programs. While the basic standards and requirements for Program Managers and Deputies are applicable equally to military officers and civilian employees, the Army currently has distinctive career programs for its military and civilian personnel.

The Army has three different categories of Program Management personnel, whether military or civilian. Program Managers are at the pinnacle. This designation is used for individuals responsible for major weapon system acquisitions as defined in the statute and DOD Directive 5000.1 but may also apply to Army major programs. Normally, Program Managers are General Officers or Senior Executive Service civilians. Next are Project Managers, who are responsible for Army programs that do not meet the major program criteria of DOD Directive 5000.1 and the public law. Generally, these positions are occupied by colonels and GM-15 civilians. At the lowest level are Product Managers. These are Program Managers of non-major programs and particular commodity lines. They are normally at the rank of lieutenant colonel.

The Army has traditionally favored using military officers as Program Managers and civilians as Deputies. The rationale for this approach has been that officers have more of the multi-disciplinary skills required for Program Management positions due to the military career pattern of progressively demanding and varied assignments, combined with enrollment in higher level military and civilian educational programs. They also have operational experience that most civilians lack. Civilians tend to be less mobile but have a more highly specialized, technical background; this provides the advantages of in-depth knowledge and continuity to a program office. As a result, the Army does not normally assign civilians as Program Managers of major programs. In cases where a military Program Manager is not immediately available, a civilian may be appointed as Acting Program Manager. Because the civilian and military career programs are different, each will be treated separately.

Army Military Career Program

The development and appointment of qualified military Program Managers occurs within the framework of the Army's Materiel Acquisition Management (MAM) program. Conceived in August 1981, the MAM was established in November 1983. Its purpose was to develop selected commissioned officers in materiel acquisition through intensive training and broad-based materiel acquisition assignments, thus providing a broad, multi-disciplinary level of expertise in the acquisition process. However, the MAM program must conform to the basic regime of the Army military personnel system. It thus functions *through* rather than outside the standard Army personnel system.

Materiel Acquisition Management (MAM) Program

The MAM program may be viewed as the Army's tailoring or refinement of the Department of Defense policies for Program Management personnel. According to DA Pamphlet 600-3, Officer Professional Development and Utilization, Chapter 101, the objective of the MAM program is to develop qualified individuals to manage acquisition functions for designated equipment and weapon systems. These functions include combat development, research and development, testing, initial procurement, production, distribution, and integrated logistics support (ILS). The MAM program has criteria for entry and retention, an established career path of three distinct phases, and a training plan.

Management. As it has done with the management of the contracting career program, the Army has established a management structure for both its military and civilian personnel. Unlike the contracting career program, however, functional management responsibility for both the civilian and military career programs is assigned to the Army Materiel Command. The MAM program is centrally managed by the U.S. Army Personnel Command (PERSCOM) and the Army Materiel Command (AMC). Army Materiel Command is the Executive Agent and Proponent for the program as it has been the MACOM most involved in the functional specialties associated with MAM. The processes of selection, assignment, training, and other personnel functions for the MAM program are supported by the Officer Personnel Management System operated by Personnel Command. An annual Proponency Committee meeting is held to review the status of the program. The Committee consists of senior representatives from Army Materiel Command, Assistant Secretary of the Army (Research, Development and Acquisition), Personnel Command, Training and Doctrine Command (TRADOC), and the Army Deputy Chiefs of Staff for Logistics (DCSLOG) and Personnel (DCSPER).

Selection Criteria. Entry into this program is voluntary and competitive. Officers must apply and are selected by a central selection board. They must be in grade of captain or above with a minimum of five and one-half years service with at least six years of Active Federal Service eligibility remaining. They must have completed appropriate military schooling; possess a baccalaureate degree in business, management, engineering or science; and hold one of the 13 following acquisition related specialties or functions which are enumerated in Exhibit VI-1.

EXHIBIT VI-1—REQUIRED ACQUISITION FUNCTIONAL AREAS

Function	Code
Comptroller	45A
Program/Budget	45B
Operations Research and Systems Analysis (ORSA) General	49A
Research and Development	51A
Test and Evaluation	51B
Nuclear Weapons Research	52B
Software Engineering	53A
Hardware Engineering	53B
Automation Management	53C
Contracting and Industrial Mgt.	97A
Contract Management	97B
Industrial Management	97C
Combat Development	99A

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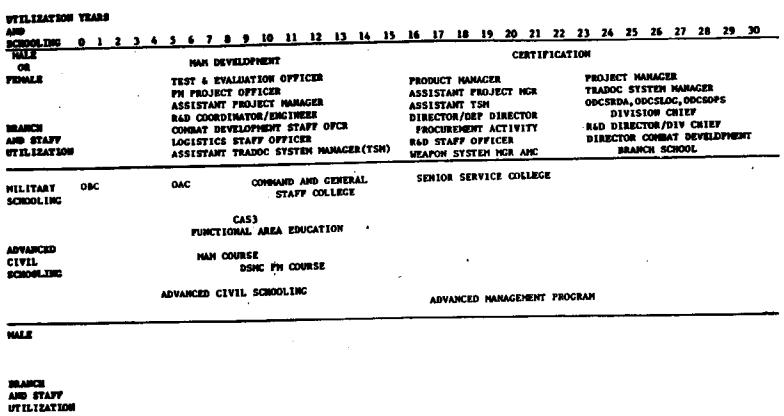
Alternatively to the 13 acquisition specialities, officers are eligible for MAM participation if they hold a Special Skill Identifier (SSI) within one of the following branches listed in Exhibit VI–2.

EXHIBIT VI–2—REQUIRED SPECIAL SKILL IDENTIFIERS

Branch	SSI
Aviation Logistics	15T
Communications-Electronics Automation	25B
Communications-Electronics Engineering	25D
Communications-Electronics Systems	25E
Communications-Electronics Materiel Integration	25F
Chemical Munitions and Materiel Management	74C
Ordnance, General	91A
Tank-Automotive Materiel Management	91B
Missile Materiel Management	91C
Munitions Materiel Management	91D
Materiel Management	92B
Aerial Delivery and Materiel	92D
Transportation, General	95A
Marine and Terminal Operations	95C
Motor/Rail Transportation	95D
Transportation Management	95E

Career Path. DA Pamphlet 600–3, Figure 101–1, which appears as Exhibit VI–3, portrays the assignment patterns and education for MAM officers. The MAM program consists of 3 sequential phases: the user development (operational) phase, the MAM development phase, and the Certified Manager phase.

EXHIBIT VI–3



The first phase (user/development) consists of the first six years of Active Federal Commissioned Service, normally time spent "with the troops." Officers will develop branch specialization and

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develop a firm operational user/support base of knowledge and experience.

The second, MAM Development Phase, runs from years 6 to 16 and is structured to provide career development as shown in Exhibit VI–4:

EXHIBIT VI–4—MAM DEVELOPMENT STAGE

Years	Rank	Assignments	Education	Training	Military Education
6–15	Cpt–Maj	Test and Evaluation, PM Project Office, Asst. Project Manager, R&D Coordinator, Engineer Combat Development Staff Officer, Logistics Staff Officer, Asst. TRADOC System Manager (TSM).	Masters (optional)	MAM Course, Program Management Course.	Officer Advanced Course, Command & General Staff.

Normally, officers selected first complete the nine week MAM course, analogous to the first phase of the Program Management Course, at the Army Logistics Management College (ALMC), and then serve in assignments to gain job experience and become proficient acquisition managers.

The last, Certified Manager phase, runs from year 16 through the remainder of the officer's career, and consists of two parts, depending upon rank as shown in Exhibit VI–5.

EXHIBIT VI–5—CERTIFIED MANAGER PHASE

Years	Rank	Assignments	Education	Training	Military Education
16–20	LTC	Product Manager, Asst. Project Manager, Asst. TSM, Director/ Deputy Proc. Activity, Weapon System Manager (AMC).	Functional Graduate Study.	Various senior and executive seminars.	Senior Service School, Industrial College of the Armed Forces.
21–30	Col	Project Manager, TRADOC System Manager, SARDA, ODCSLOG Division Chief, Director, Combat Development Branch School.			Senior Service School, Industrial College of the Armed Forces.

Selection for this phase is contingent on having met the following criteria: rank of lieutenant colonel or lieutenant colonel selectee, completion of required Professional Military Education, a baccalaureate degree or higher, completion of the MAM and Program Management Courses, and demonstrated potential and successful performance in two MAM assignments. To further comply with the requirements of DODD Directive 5000.52, lieutenant colonels must

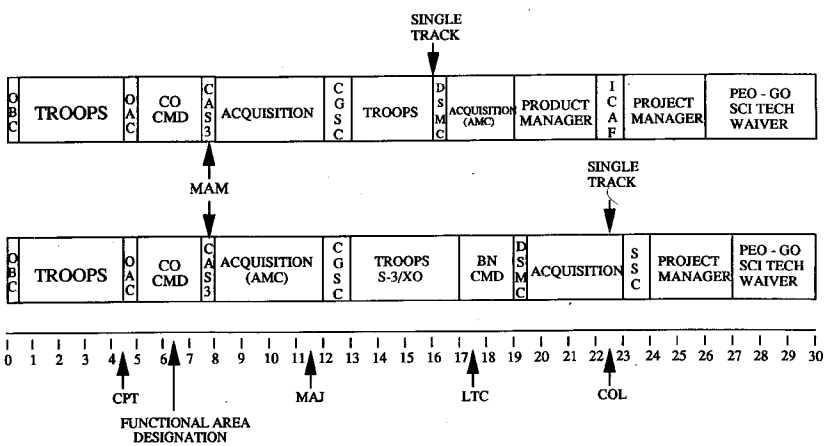
have three years' acquisition experience, one in Army Materiel Command (AMC). Colonels must have eight years' acquisition experience, with two years in AMC, plus completion of the Program Management Course.

The Army Personnel Command convenes a MAM Selection Board for the last, certification phase. Officers will be awarded the "6T" Additional Skill Identifier (ASI) once certified. Officers failing to achieve certification after three reviews may be recommended by the Board for release from the MAM program and will not be assigned to MAM positions.

Dual Tracking. The MAM career path may be either single or dual-track until year 16 (prior to entering the Certified Manager Phase) as shown in the Exhibit VI-6. Under this concept officers generally receive 4 years of acquisition experience during the first 16 years of their career whether single or dual track. Those selected at the 16th year point for MAM certification would enter single track acquisition assignments until they have received at least nine years' acquisition experience and completed the Program Management Course and, ideally, Industrial College of the Armed Forces (ICAF). At that time they would be in line for assignment as a Program Manager. They may, however, substitute increased operational experience (e.g. battalion command). As a result, they could have only 7½ years acquisition experience plus completion of the Program Management Course and a Senior Service School prior to assignment as a Program Manager.

EXHIBIT VI-6

TYPICAL ARMY MAM CAREER PROGRESSION



Program Scope. There are over 3,000 MAM identified positions from captain through colonel. Most MAM positions are located in

the Army Materiel Command, Army Training and Doctrine Command (TRADOC), the Army Secretariat, and the Army Operational Test and Evaluation Agency (OTEA). As shown in Exhibit VI-7, the Army currently has 2,293 active duty officers, 664 of which are certified, participating in the MAM program:

EXHIBIT VI-7—MAM OFFICERS DISTRIBUTION

[By rank]

Rank	Number	Percent
General Officer	18	>1
Colonel	271	12
Lieutenant Colonel	771	34
Major	876	38
Captain	357	16
Total	2293	

The number of more senior officers in the MAM program has increased since the program's inception and is a positive trend. For example, in 1984 46 percent of the MAM participants were captains, 41 percent majors, and 13 percent lieutenant colonels.

Personnel Management of Army Military Program Managers

Selections and Assignments

The Army Materiel Command Project Management Office monitors Program Manager assignments and rotation dates. PERSCOM assignment personnel, as the principal agent for assigning military personnel, also track Program Manager tenure through a system of automated programs. Two Department of Army officer boards, one for Project Managers at the colonel level and one for Product Managers at the lieutenant colonel level, convene annually to consider eligible officers for assignment to Program Manager designated vacancies.

A Colonel Project Manager Selection Board is convened to consider all colonels and promotable lieutenant colonels who are members of the MAM program, both certified and non-certified, for assignment to Project Manager designated vacancies. However, only certified MAM officers are considered for those programs defined as "Major Defense Acquisition Programs." The Project Manager Board consists of seven General Officers, with the Army Materiel Command Deputy Commanding General for Research, Development and Acquisition serving as President. Army policy is to ensure that membership include maximum representation in project management, research and development (R&D), procurement, and logistics. At least four members of the board will be serving or former Project Managers.

An Army Product Manager Selection Board convenes annually to consider all lieutenant colonels and promotable majors who are members of the MAM program, both certified and non-certified, for assignment to Product Manager designated vacancies. The Product Manager Board consists of one General Officer who serves as president, and six colonels. Members include maximum representation

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of expertise in project management, research and development, procurement, and logistics. At least four members of the board will be serving or have served as Project or Product Managers.

Promotions

The Army does not have a separate promotion board for Program Management personnel; presently they compete with other line officers within the Army competitive category. Career field floors, which set minimum numbers required for promotions, exist for all Branches and functional areas for lieutenant colonel and colonel promotion boards. A subfloor exists for the MAM Additional Skill Identifier (6T) within participating Branches and functional areas.

Generally, MAM officers are being promoted at a rate higher than the Army average. However, in fiscal year 1988, the Army lieutenant colonel primary zone selection rate was 65 percent while the MAM selection rate was 59.7 percent. The selection rate below the zone for MAM officers was 8.7 percent compared with the Army average of 6.1 percent. The MAM selection floor (minimum number promoted) was 57 officers; 102 were selected for promotion. The selection rates for lieutenant colonel are over the last several years are displayed in Exhibit VI-8.

EXHIBIT VI-8—COMPARATIVE PROMOTION RATES

[In percent]

Fiscal year	6T(MAM)	Army average
1983	86.4	71.7
1984	91.3	70.9
1985	94.8	76.4
1986	(1)	(1)
1987	81.4	69.5

[1] No board.

Performance Appraisals

Program Managers, both military and civilian, are rated by, or receive their performance appraisal, from the Program Executive Officer (PEO), and their final rating or approving official is the Service Acquisition Executive (SAE). PEOs are rated by the SAE. Thus, the performance appraisals of Program Managers and PEOs follows the acquisition management reporting structure and not the traditional chain of command.

Army Civilian Career Programs

The Army currently does not have a distinct career program for its civilian Program Managers and Deputy Program Managers. However, there are two civilian programs analogous to the military Materiel Acquisition Management (MAM) program: the Logistics and Acquisition Management Program (LOGAMP) and the Engineers and Scientists (E&S) Non-Construction (NC) Career Program. Drawing from numerous functional career fields, both are less structured and broader in scope than the MAM program. The fundamental difference is in the basic goals: MAM strives to make functional acquisition specialists out of generalists whereas the civilian programs try to make generalists out of functional specialists.

Logistics and Acquisition Management Program (LOGAMP)

Initial development of LOGAMP began within the former Headquarters, U.S. Army Materiel Development and Readiness Command (DARCOM), now Army Materiel Command, in February 1982. The program was formally established on November 10, 1983. LOGAMP is a two-track logistics/acquisition career development program designed to provide structured and controlled developmental assignments plus essential technical and managerial classroom training for high potential civilians. The program will provide competitively selected, high-potential logistics and acquisition employees in GS-12 and GS/GM-13 to 15 levels with broad multidisciplinary training and developmental assignments.

Management. LOGAMP is an Army-wide program which is centrally funded and administered. The Commander of Army Materiel Command (AMC) acts as Executive Agent, vested with Army-wide oversight responsibilities similar to those of Functional Chiefs under the Proponency concept.

The Department of Army LOGAMP Committee, is responsible for establishing policies and procedures for managing LOGAMP. Decisionmaking is by consensus and the committee is the final approving authority for all selections, terminations, graduation processes, and program policy. The AMC Commander or designated representative chairs the Committee. Other members include the Army Deputy Chiefs of Staff for Logistics (DCSLOG) and Personnel (DCSPER) and the AMC Assistant Deputy Chiefs for Research, Development, and Acquisition, and for Resources and Management. Representation on this committee reflected the heavy emphasis on logistics—for example, the former Army Deputy Chief of Staff for Research, Development, and Acquisition was excluded. It was also significant that the Committee membership was entirely military. The Army has recently restructured the Committee for greater civilian representation. Now the Committee is comprised of the Special Assistant to the DCSLOG, the Assistant Deputy for Materiel Readiness at AMC, the Deputy for Research, Development and Acquisition at AMC, the Deputy Assistant Secretary for Program Evaluation and the Director of Civilian Personnel in PERSCOM.

A LOGAMP Management Unit (LMU) at AMC headquarters operates the LOGAMP program. Functions include evaluation of training opportunities; monitoring participant intake, training, and development; and, promotion and reassignment referrals. It also includes forecasting funding requirements, providing guidance to Civilian Personnel Offices and functional managers; and, reporting program status to the LOGAMP Committee. LOGAMP advisers, normally at the GM-15 and SES level, serve as mentors for participants. They assure Individual Development Plans (IDPs) are consistent with LOGAMP goals and objectives and monitor participants' progress.

Career Path. The objective of LOGAMP is to provide a structured career path from the journeyman level (GS-12) through the Senior

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Executive Service (SES) level by properly identifying high performing individuals' training needs and satisfying those needs through a blending of work assignments and formal training at appropriate times in their careers.

The LOGAMP Committee submitted a draft LOGAMP Army Civilian Training, Education and Development System (ACTEDS) plan to PERSCOM on September 29, 1988. ACTEDS provides the career path or road-map for LOGAMP participants, setting forth procedures for training and development including recommended courses in other career fields and suggested assignments. It establishes the general length and types of training plus graduation criteria for each part.

LOGAMP has two broad career tracks consisting of six career fields: a Logistics Track consisting of the Supply, Maintenance, and Transportation career fields; and an Acquisition Track consisting of Contracting and Acquisition, Quality and Reliability Assurance, and the Engineers and Scientists (Non-Construction) career fields. In either track, there are three sequential phases.

The first phase, Enhancement of Career Specialties, targets high performing GS-12 personnel and is intended to provide comprehensive "single track" functional training in individuals' primary career fields; it also provides a source for filling key GM-13 positions by prepositioning GS-12 personnel for competition in the second phase. In this phase, individuals would broaden their experience within their functional specialty. The career pattern and graduation criteria for GS-12 "single track" participants is, typically, a two year program, including four weeks of formal "intra-track" functional training and one three month developmental assignment in another function in the participant's career field, or two 60 day assignments in two external functions within the participant's track.

The next phase, Competitive Development, is for GS/GM-13 through 15 personnel and is intended to provide structured, interdisciplinary formal training and developmental assignments between the logistics and acquisition career fields or cross-track development. Graduates provide the source for filling key GM-13 through 15 positions covered in the last phase. Again, the program length is two years and includes slightly expanded training and assignments. Participants should receive four weeks formal training in their opposite track, i.e., logistics or acquisition; two weeks formal training in their primary track specialty; and two weeks formal training in executive/management development. Participants also receive a four month assignment in any combination of logistics or acquisition. As an option, individuals may be assigned in their primary track at the executive, policy or staff level.

The last phase is the point at which graduates of the competitive development phase are placed in key LOGAMP positions. Key LOGAMP positions are those designated to be held by a GS/GM-14 or above or second level supervisory GM-13, and which encompass duties in two or more of the six LOGAMP functions.

Program Scope. Currently, 1,814 positions have been designated as key LOGAMP positions at the GM-13 through SES level; these positions have two or more logistics and one or more acquisition functions. LOGAMP graduates are being referred for key LOGAMP

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positions for which they qualify separately from other highly qualified candidates. There are 442 civilians currently participating in LOGAMP, and the program has 97 graduates.

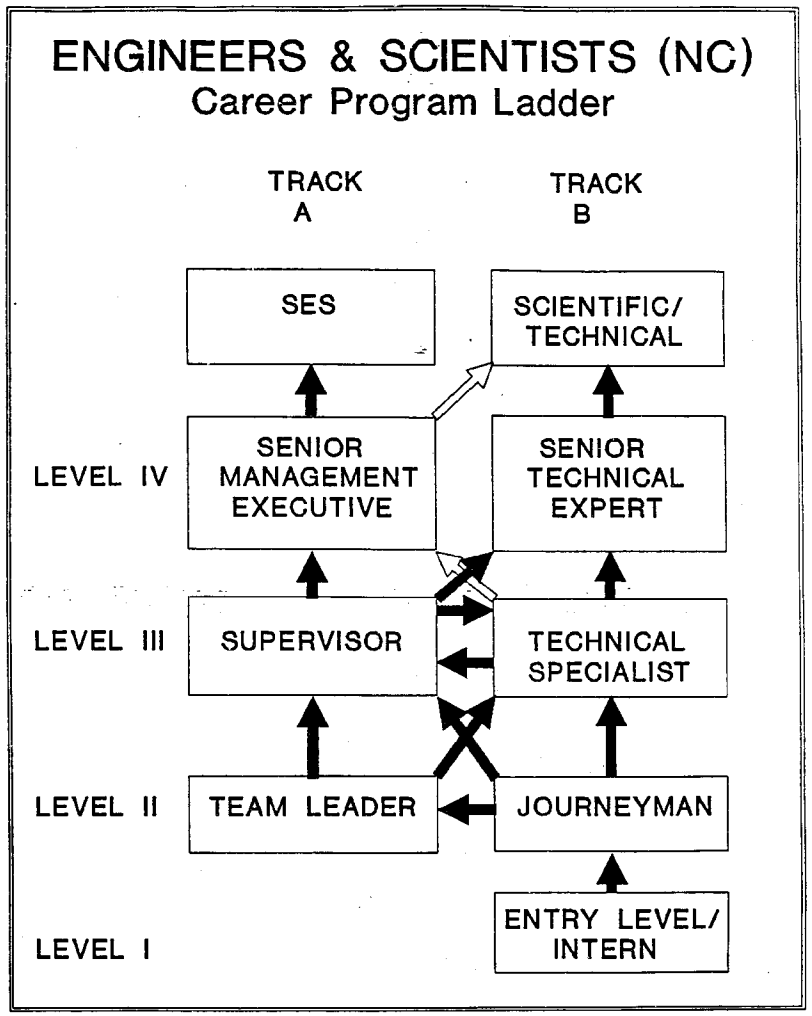
Engineering and Scientist (Non-Construction) Program

The Engineers and Scientists (E & S) Non-Construction (NC) program is a professional Army-wide Career Program that may serve as a source of civilian Program Managers and Deputy Program Managers. LOGAMP and the E & S (Non-Construction) programs overlap, as the latter is also considered as one of six career fields within the purview of the LOGAMP.

Management. The Functional Chief of this career program is the Commander of Army Materiel Command, and the Functional Chief's Representative is the Deputy Commander for Research, Development and Acquisition. This Career program has eight subcareer programs: research, system development engineering, production engineering, logistics engineering, test and evaluation engineering, quality/product assurance engineering, operations research/systems analysis, and software engineering. Each is managed by an Assistant Functional Chief's Representative (FCR), appointed by the Functional Chief's Representative. An Army Civilian Training, Education and Development System (ACTEDS) plan for the Career Program has been developed with particular emphasis on each sub-career program. The ACTEDS has not yet been approved and published. Vacancies are filled locally using local merit promotion procedures, but positions at GS-12 or above may use the Army Materiel Command Announcement Distribution System (AMCADS) to more broadly advertise the vacancy to other Federal and non-Federal job candidates.

Career Paths. The generalized career ladder at Exhibit VI-9 depicts career progression to key positions. In this concept, there are two different tracks. The PEO and Program Manager career ladder follows Track A, which is the technical management track. Track B allows engineers and scientists who wish to remain in research and development to advance in their careers from entry level to senior scientists and engineers in a parallel fashion. Lateral assignments which provide necessary cross-training are depicted along with various paths which may be followed for staff versus operating positions and technical versus supervisory/managerial positions.

EXHIBIT VI-9



FOOTNOTE: Shaded areas mean "High Probability"
Unshaded areas mean "Possible, but not typical"

There are four progression levels in the program as provided in Chapter 16 of Army Regulation 690-950 (Draft): intern level (GS-5 through GS-9/11); specialist level (GS-11 through GS-12); intermediate level (GS/GM-13 through GS-14); and the management level (GS/GM-15 and above). This document expounds the training and career development at each of the four progression levels, self-development activities, the requirement for Individual Development

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Plans (IDPs), and Master Intern Training Plans (MITPs). Thirty different training courses or Professional Military Education, for example Command and General Staff College, are listed in addition to general development activities such as select college courses, attendance at scientific seminars/symposia, and rotational training assignments.

A general career progression ladder and typical intern ladder are also included as well as specific intern ladders for general engineers and operations research analysts. In either case, interns will enter the career program at either the GS-5 or GS-7 level and will progress at annual intervals to the target grades of either GS-9 or GS-11. Accelerated promotion to the next higher grade may be granted after six months of service if performance warrants and the Office of Personnel Management concurs.

A special track within the Systems Engineering Subcareer Program has been delineated for Program Managers and Deputy Program Managers of major and non-major programs.

Program Scope. The Engineers and Scientists (Non-Construction) career program is comprised of approximately 20,000 careerists. There are approximately 43 different occupational series within the program, as displayed by Exhibit VI-10, and at least 1000 different subcategories within these series delineating the types of scientific and technical work performed by the E&S (NC) careerists.

EXHIBIT VI-10

ENGINEERING AND SCIENTISTS (Non-Construction) CAREER PROGRAM

(Occupational Series)

GS-0150--Geography
GS-0180--Psychology
GS-0401--Biology
GS-0403--Microbiology
GS-0405--Pharmacology
GS-0408--Ecology
GS-0410--Zoology
GS-0413--Physiology
GS-0414--Entomology
GS-0430--Botany
GS-0434--Plant Pathology
GS-0437--Horticulture
GS-0493--Home Economics
GS-0801--General Engineering
GS-0806--Materials Engineering
GS-0819--Envirnomental Engineering
GS-0830--Mechanical Engineering
GS-0840--Nuclear Engineering
GS-0854--Computer Engineering
GS-0855--Electronics Engineering
GS-0855--Electronics Engineering
Gs-0858--Biomedical Engineering
GS-0861--Aerospace Engineering
GS-0871--Naval Architecture
GS-0892--Ceramic Engineering
GS-0893--Chemical Engineering
GS-0894--Welding Engineering
GS-0896--Industrial Engineering
GS-1301--Physical Science
GS-1306--Health Physics
GS-1310--Physics
GS-1313--Geophysics
GS-1320--Chemistry
GS-1321--Metallurgy
GS-1340--Meterology
GS-1382--Food Technology
GS-1384--Textile Technology
GS-1515--Operations Research
GS-1520--Mathematics
GS-1529--Mathematical Statistics
GS-1530--Statistics
GS-1550--Computer Science

Personnel Management of Army Civilian Program Management Personnel

Currently, the Army does not have a civilian career program specifically intended to develop civilian Program Managers or Deputy Program Managers. The two primary feeder career programs, LOGAMP and the Engineering and Scientist (Non-Construction)

Program, may serve as sources of qualified civilian Program Managers and Deputy Program Managers but neither constitute the only source for future civilian Program Management personnel. Although the original LOGAMP concept identified Program Manager positions as key positions, the preponderance of civilian Program Managers and Deputy Program Managers come from the E&S(NC) career program. However, this is primarily a function of the technical occupational series represented in the Engineering and Scientist (Non-Construction) program rather than the efficacy of the career program. Selection of civilian Program Managers and deputies results more from serendipitous contingency than from career program execution.

Civilian selections are decentralized, using traditional civil service merit promotion and placement procedures. Selection of Deputy Program Managers is normally made by the project/product manager and is approved by the PEO. However, the selection of civilian Program Managers by the Department of Army Central Selection Board process is under current consideration in support of a proposed Acquisition Management Mission Cluster Group Program which is discussed below. At this time, there is no career program organization to assure civilian Program Managers and Deputy Program Managers receive required training, nor does the civilian personnel system require compliance with the applicable statutes and Department of Defense policy directives.

As indicated by Exhibit VI-11, the Commander of Army Materiel Command has been vested with executive management responsibility for all three programs MAM, LOGAMP, and Engineering and Scientists (Non-Construction).

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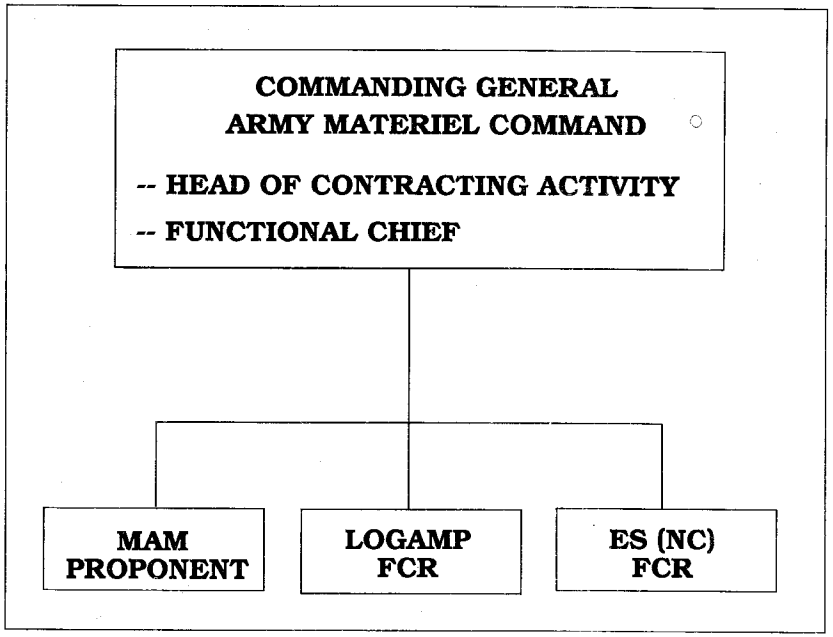
EXHIBIT VI-11



Army Career Program Enhancements for Military and Civilian Program Managers

The Army is presently working on two major career program enhancements. One concerns restructuring of the Materiel Acquisition Management Program (MAM). The other seeks to better integrate the separate military and civilian career programs into an Acquisition Management Mission Cluster Group Career Program.

Revised Materiel Acquisition Management (MAM) Program. Based on several studies, including the Army Leader Development Study Final Report published in April 1988, the Army has concluded that the current MAM program does not fully meet Army requirements for developing properly trained and experienced acquisition leaders. Accordingly, the MAM program is being restructured to better comply with current public law and Department of Defense policy on the qualifications of Program Management and acquisition personnel. The objective is to develop a dedicated pool of highly qualified military acquisition specialists (officers) to fill designated critical acquisition management positions while ensuring that the development of weapon systems reflects keen regard for current operational realities. Under the revised program, Army Materiel Command will continue to be the Proponent for the MAM and for Functional Area 51 (Research and Development). PERSCOM will continue to provide personnel management support as in

the past. This pool of officers will fill Program Management positions (Program and Product Managers) and other designated critical acquisition management positions at the grade of lieutenant colonel and above to include board selected Program Manager positions. The requirements for the current 3,000 MAM positions will include about 350 to 400 critical positions at the ranks of lieutenant colonel through General Officer.

The Army has developed two new Additional Skill Identifiers to identify MAM officers. The first is the designator 4Z which will identify both critical MAM positions on Army organization and manning documents (Tables of Distribution and Allowances) and also identify Certified MAM officers at the rank of lieutenant colonel and above who are qualified to fill those positions. The second is the 4M Additional Skill Identifier which will identify MAM Candidate Officers, but is not associated with authorized positions.

Qualification requirements for MAM candidates include the following prerequisites: (1) functional area designation in Research, Development Test and Evaluation (FA 51), Nuclear Weapons Research (FA 52), Software and/or Hardware Engineering (FA 53), Contracting and Industrial Management (FA 97), or Intelligence Aviation (15C35); (2) the rank of captain through colonel, with experience as captain or major in one of the previously mentioned functional areas; (3) for majors selected for promotion, lieutenant colonels and colonels, one must meet the MAM certification standards for the 4Z ASI and have 4 years of commissioned service remaining; (4) a baccalaureate degree or higher in technical, scientific, or managerial fields; and, (5) demonstrated performance and potential.

Applicants for the MAM candidate program may apply and express a desire to serve in Program Management and other critical MAM positions. In addition, a centralized board will select officers for the MAM program annually, considering all eligible officers during their eighth year of service, whether they apply or not.

The MAM certification process is tied to the 4Z skill identifier and identifies critical positions. This level is for officers at the ranks of major promotable to lieutenant colonel and for lieutenant colonel promotable to colonel. In both cases, a college degree and graduation from the Program Management Course is required. Additionally, certification will, as is now the case, remain tied to the requirements of P.L. 99-145 and DOD 5000.52-M (Draft).

Exhibit VI-12 portrays three notional career paths which participants in the restructured MAM program will follow. All three paths begin at the eighth year of service which corresponds to the officer's selection into the MAM program. The first two career paths will be followed by the vast majority of MAM officers. The third path would be followed in exceptional cases. The first path will be followed by most officers; it enters them into the acquisition career field and keeps them there except for one operational assignment. The second career path provides the opportunity to obtain an advanced degree through the Advanced Civil School (ACS) Program or a tour of duty with industry through the Training With Industry (TWI) program. The third path allows the officer to serve as a battalion commander while a lieutenant colonel. These career paths assume that the officer will single track in the

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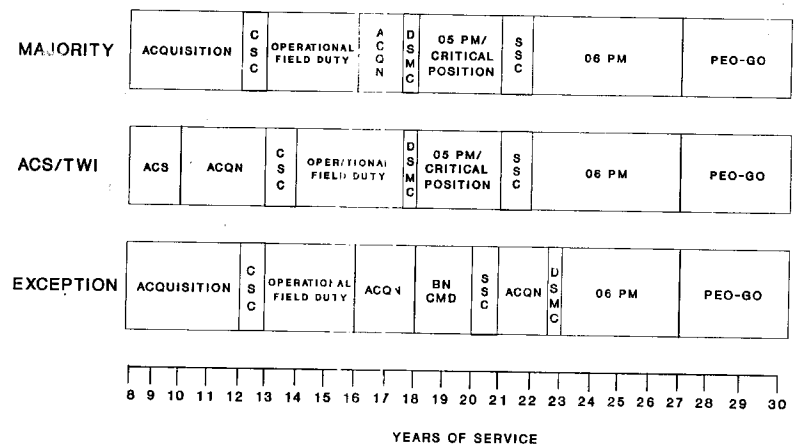
Functional Area after selection for promotion to colonel. In the first two paths, it is possible for the officer to single track as a major or lieutenant colonel. All three paths will provide for at least 8 years of acquisition experience, completion of an Intermediate Service School, an operational assignment while a major, completion of Senior Service School and the Program Management Course. It also requires at least two years experience in a procurement command and provides for service as a Project Manager or other critical acquisition job as a colonel.

EXHIBIT VI-12

MAM LEADER DEVELOPMENT PATHS

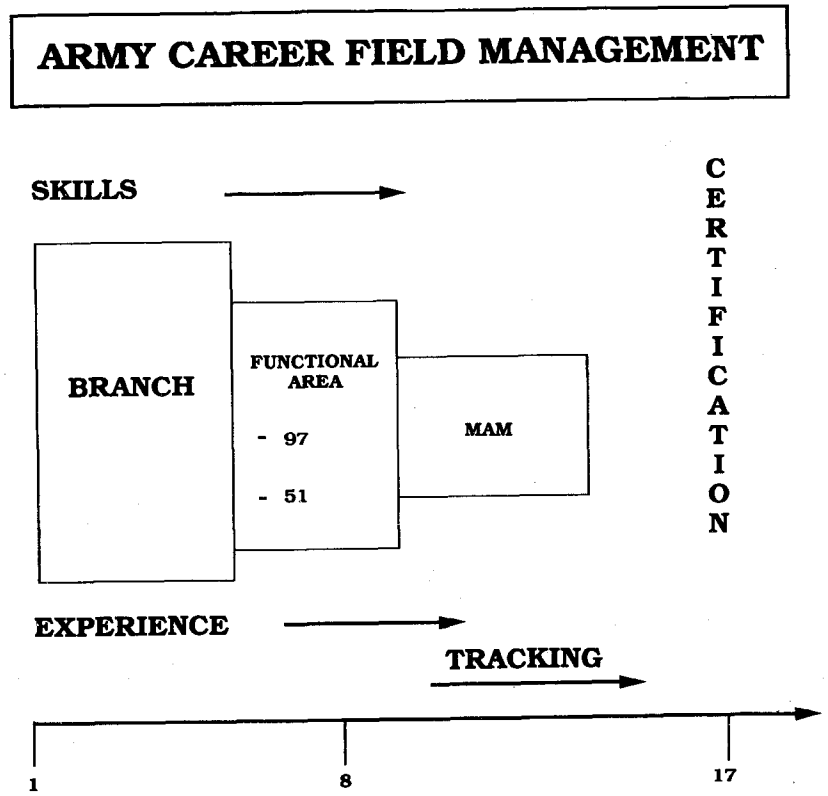


General Officer positions will be identified for fill by acquisition professionals, and assignments will be tied to the requirements in P.L. 99-145. Critical MAM (4Z) positions are all positions mandated by P.L. 99-145 as implemented by DOD Directive 5000.52 as follows: all centrally selected and General Officer Program Management positions; all PEO positions; all colonel positions authorized in lieu of General Officer requirements in Army Materiel Command; all lieutenant colonel and colonel positions reporting to a Program Manager or PEO; the Military Deputy to the Assistant Secretary of the Army (Research, Development, and Acquisition); and, selected positions in the Secretariat. In addition, selected lieutenant colonel and colonel acquisition instructor positions and other Headquarters Army and MACOM positions approved by the MAM Program Personnel Proponent office will be designated as critical.

Exhibit VI-13 indicates the relationship of experience, skills, and tracking over time. All officers will receive initial training and assignments in their basic branches.

Functional Areas 51 and 97 will constitute the core of the military acquisition career field. Officers will be managed by functional area instead of branch. Personnel coding (4M for candidates and 4Z for certified officers) will be used to further define a population of officers being developed for Program Managers, PEOs, and other designated critical acquisition positions. Officers will still be able to "dual track" in their branch and functional area through the rank of lieutenant colonel, although some will single track in their functional area. However, all colonels will "single track" in their functional area.

EXHIBIT VI-13



Acquisition Management Mission Cluster Group Career Program

In an effort to provide for joint military and civilian oversight of the development of current and future acquisition managers, the

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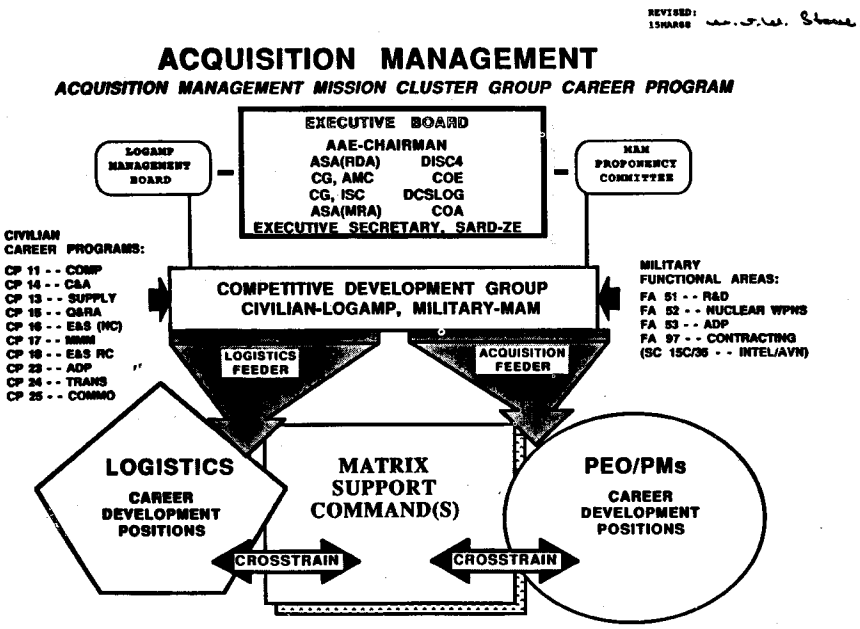
Under Secretary of the Army established on February 8, 1989, the Acquisition Management Mission Cluster Group Career Program. The Mission Cluster Group concept is intended as a comprehensive integration of acquisition civilians with military personnel into the acquisition system. The cluster group will include individuals from all career programs or career fields involved in acquisition management functions and is directed at training and developing individuals for Program Manager and PEO positions. The civilian and military systems will be merged from program planning to execution.

An Executive Board was established to provide joint military-civilian oversight for the selection, development, training and retention of selected acquisition managers for Program Executive Office (PEO), Program Management, and select Matrix Support Command organizations. The Board should establish Army policy for the program and provide an "executive level umbrella review" for the Acquisition Management portion of LOGAMP and the MAM.

The Executive Board is chaired by Army Acquisition Executive or SAE (Assistant Secretary for Research, Development and Acquisition). Other members include: Assistant Secretary for Manpower and Reserve Affairs; the Commanding Generals of Army Materiel Command and Information Systems Command; Director Information Systems, Command, Control, Communications (DISC4); the Deputy Chief of Staff for Logistics (DCSLOG); Comptroller of the Army (COA) and Chief, Corps of Engineers (COE). The Executive Secretary is the Deputy for Program Evaluation in the Army Secretariat (OASARDA), who will also serve as the AAE's representative to both the LOGAMP Management Board and MAM Proponency Committee.

Exhibit VI-14 graphically indicates the framework and relationship of civilian and military career programs under the Acquisition Management Mission Cluster Group Career Program. As indicated, the Competitive Development Group is not an office but a group of individuals who form a pool of qualified personnel for assignment to critical/key acquisition management positions. The purpose of this new program is to identify key acquisition positions and match qualified individuals to those positions. The Mission Cluster Group critical positions will require mandated training, education, and experience.

EXHIBIT VI-14



Although the final decision on position content has not yet been made by the Service Acquisition Executive, conceptually there would be Level I and II positions. Level I critical acquisition positions would include, as a minimum, Non-Major Program Managers and Deputy Program Managers of major programs. They would be filled only by Level I certified acquisition managers from the Competitive Development Group. Level II critical acquisition positions would, as a minimum, include Program Managers of major programs and positions senior to them, for example, Program Executive Officers (PEOs). These positions would only be filled by Level II certified acquisition managers. It is envisioned that there would be a certification process within the Competitive Development Group tied to each Level. Exhibit VI-15 provides a model of a career path. Criteria for entry into the program include a baccalaureate degree or advanced technical education in service Schools plus acceptance by the Acquisition Mission Cluster Group Career Program Executive Board. Level I and II requirements parallel the basic requirements of the DOD Directive 5000.52.

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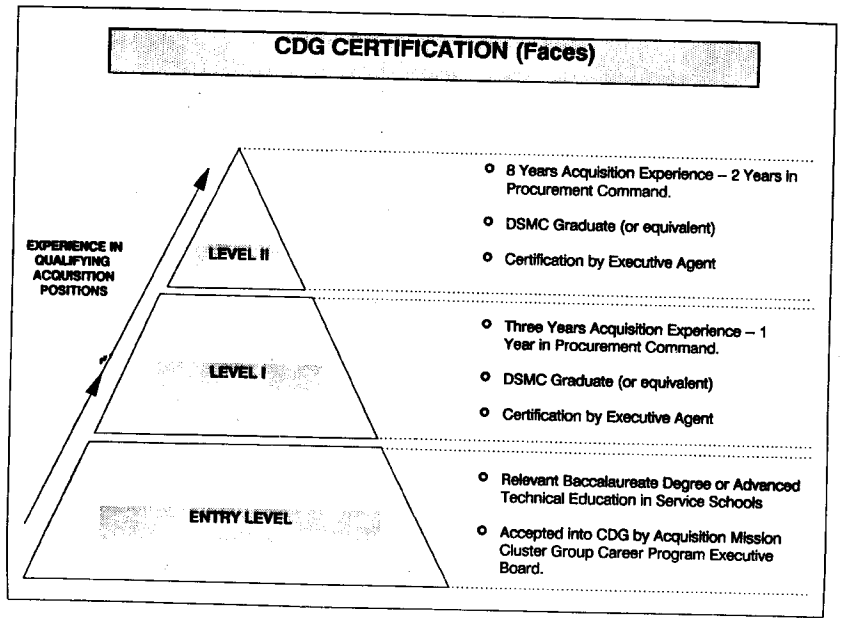
EXHIBIT VI-15



Military acquisition career coverage consists of Functional Areas 51 (R&D) and 97 (Contracting) and certain career fields such as Automatic Data Processing, nuclear weapons, and signal corps. Civilian Career Program (CP) coverage is delineated in Exhibit VI-16.

EXHIBIT VI-16—CIVILIAN CAREER FIELDS

Career program	Description	Percent
CP 11	Comptroller	17
CP 14	Contracting and Acquisition	8
CP 13	Supply Management	9
CP 15	Quality and Reliability Assurance	3
CP 16	Engineering and Scientists (NC)	26
CP 17	Materiel Maintenance Management	8
CP 18	Engineering & Scientists (Resources and Construction—RC)	16
CP 23	Automated Data Processing	10
CP 24	Transportation Management	1
CP 25	Communications	2

The military officer source for this program would come from the Material Acquisition Management (MAM) program. Civilians would come from the Acquisition portion of the LOGAMP program as well as the non-LOGAMP career programs identified above.

The current career programs, military and civilian, would feed into Competitive Development Groups (CDGs) yet to be established.

To establish these groups, a personnel data inventory of participants must be established, training programs must be developed, and key acquisition management positions must be identified. The target date for completing these tasks is March 1990. The Army Executive Agent for administration and management of certification of personnel within the Acquisition Management Mission Cluster Group has not yet been determined. PERSCOM would be responsible for managing the referral and assignment of personnel to designated positions.

CHARACTERISTICS OF ARMY PROGRAM MANAGEMENT PERSONNEL

Program Manager Tenure—Army

In analyzing the tenure data on Army Program Management of major program several data points and yardsticks will be used. Program Manager tenure is portrayed first in terms of Program Manager assignments for all major programs four or more year old. Since the enactment of P.L. 98-525 on October 19, 1984, data provided by the Army indicates there have been 65 different Program Managers (or persons acting as Program Managers) for the 22 programs 4 or more years old as is indicated in Exhibit VI-17.

The average tenure for Program Managers for these programs is 24.5 months (not including the length of assignment of the current Program Manager). This average is used in Exhibit VI-21 as it most accurately reflects the personnel turbulence and instability caused by the rotation of Program Managers. There have been four programs in which at least one Program Manager has served a minimum of 48 months, or completion of a major milestone, if one includes those assigned prior to enactment of the tenure law—the Single-Channel Ground Airborne Radio System (SINCGARS), Light Helicopter Experimental (LHX), Bradley, and Family of Heavy Tactical Vehicles (FHTV). This represents 9 percent of all individuals who have served as Program Managers, excluding incumbents.

On nine occasions the program was managed by the Deputy Program Manager until the Program Manager reported. Excluding these situations, the average tenure of the 34 previous Program Managers was 29 months. Retirement and reassignment were the two primary reasons for departure (38 and 34 percent respectively) followed by promotion (28 percent) and lastly, one case where a major milestone was completed, and one program was disestablished.

EXHIBIT VI-17—ARMY—MAJOR PROGRAMS MORE THAN 4 YEARS OLD

Major program	Current PM in since	Dates of previous PM tenure (since 84)	Months	Reason for leaving
Advanced Attack Helicopter (AAH)	JUN 1987	SEP 86–MAY 87	10	Reassigned.
		MAY 86–SEP 86	5	Deputy acting.
		JAN 83–MAY 86	40	Reassigned.
M-1 Abrams	JUL 1987	JUL 84–JUL 87	36	Reassigned.
Air Defense Command and Control System (ADCCS) (FAADC2).	APR 1988	SEP 85–APR 88	31	Reassigned.
		NOV 83–SEP 85	22	Retired.
Army Helicopter Improvement Program (AHIP).	APR 1988	FEB 88–APR 88	2	Deputy acting.
		APR 85–FEB 88	34	Retired.

EXHIBIT VI-17—ARMY—MAJOR PROGRAMS MORE THAN 4 YEARS OLD—Continued

Major program	Current PM in since	Dates of previous PM tenure (since 84)	Months	Reason for leaving
Advanced Antitank Weapons System (AAWS).	FEB 1988	OCT 82–APR 85	42	Promotion.
		JAN 86–JAN 88	24	Retired.
		JUN 82–DEC 85	42	Reassigned.
All Source Analysis System (ASAS)	JUL 1984			
Army Tactical Missile System (ATACMS)	MAR 1985	NOV 84–MAR 85	5	Deputy acting.
		APR 84–NOV 84	8	Promotion.
Black Hawk	JULY 1986	NOV 83–JUL 86	32	Retired.
Bradley	AUG 1989	JUL 85–AUG 89	49	Retired.
		SEP 83–JUL 85	22	Reassigned.
CH-47D	AUG 1987	MAY 86–AUG 87	15	Retired.
		JUL 83–MAY 86	34	Retired.
Copperhead	DEC 1985	DEC 85–APR 89	40	Disestablished.
		MAR 85–DEC 85	10	Deputy acting.
		AUG 81–MAR 85	42	Retired.
Family of Heavy Tactical Vehicles (FHTV)	JUN 1989	APR 89–MAY 89	1	Deputy acting.
		FEB 86–APR 89	38	Completed milestone.
		OCT 84–FEB 86	16	Reassigned.
Hellfire	FEB 1988	AUG 87–FEB 88	6	Deputy acting.
		JUL 84–AUG 87	37	Promotion.
Light Helicopter Experimental (LHX)	AUG 1984			
Multiple Launch Rocket System (MLRS)	SEP 1987	JAN 85–AUG 87	32	Promotion.
		DEC 83–JAN 85	25	Promotion.
Mobile Subscriber Equipment (MSE)	JAN 1986	DEC 83–JAN 86	25	Retired.
Family of Medium Tactical Vehicles (FMTV).	JAN 1989	OCT 86–JAN 89	27	Reassigned.
		AUG 84–OCT 86	26	Retired.
Patriot	FEB 1987	JUN 85–FEB 87	20	Promotion.
		NOV 83–JUN 85	19	Reassigned.
Position Location Reporting System/Joint Tactical Information Distribution System (P.L.RS/JTIDS).	JAN 1989	SEP 88–JAN 89	5	Deputy acting.
		DEC 87–SEP 88	10	Promotion.
		FEB 86–DEC 87	22	Reassigned.
		NOV 85–JAN 86	2	Deputy acting.
		NOV 83–NOV 85	24	Retired.
Single-Channel Ground and Airbourne Radio System (SINCGARS).	AUG 1986	APR 81–AUG 86	64	Promotion.
Stinger	NOV 1988	SEP 88–NOV 88	2	Deputy acting.
		JAN 86–SEP 88	30	Promotion.
		AUG 82–DEC 85	40	Retired.
Tubed Launched Optically Tracked Wire Command-Linked Guided Missile (TOW).	JUN 1987	APR 84–JUN 87	38	Reassigned.

A second measure of tenure is to look at programs in effect prior to October 1984 that have had Program Managers assigned after that date who have completed their Program Manager assignment. This represents fifteen out of twenty-two programs four or more years old, or 68 percent.

EXHIBIT VI-18—MAJOR PROGRAMS WITH PROGRAM MANAGERS APPOINTED AFTER OCT 1984 COMPLETING THEIR ASSIGNMENT

Program	Program Manager number	Length	Average tenure
AAH	1	10	
ADCCS (FAADC2)	2	5	7.5
AHIP (OH-58D)	1	31	
	1	2	
	2	34	18

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EXHIBIT VI-18—MAJOR PROGRAMS WITH PROGRAM MANAGERS APPOINTED AFTER OCT 1984 COMPLETING THEIR ASSIGNMENT—Continued

Program	Program Manager number	Length	Average tenure
AAWS (Med/Heavy)	1	24	
ATACMS	1	5	
Bradley	1	49	
CH-47D	1	15	
COPPERHEAD	1	40	
	2	10	25
FHTV	1	1	
	2	38	
	3	16	18
Hellfire	1	6	
MLRS	1	32	
FMTV	1	27	
PATRIOT	1	20	
PLRS/TIDS	1	5	
	2	10	
	3	22	
	4	2	9.8
STINGER	1	2	
	2	30	16

In only *two* of these 15 cases (FHTV where the Program Manager was reassigned after completion of a major milestone and the Bradley) did the Army comply with the Public Law. This figure is also used in Exhibit VI-21. For these 15 programs, there were 24 different individuals acting as Program Managers; their average tenure was 17 months. In 8 cases, the Deputy Program Manager was temporarily appointed as the Acting Program Manager. Excluding the temporary appointments of Deputy Program Managers, the average tenure was 25 months. The most egregious case was that of the PLRS/TIDS where there were four different Program Managers in slightly over 3 years, although two were deputies for seven months, with an average tenure of 9.8 months.

The third category is to consider those Program Managers of major programs who were appointed prior to October 1984, including the Program Manager on board at the time the public law went into effect. Also included are Program Managers who were appointed prior to designation of the program as a major program but who continued to serve as Program Managers after such designation. Excluded are all Program Managers appointed after the law went into effect, including the current Program Manager. The programs falling into this category and the average tenure is shown below in Exhibit VI-19.

EXHIBIT VI-19—PROGRAM MANAGERS OF MAJOR PROGRAMS APPOINTED BEFORE P.L. 98-525

Program	Number PMs	Average Tenure
AAH	3	39.7
AAWS	6	20
M-1 ABRAMS	6	20.2
ADCCS (FAADC2)	5	20.4
AHIP	2	39

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EXHIBIT VI-19—PROGRAM MANAGERS OF MAJOR PROGRAMS APPOINTED BEFORE P.L. 98-525—Continued

Program	Number PMs	Average Tenure
ASAS	3	18
ATACMS	2	10.5
BLACK HAWK	4	29
BRADLEY	5	24.2
CH-47	5	24.8
COPPERHEAD	4	29.5
HELLFIRE	5	21.8
LHX	2	4
MLRS	7	15.1
MSE	11	25.6
PATRIOT	4	23.5
PLRS/TIDS	5	20.2
SINCGARS	3	42.3
STINGER	6	16.8
TOW	4	30

When one considers all individuals assigned as Program Managers since the inception of the program (including individuals assigned prior to designation as a major program), the average tenure is 21.6 months.

In summary, Exhibit VI-20 portrays the average tenure for the major programs under consideration along various time lines: from designation as a major program through enactment of P.L. 98-525; all Program Managers appointed after enactment of P.L. 98-525 (other than the incumbent) and the average of all Program Managers since designation of the program as a major program up to, but excluding the incumbent. This Exhibit takes into consideration the effects of appointing acting or interim Program Managers and thus indicates the average when Deputies, acting as Program Managers, are excluded.

EXHIBIT VI-20—SUMMARY OF PROGRAM MANAGER TENURE

[Average tenure in months]

	All Program Managers	Excluding Acting Program Managers
All major programs prior to and through Oct. 1984	23.3	29.4
All major programs after October 1984	18.2	25.5
Composite average of all Program Managers	21.8	27.5

The Army acknowledges that in at least seven instances a waiver of the statutory four-year tenure requirement should have been executed by the Secretary of the Army, but this was not done. The primary reasons for leaving the job were promotion to General Officer (6) followed by retirement (4), and reassignment or organizational realignment the least occurrence. Of the six programs less than 4 years old, in only one case—the Joint Tactical Missile Defense Program (JTMDP)—has there been turnover, occasioned by retirement of the Program Manager.

Military Program Managers—Army

Program Managers—Major Programs

Twenty-seven of the 28 Program Managers assigned to major programs are military.

Education. The current Program Managers are well educated. Of the 27 Program Managers assigned to major programs, all have Master degrees; exceeding the minimum regulatory requirement for a baccalaureate degree. Two had degrees beyond the master degree level.

Training. Twenty-six of the Program Managers, or 96 percent, have completed the Program Management Course at the Defense Systems Management College. The other individual received a waiver. In addition, all have completed a Senior Service School, such as the Army War College.

Experience. Twenty-two, or 81 percent, have 8 years of acquisition experience and 26, or 96 percent, have at least two years' experience in a procurement command. In May 1988, the Army reported that 85 percent had been certified as Materiel Acquisition Management (MAM) officers and 15 percent had completed the Training With Industry (TWI) program.

Assessment. The Army's overall status of compliance with statutory and regulatory requirements for major Program Managers is shown in Exhibit VI-21.

EXHIBIT VI-21—REQUIREMENTS FOR PROGRAM MANAGERS

[Major Programs]

Requirements	Total number	Number complying	Percent
Statutory:			
Complete Program Management Course (10 U.S.C. 1622 (b)(1) effective July 1, 1987)	27	26	96
Eight years experience in Acquisition (effective July 1, 1989)	27	22	81
Two years experience (Procurement command) (10 U.S.C. 1622 (b)(2) effective July 1, 1989)	27	26	96
Four years tenure (P.L. 98-525, sec. 1243, Defense Proc. Reform Act of 1984)	15	2	13
Average tenure (months)	24.5		
Education:			
Baccalaureate	27	27	100
Intermediate Service School or Senior Service School	27	27	100

Overall, the Army is close to meeting the current statutory and regulatory requirements as well as the statutory requirements that become effective in the near future, for Program Managers of major programs in terms of education, training, and experience. It is in the area of tenure that the Army comes up significantly short.

Program Managers—Non-Major Programs

One hundred of the 128 Army non-major Program Managers are military officers.

Education and Training. These officers are well educated with 96 having a bachelors degree, 91 a masters degree and 5 above a masters degree, such as a Ph.D. degree. Eighty have completed the Program Management Course and 68 have completed Intermediate Service School, such as Command and General Staff College.

Experience. Eighty-three have three years' experience in acquisition and 77 have one year of experience in a procurement command.

Compliance with the regulatory requirements is shown in Exhibit VI-22.

EXHIBIT VI-22—REQUIREMENTS FOR PROGRAM MANAGERS

[Non-major programs]

	Total number	Number complying	Percent
Education:			
Baccalaureate degree	100	96	96
Training:			
Program Management Course	100	80	80
Experience:			
Three years (acquisition related)	100	83	83
One year (procurement command)	100	77	77

Assessment. The Army military Program Managers of non-major programs comply to a large degree with the prospective requirements in DOD Directive 5000.52. In the area of education, a very high percent have advanced degrees, while four percent lack a baccalaureate degree.

Deputy Program Managers

There are no military deputies for major programs, but there are seven for non-major programs. All meet the established draft regulatory educational requirements with at least a baccalaureate degree and close to 50 percent would meet the regulatory experience requirement in DOD Directive 5000.52; five have three years of acquisition experience and three have at least one year of experience in a procurement command. None, have completed the Program Management Course, but four have completed an Intermediate Service School.

The Army's compliance with the regulatory requirements for its Deputy Program Managers of non-major Programs is shown in Exhibit VI-23.

EXHIBIT VI-23—REQUIREMENTS FOR DEPUTY PROGRAM MANAGERS

[Non-major program]

	Total number	Number complying	Percent
Education:			
Baccalaureate	7	7	100
Experience:			
One yr (procurement command, supporting weapon system)	7	3	43

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Civilian Program Managers—Army

Program Manager—Major Program

The Army has one civilian acting as a Program Manager on a major program until replaced by a qualified military officer. That Program Manager has only 5 months' tenure in the job. This individual exceeds the educational requirements, but has not attended the Program Management Course at the Defense Systems Management College. However, this individual significantly exceeds the minimum acquisition experience requirement with over 22 years of experience.

Program Managers--Non-Major Programs

Twenty-eight of the 128 Program Managers for non-major programs are civilian. Program Managers in this category fail to comply with the minimum education and training requirements, but a high percentage meet the minimum experience requirements, as shown by Exhibit VI-24.

EXHIBIT VI-24—REQUIREMENTS FOR PROGRAM MANAGERS

[Non-major programs]

Requirements	Total number	Number complying	Percent
Education:			
Baccalaureate degree	28	19	68
Training:			
Program Management Course	28	3	11
Experience:			
Three years (acquisition related)	28	25	89
One yr (procurement command)	28	25	89

Deputy Program Managers—Major Programs

All of the Army's 28 Deputy Program Managers of major programs are civilians. Exhibit VI-25 shows that current Deputy Program Managers largely have the required education and experience. All are well educated and experienced; however, only four have completed the Program Management Course.

EXHIBIT VI-25—REQUIREMENTS FOR DEPUTY PROGRAM MANAGERS

[Major programs]

Requirements	Total Number	Number complying	Percent
Education:			
Baccalaureate degree	28	27	96
Experience:			
Three years (acquisition)	28	28	100

Deputy Program Managers—Non-Major Programs

Currently, there are 63 civilian Deputy Program Managers of non-major programs. Fourteen positions are vacant. As shown in

Exhibit VI-26, for non-major programs, the Army has more limited success in complying with the regulatory requirements of the Department of Defense. While 81 percent have a college degree, only six have completed the Program Management Course and five have completed an Intermediate Service School.

EXHIBIT VI-26—REQUIREMENTS FOR DEPUTY PROGRAM MANAGERS

[Non-major programs]

Requirements	Total number	Number complying	Percent
Education:			
Baccalaureate degree	63	51	81
Experience:			
One year experience in a procurement command	63	58	92

While only 51 have a baccalaureate degree, over 50 percent of the Deputy Program Managers have a master degree or higher, and 59 have at least three years of acquisition experience, while 58 have at least one year in a procurement command.

REPRESENTATIVE PROGRAM OFFICES—ARMY

A review of the personnel history of three major Army programs, the Multiple Launch Rocket System (MLRS), the Tactical Airborne Remotely Piloted Vehicle, and the Bradley Fighting Vehicle, serves to highlight the present situation.

Multiple Launch Rocket System (MLRS)

Program Managers

Tenure. The MLRS program has had nine different Program Managers, all colonels, since May 1976. The average tenure is 16.6 months. If one excludes the tenures of Deputy Program Managers, then the average is slightly over 19 months. The first four Program Managers served an average of 19 months; each retired from this position. Three Program Managers were promoted to general after serving an average of 20 months. Waivers were not required in the first two cases; in the last instance a waiver was not executed. The Deputy Program Manager, a civilian, twice served as acting Program Manager during transitions.

Education and Training. The last three plus the current Program Manager all have master's degrees in an engineering or scientific field and two have Ph.D.s, one in Industrial Engineering, the other in Physics. All had completed either an Intermediate or Senior Service School, but only one of the last four Program Managers had completed the Program Management Course.

Experience. All the Program Managers had previous acquisition experience, ranging from a maximum of 20 years to a minimum of 9 years. Three had previous experience as Program Managers.

Deputy Program Managers

There have been two Deputy Program Managers, both GS/GM-15s. The first served for almost 11 years in this position. The cur-

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rent Deputy assumed his duties in May 1988. He has 28 years acquisition experience, including 17 years of previous Program Management experience and has an engineering baccalaureate degree and a masters degree in management from MIT. He has not completed the Program Management Course.

Contracting Officer

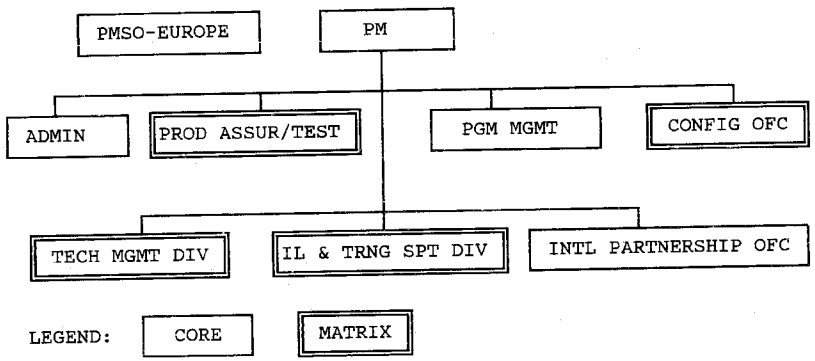
There have been three different Contracting Officers, all GS-1102-14s. They all have had 15 to 20 years experience and have averaged serving in the position for over 4 years.

Program Office Manning

Organization of the MLRS Project Management Office is depicted at Exhibit VI-27. In addition to the Program Manager's office, there are three direct support core offices plus the Program Management Support Office (PMSO)—Europe. There are also four matrix support offices as shown.

EXHIBIT VI-27

MLRS PROJECT MANAGEMENT OFFICE



The core program office is staffed with 37 individuals, 5 of whom are military officers. Thus, over 85 percent of the program office personnel are civilian; thirteen are clerical and administrative support staff. As shown in Exhibit VI-28, the breakout of civilian and military professional staff highlights the predominance of engineering skills.

EXHIBIT VI-28—CIVILIAN

Grade	Series	Title	Number
15	801	General Engineering	3
	896	Industrial Engineering	1
14	801	General Engineering	7
	896	Industrial Engineering	2

EXHIBIT VI-28—CIVILIAN—Continued

Grade	Series	Title	Number
	1101	Business and Industry	1
	345	Program Analysis	1
	301	Miscellaneous Administration and Program	1
13	345	Program Analysis	2
	346	Logistics Management	1

MILITARY

Rank	Functional activity	Title	Number
Colonel	51A	Research and Development	1
Lt. Colonel	51A	Research and Development	2
Major	51A	Research and Development	2

The military officer positions are all MAM designated position. The civilian professional positions are predominantly engineering, contracting and other technical acquisition skills. The four matrix support offices have more personnel than the core offices. Eighty-seven percent are civilians.

Tactical Airborne Remotely Piloted Vehicle (RPV)

Program Managers

Tenure. Since August 1978, this program has had six different military Program Managers, five colonels and one lieutenant colonel. The average tenure was 16 months with the longest serving 33 months. Four of the Program Managers retired from this position, and one was reassigned.

Education and Training. Data was unavailable on prior Program Managers, but the last Program Manager exceeded the prescribed military and civilian education and training standards. This individual had a baccalaureate in mathematics, a masters degree in operations research and engineering, and was a graduate of the Program Management Course as well as an Intermediate Service School (Command and General Staff College).

Experience. The last Program Manager had over 24 years of service and over 9 years of acquisition experience.

Deputy Program Managers

Tenure. There have been five different civilian Deputy Program Managers, all GM-15s. The large number is due, in part, to the merger of the Unmanned Aerial Vehicle Program office with the RPV program office. The average tenure of the previous four Deputy Program Managers was 31 months. The current incumbent has served since February 1988. Two of the previous four retired and the other two departed because of reassignment or organizational transfer.

Education and Training. All five Deputy Program Managers had baccalaureate and masters degrees in engineering and management. The current Deputy Program Manager has a Ph.D. in engi-

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neering management. Based on available Army records, it appears that none attended the Program Management Course.

Experience. No information is available on the two Deputy Program Managers who retired; however, of the three individuals still employed by the Army, the years of acquisition experience averages 23 years. The current Deputy Program Manager has 25 years acquisition experience and 12 years of previous Program Management experience.

Contracting Officers

There have been two Contracting Officers assigned to this program. The first, a GS-1102-14, served for seven years, had 23 years of contracting experience and a masters degree. The current incumbent is a GS-13 with 16 years experience and a masters degree in Contracting and Acquisition.

Program Office Manning

Forty-five personnel were assigned to the combined RPV and Unmanned Aerial Vehicle (UAV) offices; 31 to the former and 14 to the latter. Of these, 6 (or 13 percent) were military officers. Twenty-six of the civilians were professional staff: engineers, contracting, Program Management, and acquisition logistics personnel. The remainder were clerical and administrative staff. The breakout of civilian and military professional staff is shown in Exhibit VI-29. Since this program office has been disestablished, no organization chart is provided.

EXHIBIT VI-29—CIVILIAN AND MILITARY PROFESSIONAL STAFF IN RPV/UAV PROGRAM OFFICE

[CIVILIAN]

Grade	Series	Title	Number	Total
15	801	General Engineering	2	2
14	801	General Engineering	5	
	896	Industrial Engineer	2	
	855	Electronics Engineer	3	
	346	Logistics Management	1	11
13	801	General Engineering	1	
	855	Electronics Engineer	5	
	1102	Contracting	1	
	345	Program Analysis	2	
	346	Logistics Management	2	11
12	855	Electronics Engineer	1	
	345	Program Analysis	1	2
			26	

[MILITARY]

Rank	Functional activity	Title	Number
Colonel	51A	Research & Development	1
Lt. Colonel	51A	Research & Development	3
Major	97A	Contracting	1
Captain	25A	Signal	1

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Bradley Fighting Vehicle

Program Managers

Tenure. This program has been comparatively more stable with nine Program Managers having an average tenure of 28 months over a 20 year period beginning in July 1968. Two of the former Program Managers retired from this position, five were reassigned, one was selected for Senior Service School and one was the Deputy. Excluding the Deputy's tenure, the average tenure was over 31 months. All but one were military officers, and four were brigadier generals.

Education and Training. Personnel data on prior Program Managers was unavailable. The current Program Manager has a masters degree in aerospace engineering, is a graduate of the Program Management Course and the Industrial College of the Armed Forces.

Experience. The current Program Manager is a colonel with 19 years of service and over 9 years of acquisition experience.

Deputy Program Managers

There have been two Deputy Program Managers since 1975; both have been GS/GM-15s. The first served for 10 and one-half years. The current deputy has 24 years of acquisition experience, is a mechanical engineer and has an MBA, but has not completed the Program Management Course.

Contracting Officers

There have been four different Contracting Officers since 1977. There was an overlap of service in the early 1980s. The first three appeared to be educationally qualified, well trained, and averaged almost 28 years of experience. The current contracting officer has served since February 1988 and is a GM-1102-13 with a law degree and over seven years of experience.

Program Office Manning

Organization of the BFVS Project Management Office is illustrated by Exhibit VI-30.

EXHIBIT VI-30

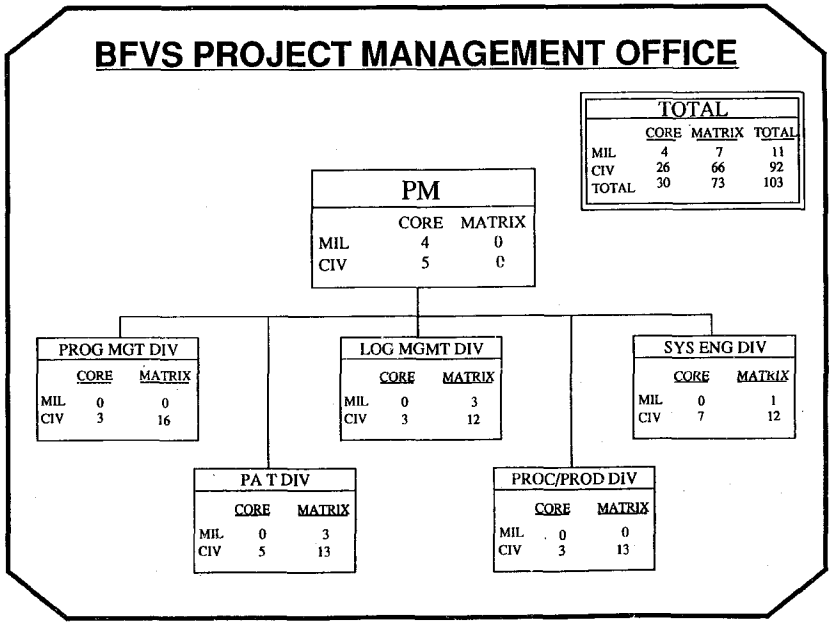

Exhibit VI-31 delineates staffing in the Bradley core Program Office. With an assigned strength of 30, the Program Office includes 4 military officers, serving in position designated for the MAM program.

EXHIBIT VI-31—MILITARY OFFICERS IN BFVS PROJECT OFFICER

Rank	FA	Title	Number	Total
COL	51A	Research & Development	1	
LTC	97C	Industrial Management	1	
LTC	97A	Contracting and Industrial Mgmt	1	
MAJ	97A	Contracting and Industrial Mgmt	1	
		Total		4

Of the 26 civilians, only 2 are secretarial. The professional breakdown is as shown in Exhibit VI-32.

EXHIBIT VI-32—CIVILIAN PROFESSIONALS IN BFVS PROJECT OFFICE

Grade	Series	Title	Number	Total
15	801	General Engineering	2	
	830	Mechanical Engineering	3	
	345	Program Analysis	1	

EXHIBIT VI-32—CIVILIAN PROFESSIONALS IN BFVS PROJECT OFFICE—Continued

Grade	Series	Title	Number	Total
	346	Logistics Management	1	
	1101	General Business and Industry	1	8
14	801	General Engineering	2	
	830	Mechanical Engineering	5	
	896	Industrial Engineering	1	
	345	Program Analysis	1	
	346	Logistics Management	2	
	1515	Operations Research	1	12
13	345	Logistics Management	2	2
12	1515	Operations Research	1	1
11	560	Budget Analysis	1	1

As indicated, there is a preponderance of general, mechanical, and industrial engineers.

There are 73 personnel in matrix support; this represents 71 percent of personnel assigned to the BFVS program. Approximately 10 percent of these are military personnel.

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PERSONNEL MANAGEMENT AND CAREER PROGRAMS—NAVY PROGRAM MANAGEMENT PERSONNEL

The Navy traditionally utilizes naval officers as Program Managers and civilians as Deputy Program Managers. Like the other services, the Navy emphasizes the importance of operational experience in effectively performing the duties of Program Management. This operational experience is complemented by the technical expertise and organizational continuity which civilian deputies have traditionally brought to the job.

Navy Military Career Program

The Navy has developed a career program for military Program Managers consisting of two sequential components, the Weapon Systems Acquisition Management Program (WSAM) for the mid-grade ranks and the Materiel Professional (MP) program for senior officers. There is also a Business/Financial Manager Career Program, which is a subsidiary, specialized program.

Weapon Systems Acquisition Management Program (WSAM)

This program was instituted in 1975 to identify, track and improve utilization of personnel with experience and education related to the acquisition field and was reconstituted in 1986 (Navy Bureau of Personnel (BUPERSINST) Instruction 1040.2C of December 1986). WSAM is the prime source of candidates for the Materiel Professional program with more than 75 percent of MP officers coming from WSAM. WSAM candidates come from 15 functional specialties including: financial management, materiel logistics support management, applied mathematics, operational analysis, operational logistics, anti-submarine warfare (ASW), command and control (C2), electronic warfare (EW), geophysics, oceanography, naval systems engineering, weapons systems engineering, aeronautical systems engineering, communications, and computer technology. The WSAM population includes Unrestricted Line Officers (URL)—those in warfighting specialties; Restricted Line (RL) officers with engineering and maintenance backgrounds; and, Staff Corps officers from supply and civil engineering.

Management. Management oversight of the WSAM program is through the Materiel Professional (MP) Standing Board and through the Navy Military Personnel Council for all personnel issues. The program is centrally managed by the Naval Military Personnel Command (NMPC), which performs personnel management functions, including assignments and career development of WSAM officers. There is a WSAM program coordinator within NMPC. The personnel records of all non-WSAM officers ordered to acquisition management billets ashore are reviewed by the WSAM coordinator. Similarly, the WSAM coordinator reviews the records of acquisition officers being assigned ashore to non-acquisition billets.

The WSAM coordinator recommends to a flag officer in NMPC whether to approve or disapprove the assignment based on the needs of the Navy. The Navy reports that during the last two years, 92 percent of the billets requiring WSAM officers have been filled by either WSAM or MP officers.

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WSAM officers are designated as either a Program Manager with the Additional Qualification Designation of "WWI" or as a WSAM program selectee who is not fully developed in the field with an Additional Qualification Designation of "WSI". There are also three separate position designations for different types of WSAM billets. "WT1" designates WSAM on-the-job-training billets located in a project management office or a field office directly supporting a project management office. The next category is "WP1" which identifies billets preferring a WSAM. The highest category is "WW1", identifying billets requiring a WSAM.

Selection Criteria. Officers voluntarily apply for the WSAM Program and are chosen by annual WSAM selection boards. The selection boards review officer records to identify those having the required management and/or technical background and select, from this group, those who have demonstrated superior performance.

Career Path. Career development is based on assignments in acquisition or Program Management, education, and training. There are eight different career paths in the WSAM for the three basic categories of officers: Unrestricted Line Officers (URL), Restricted Line (RL), and Staff Corps officers. These career paths lead logically into the Materiel Professional (MP) path at the O5–O6 level.

Unrestricted Line Career Path. There are separate URL career paths for surface warfare (Exhibit VI-33), nuclear submarine (Exhibit VI-34), and aviation officers (Exhibit VI-35). For URL officers, the WSAM designation is a secondary field to each officer's warfare specialty. URL officers are assigned to warfare specialty fields at sea and to WSAM billets ashore. All spend a considerable portion of their first 20 years at sea or in specialized training, leaving limited time for the WSAM subspecialty.

In all three categories, the officer typically enters WSAM at the rank of lieutenant in a WTI billet, following completion of a 2 to 2 ½ year technical or business curriculum at the Naval Post Graduate School. The second WSAM tour is normally a WPI and is at the lieutenant commander rank for two or more years. The third tour is at the rank of commander as either a WPI or WWI, except for aviators where it is a WWI. The fourth WSAM duty is at commander or captain and is a WWI billet. After 20 years, the officer may have from 6 to 8 years of WSAM experience.

EXHIBIT VI-33

WSAM - DESIGNATED OFFICER PROFESSIONAL DEVELOPMENT PATH (SURFACE WARFARE)

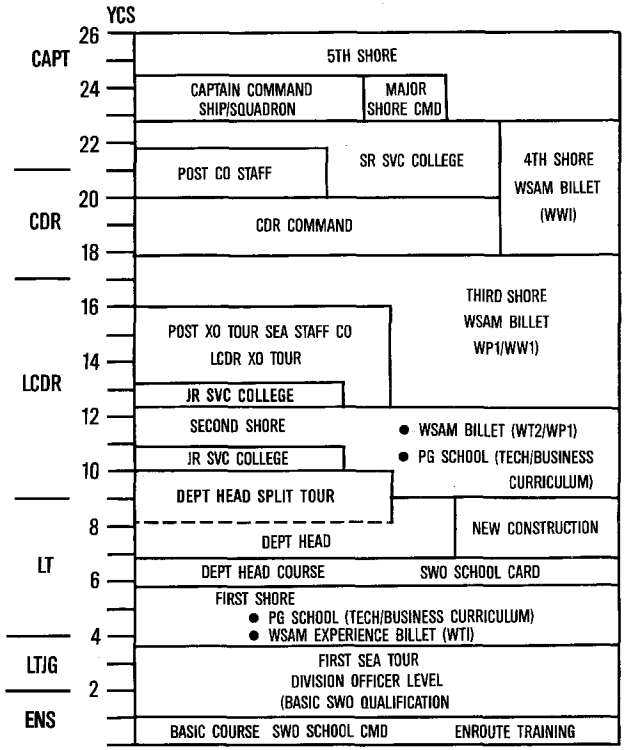

EXHIBIT VI-34

WSAM DESIGNATED OFFICER PROFESSIONAL DEVELOPMENT PATH (NUCLEAR SUBMARINE)

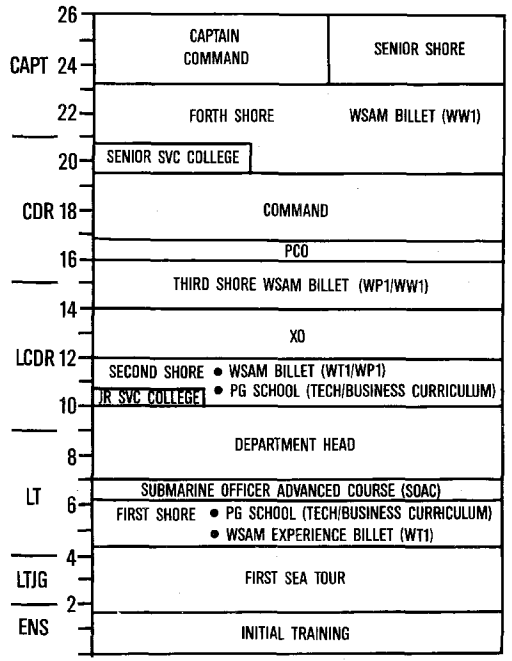

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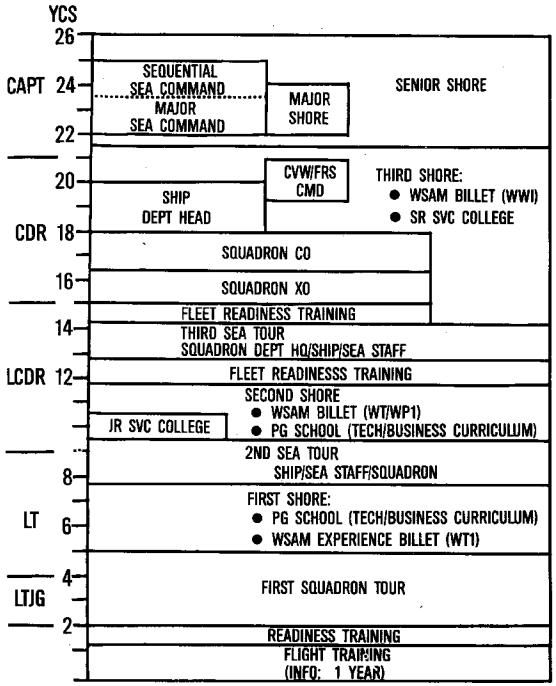
EXHIBIT VI-35

WSAM-DESIGNATED OFFICER PROFESSIONAL DEVELOPMENT PATH (AVIATION)



Restricted Line Career Path. There are three separate Restricted Line (RL) career paths for: Engineering Duty Officer (EDO), Aeronautical Engineering Duty Officer (AEDO), and Aviation Maintenance Duty Officer (AMDO) which are outlined at Exhibits VI-36, VI-37, and VI-38, respectively. All three begin with operational sea duty, but there the career paths diverge significantly.

Engineering Duty Officers and Aeronautical Engineering Duty Officers tend to specialize after transferring into WSAM assignments. The Engineering Duty Officer transfers in at the lieutenant grade whereas the Aviation Engineering Duty Officer typically has 10 years of Unrestricted Line experience before transferring in at the rank of lieutenant commander. They both spend the remainder of their career in engineering positions.

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EXHIBIT VI-36

WSAM – DESIGNATED OFFICER PROFESSIONAL DEVELOPMENT PATH (ENGINEERING DUTY OFFICER)

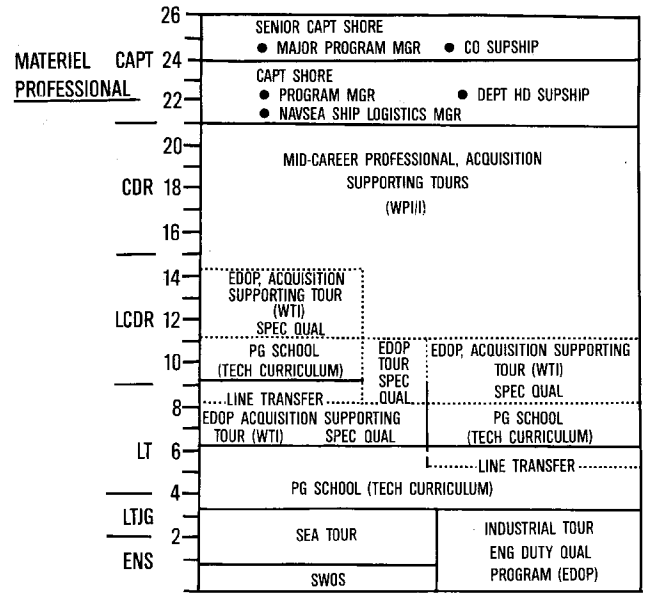

EXHIBIT VI-37

WSAM – DESIGNATED OFFICER PROFESSIONAL DEVELOPMENT PATH (AERONAUTICAL ENGINEERING DUTY OFFICER – AEDO)

DEVELOPMENT	YRS	RANK	ASSIGNMENT AREAS: HDQTRS	OPERATIONAL SUPT	PRODUCTION/REWORK	RDT&E
MATERIEL PROFESSIONAL – MANAGERIAL	26, 24, 22	CAPTAIN	PROGRAM MANAGER DIVISION DIRECTOR AED/AMD DETAILER WW, WP BILLETS	FLEET STAFF (ACOS MATERIAL) NALC (DIVISION DIRECTOR)	COMMANDING OFFICER NARF, NAVPRO WW, WP BILLETS	COMMANDING OFFICER DEPUTY PM (SPACE) DIRECTOR WW, WP BILLETS
TECHNICAL	20, 18, 16	COMMANDER	ASST PROGRAM MGR PROJECT OFFICER WP, WT BILLETS	FLEET STAFF (CLASS DESK) FLEET STAFF (CCG2, CCG5)	EXECUTIVE OFFICER TECH REP OINC DEPARTMENT HEAD WW, WP BILLETS	PROJECT OFFICER DEPARTMENT HEAD WP, WT BILLETS
	14, 12	LIEUTENANT COMMANDER	ASST PROJECT OFFICER WT BILLETS	ASST CLASS DESK PROJECT OFFICER	PROJECT OFFICER DEPARTMENT HEAD	PROJECT OFFICER WT BILLETS
BASIC	10, 8, 6, 5	ENSIGN TO LIEUTENANT	FLEET SQUADRON/ASSOCIATED SEA TOUR GRADUATE EDUCATION FLEET SQUADRON AVIATION TRAINING			URL

EXHIBIT VI-38

WSAM – DESIGNATED OFFICER PROFESSIONAL DEVELOPMENT PATH (AVIATION MAINTENANCE DUTY OFFICER – AMDO)

	YCS		
MATERIEL PROFESSIONAL – CAPT	26, 24, 22	SHORE	UPPER MANAGEMENT MAJOR PROGRAM MANAGER NAVAIR, NAVPRO, NARF, NAVMAT TYCOM, CINC WW, WP BILLETS
CDR	20, 18	SEA/SHORE	AIMD OFFICER CV OR MAJOR NAS
	16	SHORE	CONTINUED DEVELOPMENT NAVAIR, OPNAV, TYCOM, FUNCT WINGS WP, WT BILLETS
	14	SEA	OPERATIONAL PROFICIENCY CV, CVN, LHA, SODN
LCDR	12	SHORE	STAFF TOUR NAVAIR, NAC, TYCOM FUNCT WING WT BILLETS
	10	SHORE	GRADUATE EDUCATION PG SCHOOL, AFIT
LT	8, 6	SEA	BASIC DEVELOPMENT O&I MAINT
	4	SHORE	BASIC DEVELOPMENT O&I MAINT
LTJG, ENS	2	SEA	BASIC DEVELOPMENT O&I MAINT

Staff Corps Career Paths. The separate career paths for Supply Corps and Civil Engineering Corps officers are depicted by Exhibits VI-39 and VI-40 respectively. Supply Corps officers alternate between sea and shore assignments, typically spending 8 of their first 20 years at sea. They begin to obtain WSAM experience early, at the lieutenant (jg) grade, in WTI billets. By the rank of commander they will have occupied several WSAM billets and graduated to WWI positions. Supply Corps officers are primarily concerned with financial management and contracting aspects of acquisition. Civil Engineering Corp officers follow a more direct, stove-pipe development in the engineering career field.

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EXHIBIT VI-39

WSAM – DESIGNATED OFFICER PROFESSIONAL DEVELOPMENT PATH (SUPPLY CORPS OFFICER)

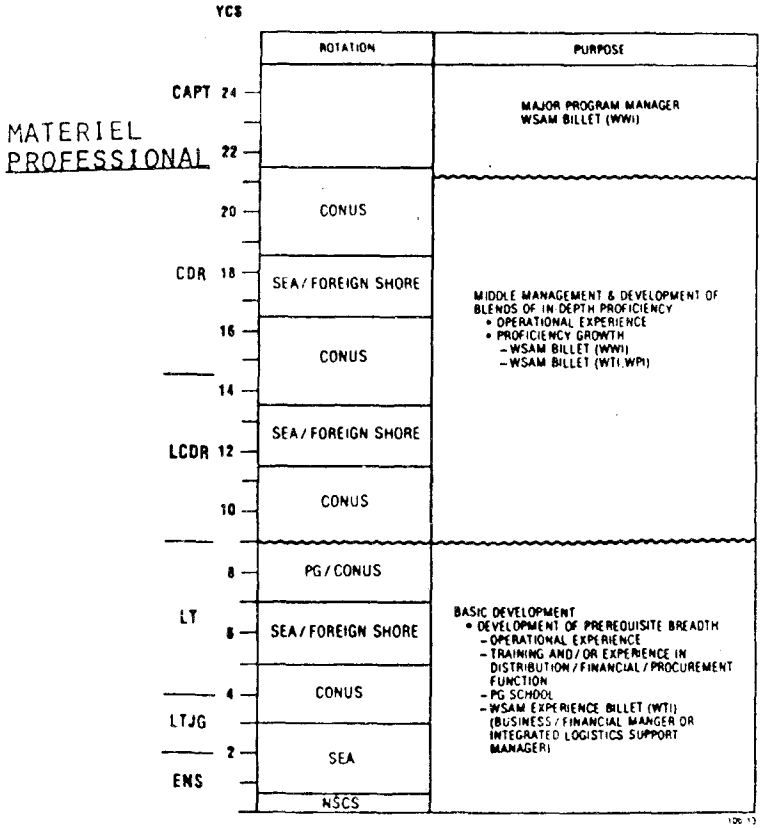
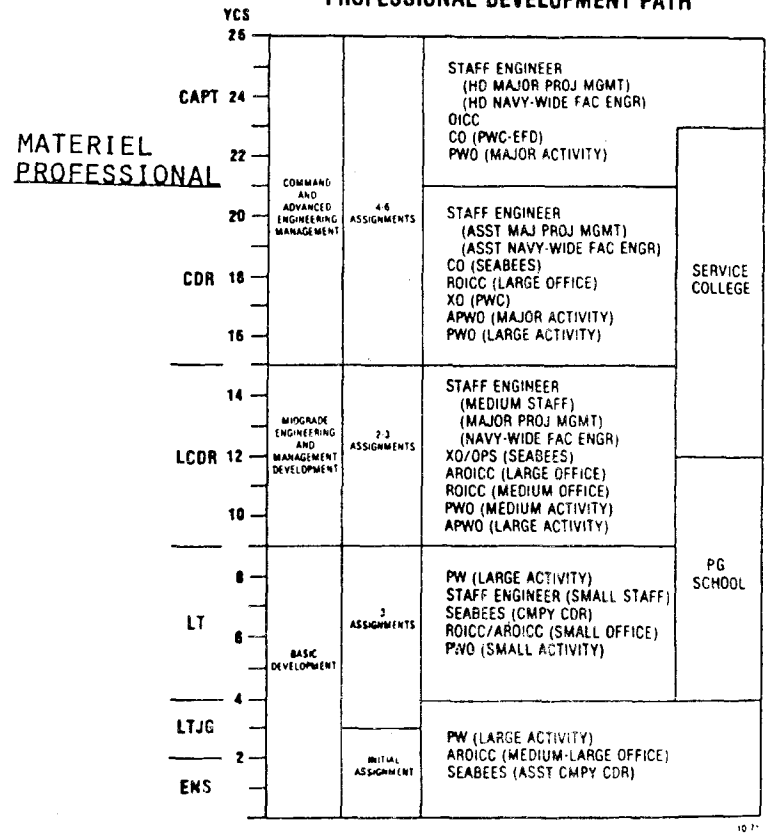


EXHIBIT VI-40

WSAM – CIVIL ENGINEER CORPS OFFICER PROFESSIONAL DEVELOPMENT PATH



Materiel Professional (MP) Program

The Materiel Professional program is the senior level counterpart to, and logical extension of, the WSAM program. Established in 1985, it is intended to attract and develop high quality officers to careers in systems acquisitions management and associated logistics support. The specialties which have been designated for the Materiel Professional Program are noted on Exhibit VI-41.

EXHIBIT VI-41—MATERIEL PROFESSIONAL DESIGNATORS

Code	Description
1200	General unrestricted line.
1210	Surface.
1220	Submarine.

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EXHIBIT VI-41—MATERIEL PROFESSIONAL DESIGNATORS—Continued

Code	Description
1230/40	Aviation.
1260	Special warfare.
1444	Engineering duty officer.
15X4	Aeronautical engineering duty.
1524	Aviation maintenance duty officer.
3104	Supply corps.
5104	Civil engineer corps.

Management. The establishment and operation of the MP program is based on the policies of two instructions, one from the Secretary of the Navy and the other from the Chief of Naval Operations. SECNAV Instruction 1040.1, "Materiel Professional (MP) Career Program" (dated March 15, 1985), provides the policy to "establish a dedicated professional community of experienced Materiel Professionals to increase effectiveness and efficiency in the timely and economical development, acquisition and support of all systems." It further provides that MP personnel will be prepared by formal education, developmental training and assignment to positions of increasing responsibility. OPNAV Instruction 1040.9, "Materiel Professional Program," dated April 20, 1985, articulates the operational procedures of the MP program, establishing organizational responsibilities and criteria.

The Deputy Chief of Naval Operations (Manpower, Personnel and Training) is responsible for MP personnel management, including assignments and career development. To assist this official, the flag-rank Director of the Military Personnel Policy Division is responsible for identifying MP billets below flag-rank and ensuring that MP personnel have formal education, training and proper assignments.

The program is guided by a Materiel Professional Standing Board composed of the Navy's top functional leadership. The Board President is the Vice Chief of Naval Operations; other members are the Assistant Secretaries (Shipbuilding and Logistics) and (Research, Engineering and Systems); the Commanders of NAVSEA, NAVAIR, SPAWAR, NAVSUP (Acting also as Chief of the Supply Corps), and NAVFAC (Acting also as Chief of the Civil Engineering Corps); and the Assistant Chiefs of Naval Operations (ACNOs) for Air, Surface Warfare, Undersea Warfare, and Manpower, Personnel and Training (MP & T). This Board meets regularly throughout the year to address any acquisition manpower, personnel and training issues related to the MP and WSAM programs.

Functions of the MP Standing Board include establishing overall MP policy, selecting candidates for the MP program, and specifically approving selectees for major MP assignments. These assignments include Program Managers of major programs and command of laboratories, shipyards, field activities, and naval aviation depots. The Naval Military Personnel Command provides support in the form of selection board services, education and training documentation as well as historical data on performance and assignments.

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The Secretary of the Navy acts as the approving authority for Standing Board actions in the following areas: changes in MP flag billets, approval of MP selectees, waivers to assignments of MP officers to non-MP billets and the assignment of non-MP officers to MP billets, and any major policy changes.

Career Path. MP officers may come from Unrestricted Line (URL), Restricted Line (RL) and the Staff Corps. It is contemplated that officers entering the MP program would logically have been in the WSAM program. The primary focus is on officers with operational, engineering and materiel management and maintenance experience with the following functional skills: financial planning, contracting or facilities contracting, logistics, engineering development, procurement and production, and system maintenance and management.

Entry into the MP career program is voluntary and normally begins at the commander (O-5) level. Candidates are selected by the Standing Selection Board. Screening for Unrestricted Line (URL) officers occurs coincidental to screening for command tours at that rank and for volunteers who apply for admittance to the program. Selection is made using "best qualified" standards based on education, experience, and potential.

The number of MP officers selected from the URL is controlled by a numerical guideline to assure the representation of each functional community—aviation, surface warfare, and submarine warfare—are available to fill billets requiring specific expertise. The board looks at officers O-5 or higher who volunteer or are in command positions and have the right skills. Officers in the Restricted Line and Staff Corps selected for captain (O-6) are also reviewed by the Standing Board.

After entry into the MP career program, officers generally will serve all subsequent tours in those functions. Exceptions require waivers approved by the Secretary of the Navy. Certain key positions are designated or reserved for MP officers. These positions include those of Program Managers, Laboratory Commanders, and Test Directors.

Program Scope

In assessing the size of the Program Manager career program for Navy officers, the MP and WSAM programs are parts of a logical continuum. There are 3,053 positions in the Program Management career field with the largest portion in the WSAM (61 percent). Specific billet grade distributions for these programs are provided in Exhibit VI-42.

EXHIBIT VI-42—WSAM/MP DISTRIBUTIONS BY RANK

Rank	WSAM	Percent	WSAM/MP positions			
			MP	Percent	Total	Percent
Flag (0-7 to 0-10)			135	11	135	13
Capt (0-6)	368	20	1065	89	1433	43
Cdr (0-5)	613	33			613	18
LCdr (0-4)	576	31			576	17
Lt (0-3)	296	16			296	9
Total	1,853	100	1,200	100	3,053	100

Exhibit VI-43 provides the proposed distribution of MP billets across the unrestricted line, restricted line and staff corps communities.

EXHIBIT VI-43—PLANNED MP BILLETS

Grade	URL	Percent	RL	Percent	SC	Percent	Total
Flag	45	33	39	29	51	38	135
Captain	179	17	386	36	500	47	1,065
Total	224	19	425	35	551	46	1,200

There are 4,872 WSAM and 699 MP officers in the Navy to man these positions. The distribution of WSAM officers is among these same three communities provided by Exhibit VI-44.

EXHIBIT VI-44—WSAM DISTRIBUTION

[By source]

Source	Number	Percent
URL	2,701	55
RL	1,237	25
Staff	934	20

The distribution of officers within the WSAM program is significant in view of the findings in an October 1985 report by the General Accounting Office that URL officers had the least acquisition experience (4.1 years), followed by RL officers (7.2 years) with Staff Corps officers having the most experience (7.4 years).

Currently, the URL officer inventory within the MP program is understrength. Exhibit VI-45 indicates the current distribution of MP captains (0-6).

EXHIBIT VI-45—DISTRIBUTION OF MP CAPTAINS

Category	Number	Percent
URL	152	21.7
Engineering duty	138	19.7
AED/AMD	107	15.3
Civil engineering	98	14.0
Supply corps	204	29.3

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Personnel Management of Navy Military Program Managers

Selections and Assignments

The Secretary of the Navy has an active and important role in the Materiel Professional program and the selection and management of Program Managers. Individuals selected by the Materiel Professional Standing Board as major system Program Managers are approved by the Secretary. Waivers to statutory and regulatory tenure, education and training and experience requirements are supposed to be approved by the Secretary.

The Director of Materiel Professional Program Personnel Policy establishes and maintains a data-base on MP personnel and MP positions. Program Managers of major programs are selected from approved MP lists; exceptions must be approved by the Secretary. The selection board considers candidate performance, experience, education and leadership and selects the best qualified officer/civilian for the job. All candidates for Program Manager positions must be in the paygrade of captain or O-6 and above. General selection criteria include technical or financial experience, masters level education or significant acquisition experience, unit command at the commander (O-5) rank or senior acquisition management experience.

Deputy Program Managers are selected by the Systems Commands (SYSCOMS). Their selection criteria includes significant management experience, proven performance in technical or financial fields, and adherence to DOD requirements.

Promotions

Program Management personnel, including officers in the MP program, compete with other line officers and staff corps officers in their respective competitive categories. For example, Engineering Duty, Aviation Engineering Duty, Civil Engineering Corps, and Unrestricted Line are each a separate competitive category. Specific guidance may be given to a promotion board by the Secretary of the Navy indicating a need for officers with particular skills. The Under Secretary of the Navy, as the Service Acquisition Executive, can express areas of concern/importance to the Secretary of the Navy for his use in preparing guidance and instructions to promotion boards. Precepts to promotion boards will identify the MP skills needed and specify current MP personnel shortages.

Designated promotion percentages are not "reserved" for Program Management personnel. However, the promotion rates of senior Materiel Professional officers are very competitive with their contemporary Unrestricted Line peers.

EXHIBIT VI-46—PERCENT PROMOTED

Year	0-6		0-7	
	MP	Non-MP	MP	Non-MP
Fiscal year 1987	122.2	55.0	4.5	2.2
Fiscal year 1988	73.3	55.7	4.0	2.3
Fiscal year 1989	55.9	54.9	3.9	2.4
Fiscal year 1990	54.3	49.2	3.2	2.2

Business/Financial Manager Career Program

The increasing importance assigned to weapons system acquisition led to the establishment of the Business/Financial Manager career development program whose purpose is to prepare an expanded population of Supply Corps commanders and lieutenant commanders for future project management assignments.

Management. In 1983, the Assistant Secretary of the Navy (Installations and Logistics) and the Commander, Naval Supply Systems Command (NAVSUP) agreed on the desirability of placing Supply Corps officers into certain major projects in a Business/Financial Management Trainee (B/FMT) status. Policy guidance is found in SECNAV Instruction 1543.1 of October 15, 1986.

The Assistant Secretary (Shipbuilding and Logistics) designated additional duty activities and weapon system acquisition projects. The Director of Contracts and Business Management, Assistant Secretary (Shipbuilding and Logistics) is responsible for the training and development of each B/FMT. The Vice Commander of NAVSUP is the program's proponent or executive agent. The B/FMT billets are centrally administered by the Fleet Materiel Support Office (FMSO).

Career Path. The B/FMT program assigns high quality junior officers to a two year tour at either NAVAIR or NAVSEA. During the training tour, the officers obtain experience in financial planning, budget formulation and execution, contract management and cost analysis. On-the-job development is supplemented by nine mandatory training courses listed at Exhibit VI–47. There are also numerous recommended courses. At the end of two years, the officers are expected to have a significant level of expertise in business and financial management. Officers successfully completing the program are nominated by the Assistant Secretary (Shipbuilding and Logistics) for screening and selection by the annual B/FM selection board.

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EXHIBIT VI–47

B/FMT MANDATORY TRAINING COURSES

- BUSINESS MANAGEMENT PACKAGE
- POLICY & ORGANIZATION MANAGEMENT PACKAGE
- TECHNICAL MANAGEMENT PACKAGE
- BUSINESS RESOURCES MANAGEMENT
- BUSINESS/FINANCIAL MANAGER'S TRAINING PROGRAM
- DIRECT COST ANALYSIS
- PRINCIPLES OF NAVY BUDGETING
- NAVY FINANCIAL MANAGEMENT AND ACCOUNTING
- ECONOMIC ANALYSIS

Source: SECNAVINST 1543.1
15 Oct 1986

Program Scope. There are currently 8 B/FMT billets, 4 each in NAVAIR and NAVSEA. In addition, there are 48 B/FM billets located in Navy activities listed in Exhibit VI–48.

EXHIBIT VI–48—BUSINESS/FINANCIAL MANAGER BILLETS

Duty activity	Number of billets
NAVAIR	23
NAVSEA	15
SPAWAR	6
Other	4
Total	48

Navy Civilian Career Program

The Navy has instituted the Civilian Materiel Professional Program, established by SECNAV Instruction 12400.7 (January 19, 1988) to develop civilian Program Managers and acquisition personnel. A Civilian Materiel Professional is an individual "responsible

and accountable for the execution of a designated Acquisition Category (ACAT) acquisition program or equivalent acquisition of goods, facilities and services or may be an individual who directly influences the execution of such programs."

Personnel Management of Navy Civilian Program Managers

Contrary to the centralized management of the military Weapons Systems Acquisition Management, Materiel Professional programs, and Business and Financial Manager programs, the Civilian Materiel Professional program is largely decentralized. Within general guidelines promulgated in SECNAV Instruction 12400.7, each Navy Systems Command (SYSCOM) responsible for management of ACAT Navy acquisition programs is responsible for developing and implementing a Civilian MP program.

Each cognizant SYSCOM is required to identify Civilian Materiel Professional billets; determine the program qualifications in terms of education, experience and training; review incumbent qualifications; and, develop a CMP candidate pool. Other major tasks include establishing career development opportunities, certifying qualified civilians, and assigning certified Civilian Materiel Professionals to these billets.

The Navy Materiel Professional (MP) Standing Board exercises policy and oversight authority over implementation of both military and civilian MP programs. There is also a Civilian MP Board of Directors, all of whom are civilians in the Senior Executive Service with the exception of two flag rank military officers. The Board is chaired by the Deputy Commander, NAVSEA, and includes: the Deputy Commanders of NAVAIR and SPAWAR, the Vice Commanders of NAVFAC and NAVSUP (both military), the Director, Plans and Programs Division of SSPO, and the Specification Control Advocate General of the Navy. This Board exercises continuing oversight and coordination over the implementation and execution of this program.

Each implementing command is required to provide an annual status report on program implementation to the Civilian Materiel Professional Board of Directors by December 1 of each year. The Board of Directors then forwards a consolidated annual assessment report to the MP Standing Board by January 1. The Board also meets as required to discuss Civilian Materiel Professional program implementation and related issues. The reports of these meetings are forwarded to the MP Standing Board and the Under Secretary of the Navy.

The Civilian Materiel Professional (CMP) Career Program for Program Managers is managed in each SYSCOM as follows: NAVSEA, the Deputy Commander, with advice of a Civilian Materiel Professional Review Board (NAVSEAINST 12400.1 of April 26, 1988); NAVAIR, the Deputy Commander (NAVAIRINST 12400.1 of January 4, 1989); NAVFAC, the NAVFAC Employee Development and Training Board (NAVFACINST 12400.12 of June 6, 1988); and, SSPO, the Director SSP (SSPINST 12400.1 of December 14, 1988). SPAWARSYSCOM is developing the Civilian MP Program within that command.

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Career Path

There is no single or uniform career progression ladder in the civilian MP program as each SYSCOM develops its own. The Navy has, however, established basic education, training and experience qualifications to include: the requirement for a baccalaureate degree in an engineering, scientific, business or managerial field (a masters degree is desirable); completion of the Program Management Course or a comparable course; plus 3 years experience in acquisition, support and maintenance of weapon systems, one year of which is in a procurement command (NAVAIR, NAVSEA, SPAWAR, AMC, AFSC or AFLC). Each participating SYSCOM may supplement these requirements.

Likewise, there is no formal civilian career field called Program Management. However, from "entry" level through "full performance" level, there are discrete functional career programs in the following areas: Engineering and Science; Contracting; Logistics; Business/Financial Management; and, Quality Assurance. However, there is no one path to follow to become qualified as a Program Manager. Grade level criteria for entry into the civilian MP program are GM–14 and above.

NAVAIR requires an additional 80 hours of federal civilian personnel management training plus completion of the following Naval Aviation Executive Institute seminars: Executive Leadership and Career Development; Contemporary Management Issues and Practices; and the Politics of National Security. Experience requirements include 2 years in a procurement command as well as 8 years of total acquisition experience, with experience in three of the following functional areas: engineering, logistics, contracting, financial management, resources management, RDT&E, technical or Program Management. Alternatively, experience in a single functional area may be credited for experience in two "distinct" areas if it occurs in different organizational environments.

NAVSEA allows for substitutability of the Program Management Course through a series of Navy-oriented program, business, technical and logistics management courses and executive leadership seminars. An additional 2 years of weapons systems-related experience for a total of 5 years experience, with a minimum of 3 years procurement command experience (an additional 2 years) are also required.

The Strategic Systems Program Office requires eight years of acquisition-related experience in the public or private sector with 2 years in a procurement command. Also, candidates must have, in addition to the degree requirement, completed a Personnel Development Program (under implementation) and one of 10 academic programs offered by leading universities, or Part I of the Program Managers Course.

NAVFAC has significantly less stringent criteria for its civilian Materiel Professionals. NAVFAC requirements include 3 years of progressive professional experience in an acquisition function and fulfillment of one of three training alternatives: completion of business-oriented executive management programs of at least four weeks duration offered by the Federal Executive Institute or a major university; attendance at business-oriented management

training courses aggregating at least four weeks offered by OPM Executive Seminar Centers or similar institutions; or a Master of Public Administration, Engineering Administration, or equivalent degrees in the last 5 years.

Program Scope

Currently there are 340 Program Management related jobs designated for Civilian Materiel Professionals. Exhibit VI-49 provides a breakdown of the 340 MP positions by grade.

EXHIBIT VI-49—CIVILIAN MATERIEL PROFESSIONAL DISTRIBUTION

[By grade]

Grade	Materiel professionals
SES	74
GM-15	207
GM-14	59

CHARACTERISTICS OF NAVY PROGRAM MANAGEMENT PERSONNEL

Program Manager Tenure—Navy

The same yardsticks and data points are used to assess tenure of Navy Program Managers as was used for the Army. Since the enactment of P.L. 98-525 in October 1984, data provided by the Navy shows that there have been 80 different Program Managers (or individuals acting as the Program Manager) for the 32 different programs four or more years old, as indicated at Exhibit VI-50. There have been eighteen programs which have had at least one Program Manager to serve for a minimum of 48 months since the inception of the program, including many assigned prior to the enactment of the tenure law. These programs are: Aegis, CVN-68/71, Amphibious Ship, New Design Submarine, CH-SE Sea Stallion, E-2C Hawkeye, E-6A, F-14D, Lamps MK III, P-3C Orion, T-45TS, Air-to-Air Missile, Standard Missile, Trident, Airborne Self-Protection Jammer, MK-50 torpedo, Sea Lance, and Distributed Surveillance System. This represents 38 percent of all individuals who have served as Program Managers, excluding the current Program Manager. The average tenure for these Program Managers was 41 months (this does not include the length of assignment of the current Program Manager). This average is used in Exhibit VI-54 as it most accurately reflects the personnel turbulence and instability caused by rotation of Program Managers. When one excludes Deputy Program Managers or individuals acting on an interim basis, the average tenure is increased to 46 months. The primary reason for leaving the position was reassignment (53 percent) followed by retirement (32 percent), interim assignments (15 percent) and one officer was relieved.

EXHIBIT VI-50—NAVY MAJOR PROGRAMS MORE THAN 4 YEARS OLD

Major program	Current PM in since	Dates of previous PM Tenure (since 84)	Months	Reason for leaving
Steam propulsion surface combatant program.	JUN 1989	SEP 85-JUN 89	45	Reassigned.
Aegis	MAY 1987	SEP 85-APR 87	19	Reassigned.
		JUL 77-AUG 85	109	Reassigned.
CVN-68/71 Nucl Aircraft carrier	AUG 1985	JUL 80-JUL 85	60	Reassigned.
Amphibious ship	APR 1985	JUL 78-APR 85	93	Retired.
Aux/special mission ship	JUN 1984			
New design submarine	AUG 1988	NOV 83-AUG 88	57	Reassigned.
SSN-688 nucl attack sub	MAY 1988	MAR 88-MAY 88	2	Interim.
		JUN 87-MAR88	9	Relieved.
		APR 86-JUN 87	14	Reassigned.
		JUN 83-APR 86	34	Retired.
Trident Ohio class	JUN 1989	JAN 89-JUN 89	6	Interim.
		APR 86-JAN 89	33	Reassigned.
		JUN 85-APR 86	8	Reassigned.
		AUG 84-JUN 85	10	Interim.
AG-E/A-6F & EA-6B	JUL 1987	SEP 84-JUL 87	34	Retired.
AV-8B Harrier	SEP 1988	MAR 86-SEP 88	30	Retired.
		DEC 85-MAR 86	3	Interim.
		JUL 83-DEC 85	29	Reassigned.
CH-53 E Sea Stallion	JUL 1989	JUL 86-JUL 89	36	Reassigned.
		MAY 81-JUN 86	62	Retired.
E-2C Hawkeye	MAY 1988	MAR 84-MAY 88	50	Reassigned.
E-6A (EC-Tacamo)	DEC 1985	SEP 85-NOV 85	4	Interim.
		AUG 81-AUG 85	48	Retired.
F-14D Tomcat	NOV 1987	DEC 83-NOV 87	48	Reassigned.
F-18 Hornet	AUG 1986	SEP 83-AUG 86	35	Reassigned.
Lamps MK III/C12 ASW Halo	AUG 1988	MAY 84-AUG 88	51	Reassigned.
P-3C Orion	DEC 1988	JAN 86-DEC 88	36	Reassigned.
		JUL 81-DEC 85	53	Reassigned.
T-45TS	JUN 1989	JUN 85-JUN 89	48	Retired.
		DEC 82-JUN 85	30	Retired.
Air-to-air missile system	FEB 1986	JUL 80-FEB 86	67	Reassigned.
Standard missile	JUL 1989	JUN 89-JUL 89	1	Interim.
		FEB 80-MAY 89	111	Retired status.
Tomahawk	SEP 1988	APR 86-SEP 88	29	Reassigned.
		DEC 82-APR 86	40	Reassigned.
Trident II (D-5)	JUN 1985	MAY 79-JUN 85	73	Retired.
Defense Supr systems (HARM AGM 88A)	APR 1989	JUL 87-APR 89	22	Reassigned.
AN/BSY-SUBACS	JUN 1987	JAN 85-JUN 87	18	Retired.
		MAY 84-JUN 87	37	Reassigned.
Anti-ship weapon system (Harpoon cruise missile).	JUN 1986	OCT 82-JUN 86	44	Reassigned.
Airborne self-protection jammer	AUG 1988	AUG 83-AUG 88	60	Retired.
MK-48 torpedo	MAR 1987	JUL 83-MAR 87	44	Reassigned.
MK-50 torpedo	MAY 1989	JUL 88-MAY 89	10	Reassigned.
		JUN 86-JUN 88	24	Retired.
		MAY 79-JUN 86	85	Retired.
AN/SQQ-89	JUN 1988	NOV 82-JUN 88	67	Reassigned.
Sea Lance (ASW stand-off)	OCT 1988	JUL 84-OCT 88	51	Retired.
Distributed surveillance system	MAY 1988	APR 82-MAY 88	73	Retired.
Phalanx close-in weapon system	JUN 1984			

The second measure of tenure is to look at programs in effect prior to October 1984 that have had Program Managers assigned after that date who have completed their Program Manager assignment (Exhibit VI-51). This represents 15 out of the 32 total major programs, or 47 percent.

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EXHIBIT VI-51—MAJOR PROGRAMS WITH PROGRAM MANAGERS APPOINTED AFTER OCT 1984 COMPLETING THEIR ASSIGNMENT

Program	Number of Program Managers	Length	Average tenure
Steam propulsion surface	1	45	45
Aegis	1	19	
	2	28	23.5
SSN-688 nuclear submarine	1	14	
	2	9	
	3	2	8.3
Trident Ohio class submarine	1	8	
	2	33	
	3	6	15.7
AV-8B Harrier	1	3	
	2	30	16.5
CH-53E	1	36	36
E-6A	1	48	
	2	4	26
P-3C Orion	1	36	36
T-45TS	1	48	48
Tomahawk	1	29	29
Defense suppression systems	1	36	
	2	24	30
AN/BSY-1	1	18	18
MK-48 torpedo	1	33	33
MK-50 torpedo	1	24	
	2	10	17
Standard	1	1	1

There were only two programs, the E-6A and the T-45TS, in which the Program Manager met the tenure requirement of 48 months. For the 15 programs in question, there were 24 different Program Managers or Acting Program Managers. This figure is also indicated in Exhibit VI-54. Average tenure was 23 months. The most egregious case was that of the SSN-688 Nuclear Submarine program in which there were 3 different Program Managers in slightly over 2 years with an average tenure of 8.3 months.

The third category is to consider those Program Managers who were appointed prior to October 1984 but which were managers of a major program. Also included are Program Managers who were appointed prior to designation of the program as a major program but who continued to serve as Program Managers after such designation. The programs falling into this category and the average tenure are depicted at Exhibit VI-52.

EXHIBIT VI-52—PROGRAM MANAGERS OF MAJOR PROGRAMS APPOINTED BEFORE P.L. 98-525

Program	Number of Program Managers	Average tenure
Aegis	3	66.7
CVN-68/71 nuclear aircraft carrier	1	60
Amphibious ship	3	47.7
Auxiliary/special mission ship	1	64
New design submarine	1	57
SSN-688 nuclear attack submarine	5	40.8
A-6E/F Intruder and EA-6B	5	42.2
AV-8B Harrier	2	32

EXHIBIT VI-52—PROGRAM MANAGERS OF MAJOR PROGRAMS APPOINTED BEFORE P.L. 98-525—Continued

Program	Number of Program Managers	Average tenure
CH-53E Super Stallion	1	62
E-2C Hawkeye	10	30.3
E-6A	1	48
F-14D Tomcat	1	48
F-18 Hornet	4	39.3
SH-60B/F Lamps	8	29.3
P-3C Orion	6	36.5
T-45TS	2	27.5
Air-to-air missile systems	2	60
Standard missile program	1	111
Tomahawk missile	3	37
Trident II missile	1	73
Defense Suppression Systems	5	47
Anti-ship weapon systems	6	30.7
Airborne self-protection jammer	2	49
MK-48 torpedo	1	44
MK-50 torpedo	1	85
AN/SQQ-89	1	67
SEA Lance ASW	1	51
Distributed surveillance system	1	73

The average tenure for Program Managers appointed during and after the designation of the program as a Major Program through enactment of the Public Law (Oct 1984) was 42.8 months.

When one includes all Program Managers of the major programs, there were a total of 135 (including Program Managers appointed prior to designation as a major program) with an average tenure of 37 months. The Navy herein presents a paradox. Program Manager tenure was longer before the enactment of the Public Law than after.

In summary, Exhibit VI-53 depicts the average tenure for the major programs under consideration along various time lines: from designation as a major program through enactment of P.L. 98-525; all Program Managers appointed after enactment of P.L. 98-525 (other than the incumbent) and, the average of all Program Managers since designation of the program as a major program up to, but excluding the incumbent. This Exhibit takes into consideration the affects of appointing acting or interim Program Managers and thus indicates the average when Deputies, acting as Program Managers, are excluded.

EXHIBIT VI-53—SUMMARY OF PROGRAM MANAGER TENURE (AVERAGE TENURE IN MONTHS)

	All Program Managers	Excluding acting Program Managers
All major programs prior to and through October 1984	42.8	43.9
All major programs after October 1984	21.4	25.6
Composite average of all Program Managers	37.3	39.1

Overall tenure for Program Managers in this sample was 41.6 months.

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Since the enactment of the Fiscal Year 1985 Defense Authorization Act, five waivers to the 4 year tour length requirement should have been granted but were not executed. The reasons for non-compliance involved either a reassignment (3 cases) or promotion (2 cases).

Military Program Managers—Navy

Program Managers—Major Programs

Currently, 35 of the 37 Program Managers assigned to major Navy programs are military.

Education. The current Navy Program Managers are well educated: all have baccalaureate degrees; 24 (65 percent) have master degrees; and, 10 have degrees above the masters level.

Training. Only 10 of the Program Managers, or 29 percent, have completed the Program Management Course. In addition, six have completed a Senior Service School.

Experience. Twenty-five of the Program Managers, or 71 percent, have met the experience requirements, that is, 8 years of acquisition experience including two years in a systems command (SYSCOM).

Assessment. The Navy exceeds the educational requirements for Program Managers of major programs. However, in the areas of training, experience and tenure, the Navy falls short of compliance. The overall status is shown in Exhibit VI-54.

EXHIBIT VI-54—REQUIREMENTS FOR PROGRAM MANAGERS

[Major programs]

Requirements	Total number	Number complying	Percent
Statutory:			
Program Management Course (10 U.S.C. 1622 (b) (1)) Effective July 1, 1987	35	10	29
Experience:			
Eight years acquisition (effective July 1, 1989)	35	25	71
Two years procurement command (effective July 1, 1989)	35	25	71
Tenure:			
Four years (P.L. 98-525, Sec. 1243, Defense Procurement Reform Act of 1984)	15	2	13
Average tenure (in months)	41		
Education:			
Baccalaureate degree	35	35	100
Intermediate or senior service school	35	5	14

Program Managers—Non-Major Programs

Forty-seven of the 50 Program Managers assigned to non-major programs are military.

Education and Training. These officers are well educated. All have a baccalaureate degree; 29 or 62 percent have masters degrees, and seven have degrees above the master's level. Although only 18 (38 percent) have completed the Program Management Course, 18 have completed the Program Management Course Basic (Phase I). Only six (13 percent) have completed an Intermediate Service School.

Experience. Only 27, or 57 percent, of these Program Managers have the required three years of acquisition experience, including one year in a Procurement Command.

Assessment. The 47 officers serving as Program Managers of non-major programs are well-educated, but generally lack the requisite training and experience. Navy compliance with the prospective requirements of DOD 5000.52 for Program Managers of non-major programs is shown in Exhibit VI-55.

EXHIBIT VI-55—REQUIREMENTS FOR PROGRAM MANAGERS

[Non-major programs]

Requirements	Total number	Number complying	Percent
Education:			
Baccalaureate degree	47	47	100
Training:			
Program Management Course	47	18	38
Experience:			
Three years acquisition	47	27	57
One year procurement command	47	27	57

Deputy Program Managers—Major Programs

There are 52 officers assigned as Deputy Program Managers on 36 major programs; this is because the Navy occasionally employs multiple Deputy Program Managers for different subsystems or functions on a major program.

Education and Training. All of the officers have a baccalaureate degree; three have masters degrees; and, one has a degree above the master's level. Twenty-six (50 percent) have completed the Program Management Course, but none have completed Intermediate Service School.

Experience. There is a significant fall-off in compliance with the experience requirements as only 18, or 35 percent of the Deputy Program Manager's meet the proposed requirements.

The Navy's overall status for its Deputy Program Managers of Major Programs is shown in Exhibit VI-56.

EXHIBIT VI-56—REQUIREMENTS FOR DEPUTY PROGRAM MANAGERS

[Major programs]

Requirements	Total number	Number complying	Percent
Education:			
Baccalaureate	52	52	100
Experience:			
Three years acquisition	52	18	35
One year procurement command	52	18	35

Deputy Program Managers—Non-Major Programs

In the 50 non-major programs there are 15 military Deputy Program Managers. Exhibit VI-57 summarizes the condition of Navy

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military officer Deputy Program Managers of non-major programs when compared with proposed education and experience requirements.

Education and Training. All of these individuals have at least a baccalaureate degree, and two have master degrees. Three have completed the Program Management Course, but none have completed an Intermediate Service School.

Experience. Only one meets the experience requirements.

EXHIBIT VI-57—REQUIREMENTS FOR DEPUTY PROGRAM MANAGERS

[Non-major programs]

Requirements	Total number	Number complying	Percent
Education:			
Baccalaureate	15	15	100
Experience:			
One year procurement command	15	1	7

Civilian Program Managers—Navy

Program Managers—Major Programs

There are two civilian Program Managers for major programs—one for the Amphibious Ship Acquisition Program and one for the MK-50 Program. The Amphibious Ship Acquisition Program Manager has been in position for 49 months and thus meets the tenure requirements of the Public Law. This individual has not completed the Program Management Course and thus does not fully meet the statutory requirements of his position even though he has a master's degree in physics from the Naval Postgraduate School and is a graduate of a Senior Service School. This civilian Program Manager served for 33 years on Active Duty in the Marine Corps and has many years operational experience in amphibious warfare. After retiring as a colonel, the next day he returned to the same job as a member of the Senior Executive Service. He received the American Society of Naval Engineers Gold Medal Award in 1988 for his significant contributions to naval engineering and is a certified Civilian Materiel Professional.

The MK-50 Program Manager was assigned in May 1989 and was selected for his background and knowledge in torpedo development and acquisition. He is a career civil servant with 17 years acquisition experience as an engineer and manager in NAVSEA, including three years as Deputy Program Manager of the MK-48 Torpedo Program. He is a qualified and designated Civilian Materiel Professional and is a graduate of the Defense System Management College Program Management Course.

The overall status of the two Navy civilian Program Managers of major programs, when compared with requirements, is shown on Exhibit VI-58.

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EXHIBIT VI-58—REQUIREMENTS FOR PROGRAM MANAGERS

[Major programs]

Requirements	Total number	Number complying	Percent
Statutory:			
Program Management Course (10 U.S.C. 1622 (b) (1) effective July 1, 1987)	2	1	50
Experience:			
Eight 8 years acquisition (effective July 1, 1989)	2	2	100
Two years procurement command (effective July 1, 1989)	2	2	100
Tenure:			
Four years (P.L. 98-525, Sec. 1243, Defense Procurement Reform Act of 1984) (other Program Manager appointed in May 1989)	1	1	100
Education:			
Baccalaureate degree	2	2	100
Intermediate or senior service school	2	1	50

Program Managers—Non-Major Programs

Of the three civilian Program Managers of non-major programs, all meet the basic educational requirements, and one has a master's degree. One has completed the Program Management Course, and the other two have completed the Basic (Phase I) of the Program Management Course. All three meet the experience requirement. Exhibit VI-59 provides data regarding the extent the three civilian Program Managers of non-major programs comply with proposed requirements.

EXHIBIT VI-59—REQUIREMENTS FOR PROGRAM MANAGERS

[Non-major programs]

Requirements	Total number	Number complying	Percent
Education:			
Baccalaureate degree	3	3	100
Training:			
Program Management Course	3	1	33
Experience:			
Three years acquisition	3	3	100
One year procurement command	3	3	100

Deputy Program Managers—Major Programs

The 37 civilian Deputy Program Managers are well educated—14 (38 percent) have a master's degree. Twelve (32 percent) have completed the Program Management Course and 21 (58 percent) have completed Intermediate Service School. An overall assessment is provided in Exhibit VI-60.

EXHIBIT VI-60—REQUIREMENTS FOR DEPUTY PROGRAM MANAGERS

[Major programs]

Requirements	Total number	Number complying	Percent
Education:			
Baccalaureate degree	37	37	100

EXHIBIT VI-60—REQUIREMENTS FOR DEPUTY PROGRAM MANAGERS—Continued

[Major programs]

Requirements	Total number	Number complying	Percent
Experience:			
Three years acquisition	37	37	100

Deputy Program Managers—Non-Major Programs

There are 26 civilian Deputy Program Managers of non-major programs. Again, they are well educated; eight (31 percent) have master degrees and one has a doctorate. Six have completed the Program Management Course. Their overall status with respect to requirements provided in Exhibit VI-61.

EXHIBIT VI-61—REQUIREMENTS FOR DEPUTY PROGRAM MANAGERS

[Non-major programs]

Requirements	Total number	Number complying	Percent
Education:			
Baccalaureate degree	26	26	100
Experience:			
One year procurement command	26	26	100

REPRESENTATIVE PROGRAM OFFICES—NAVY

A review of three major Navy program offices will serve to provide additional insight into the qualifications and structure of Navy Program Management. The three offices reviewed are the Air-to-Air Missile Systems Program at Naval Air Systems Command (NAVAIR), the Phalanx Close-In Weapon System Program (CIWS) at Naval Sea Systems Command (NAVSEA), and the Nuclear Attack Submarine Program (SSN688) in NAVSEA.

AIR-TO-AIR MISSILE SYSTEMS PROGRAM

Program Manager

Tenure. There have been five Program Managers during the life of this program. The first two Program Managers served from 1966 to 1975 while the program was a non-major program, their average tenure was 54 months. Since the program was designated a major program, the two prior Program Managers had an average tenure of 60 months. The present Program Manager, a Navy captain, has been serving since February 1986.

Education and Training. Both the current and previous Program Manager are well educated and exceed the educational standards with Master degrees. In addition, both have completed the Industrial College of the Armed Forces (ICAF). However, neither completed the required Program Management Course.

Experience. Both Program Managers had some previous acquisition experience; the first had 23 years of acquisition-related experience and the current Program Manager has had 5 years of experience. The current Program Manager is an Aeronautical Engineering Duty Officer and a Materiel Professional (MP) program member.

Deputy Program Manager

The Deputy Program Manager since 1987 has been a civilian, GM-861-15, aerospace engineer.

Education and Training. The incumbent has a baccalaureate degree in electrical engineering and a master degree in Management Science. The latter was acquired on a Navy-sponsored Sloan Fellowship at the Massachusetts Institute of Technology. This individual has not completed the Program Management Course.

Experience. The Deputy Program Manager served in the Navy submarine service as an enlisted man for 4 years prior to entering college. He has 16 years acquisition and engineering experience as a civilian working for the Navy. This includes work as a design engineer for the Naval Weapons Center; Branch Chief for the design and development of guidance/control of infrared missiles; technical manager for the Sidewinder AIM-9M missile program and Program Manager of the Sparrow AIM/RIM-7M missile program. After completion of the Sloan Fellowship, he managed the Radio Frequency Division. From 1984 to 1987, he worked as the General Manager and Vice-President of the Missile Subsystems Division of a company in the private sector before returning to the Government.

Contracting Officers

There are five different Procuring Contracting Officers (PCOs) assigned to support the Air-to-Air Missile program, all civilians. One serves as the contracting Branch Chief and PCO for the Advanced Missiles. Another PCO supports the Phoenix, the Sparrow, Advanced Air-to-Air (AAAM), and Harpoon Missile programs. All five have baccalaureate degrees and four have master degrees. Two have or are working toward their Ph.D. degree. All have completed a large number of contracting courses, including mandatory courses, and three have completed all mandatory courses. One has received two professional certification programs within the contracting career field. They average over 11 years of contracting experience with the most having 15 years and the least 8 years. Their experience has been largely in weapons systems contracting.

Program Office Manning

The Air-to-Air Missile Systems program office is fairly large. As shown in Exhibit VI-62, it consists of eight separate divisions and has a 43-person, 11 military (26 percent) and 32 civilians.

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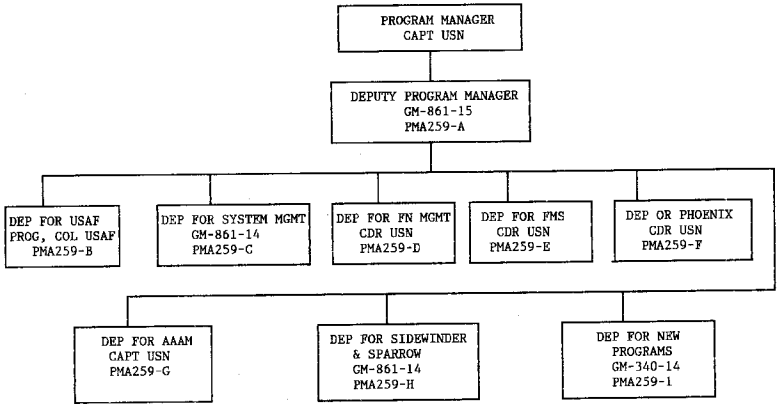
EXHIBIT VI-64



Four of the Deputates are headed by Navy commanders (0–5), who are either WSAM or MP members. The Deputy for Financial Management is a Supply Corps officer and the others are Unrestricted Line officers. The Deputy for Air Force programs is headed by an Air Force lieutenant colonel. Two of the civilian deputies—for systems management and for the Sidewinder and Sparrow missiles—are headed by GM-861-14 aeronautical engineers. The Deputy for New Programs is a GM-340-14, Program Manager. Nine of the civilians are clerical/secretarial; the other 23 are technical and professional. A breakout of the civilian and military staff is provided on Exhibit VI-63.

EXHIBIT VI-63—CIVILIAN STAFF IN AIR-TO-AIR MISSILE PROGRAM OFFICE

Grade	Series	Title	Number
15	861	Aeronautical Engineering	1
14	861	Aeronautical Engineering	2
	340	Program Manager	1
14/13	861	Aeronautical Engineering	1
13	861	Aeronautical Engineering	1
	301	General Administration	1
	560	Budget Analyst	2
	345	Program Analyst	5
12	301	General Administration	1
	560	Budget Analyst	1
	345	Program Analyst	4
9/12	560	Budget Analyst	1
5/12	560	Budget Analyst	1
7/9	560	Budget Analyst	1

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MILITARY STAFF IN AIR-TO-AIR MISSILE PROGRAM OFFICE

Rank	Designator/ AFSC (for Air Force)	Title	Number
0-6	1514	Aeronautical Engineering	1
		Duty Officer	1
0-5 (AF)	2891	Project Engineer	4
0-5	1510	Aeronautical Engineering	5
		Duty Officer	

Phalanx Close-In Weapon System (CIWS) Program Office

Program Manager

Tenure. There has been one Program Manager for the PHALANX program, a Navy captain, who has been on board since June 1984.

Education and Training. Both Program Managers have baccalaureate degrees, and the current one has a master degree. Also, both have completed the required Program Management Course.

Experience. The Program Manager only has had 5 years of acquisition experience.

Deputy Program Manager

There is a civilian, GM-15, Deputy Program Manager, who has been with the Phalanx program since June 1988.

Education and Training. This individual has a baccalaureate degree in mechanical engineering, but has not completed the Program Management Course.

Experience. The Deputy Program Manager has 24 years of acquisition management experience, serving previously as the NAVSEA Gun Division Director. In this capacity, he was responsible for the design, development, test, evaluation, and life cycle management of the various caliber guns in the Navy, including the reactivation of the 16 inch gun turret program. Previously, he worked for the Air Force Systems Command on radar systems and for General Electric on the Polaris Missile Program.

Contracting Officer

The current Procuring Contracting Officer (PCO) has been with the Phalanx program as a GM-1102-14 since April 1987. He has less than 8 years' total contracting experience, beginning as a student trainee in September 1981. Experience has been in systems contracting for fire controls and guns ranging from submarine batteries to 16 inch guns. After graduating from the Navy Contracting Intern Program in August 1985, he served as a GS-12 and then GM-13 Contract Specialist until promoted to the current position. This individual is well-educated with a baccalaureate degree in political science and a master degree in public administration.

Program Office Manning

The PHALANX Program Office is relatively small with 29 personnel assigned full-time, four of which are military (14 percent).

The office is organized into two major divisions, one technical and the other for financial and management support, as indicated in Exhibit VI-64. Two of the civilians are clerical, and the remaining 21 are professional and technical. A breakout of the civilian and military professional staff is provided in Exhibit VI-65.

EXHIBIT VI-64

PHALANX PROGRAM OFFICE
PMS 413

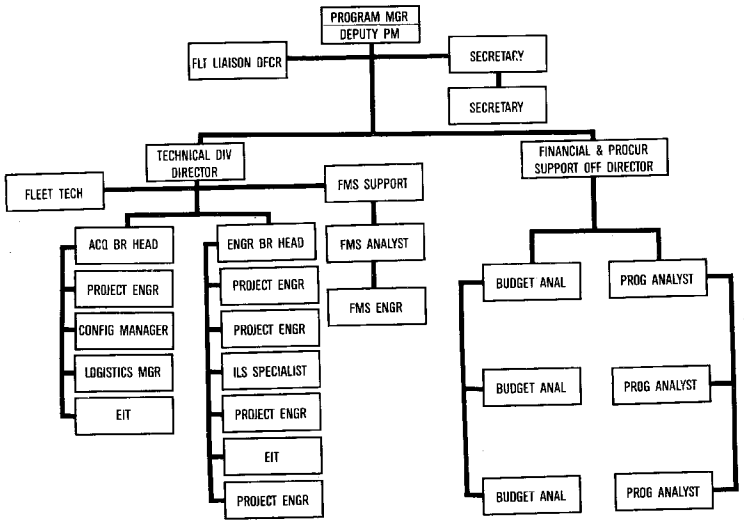

EXHIBIT VI-65—CIVILIAN STAFF—PHALANX PROGRAM OFFICE

Grade	Series	Title	Number
15	801	General Engineering	2
14	801	General Engineering	2
13	855	Electronics Engineer	2
	801	General Engineering	1
	345	Program Analyst	1
12	345	Program Analyst	1
	346	Logistics Management	1
	560	Budget Analyst	2
	830	Mechanical Engineering	1
11	346	Logistics Management	1
	801	General Engineering	1
7	830	Mechanical Engineer in Training	1
	855	Electronics Engineer in Training	1
5	345	Program Analyst	3
	560	Budget Analyst	1

MILITARY STAFF—PHALANX PROGRAM OFFICE

Rank	NOBC	Title	Number
0-6	1210	Materiel Professional Surface Warfare	1
0-5	1110	Surface Warfare Officer	1
0-4	3100	Supply Corps	1

The Lieutenant Commander is a Business and Financial Management program officer, and serves as Director of the Financial and Procurement Support Office.

Nuclear Attack Submarine Program (SSN 688)

Program Managers

Since the inception of the SSN 688 Class acquisition program in 1968, there have been nine different Program Managers of this program, all Navy captains.

Tenure. Averaging 32 months, the average tenure of SSN 688 Program Managers has been short-lived. There have been four different Program Managers since 1986. The first of the most recent four Program Managers left after 10 months when promoted. The second was also a captain who served for only 8 months and was reassigned because of the complexity of the program. There have been two different Program Managers since 1988.

Education and Training. All recent Program Managers have possessed a baccalaureate degree in engineering. The current Program Manager has a master degree in engineering and has completed the Program Management Course at the Defense Systems Management College. None, however, has completed a Senior Service School.

Experience. The last three Program Managers have had at least eight years of weapons-related experience, either in acquisition, operations, or maintenance with at least two years assigned to NAVSEA.

Deputy Program Manager

The Deputy Program Manager is a Senior Executive Service civilian, ES-801, General Engineer. He has a baccalaureate degree in mechanical engineering, is a 1979 graduate of the Program Management Course, and has over 20 years of experience in acquisition. He is also a graduate of the Civilian Materiel Professional program.

Contracting Officer

The current Contracting Officer, a GS-1102-14, has been assigned to the program since July 1987. She is a graduate of the Presidential Management Intern Program, has a master degree in business management, and has seven years of contracting experience.

Program Office Manning

The Attack Submarine Program Office is a relatively large organization with both an acquisition and logistics support mission.

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Since the reorganization of the program office in April 1986, the acquisition of the SSN 688 class submarine comprises only a portion of the overall mission of the program office. The major portion of the program office mission, functions and responsibilities is directed to the life cycle support of the active SSN fleet, currently 96 ships, and selected support for the pre-SSBN 726 class submarines. It is also responsible for the technical and logistics support functions to the Strategic Submarine Program Office for all the 26 pre-SSBN 726 class submarines. The Program Office is responsible for the management, coordination and execution of the Submarine Noise Reduction Program for all submarines (SSN and SSBN classes). As Exhibit VI-66 indicates, there are 7 different divisions; three have a military chief (captain or lieutenant commander) and four divisions have a civilian chief (GM-15). Currently, there are 167 personnel assigned to the program office, 153 civilian and 14 military, as shown at Exhibit VI-67. Of this total, only 26 civilians and 2 military are assigned directly to the SSN 688 acquisition functions. The remaining 130 personnel are assigned fleet logistic and life cycle support functions for the 96 SSN and 26 SSBN submarines.

EXHIBIT VI-66

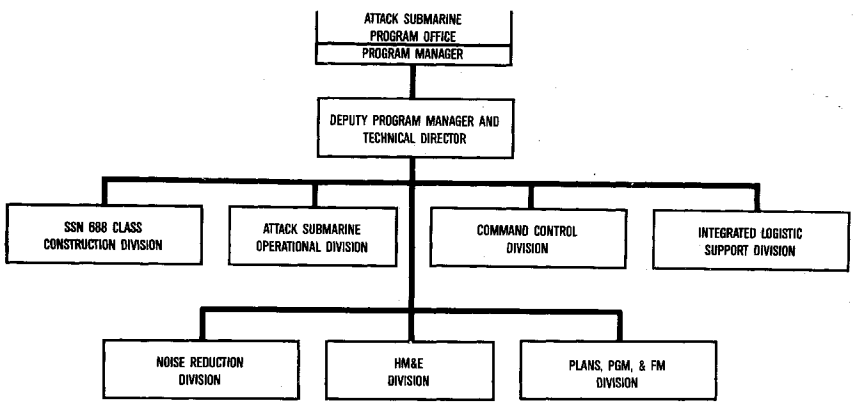

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EXHIBIT VI-67—ATTACK SUBMARINE OFFICE CIVILIANS

Grade	Series	Title	Number
15	801	General Engineering	4
	871	Naval Architecture	1
	830	Mechanical Engineering	1
	345	Program Analyst	1
	346	Logistics Management	1
		Total	8
14	801	General Engineering	6
	871	Naval Architecture	5
	855	Electronics Engineer	2
	850	Electrical Engineering	1
	830	Mechanical Engineer	3
	560	Budget Analyst	2
	346	Logistics Management	2
	301	General Administration	1
		Total	22
13	801	General Engineering	17
	803	Safety Engineering	2
	871	Naval Architecture	10
	830	Mechanical Engineering	15
	855	Electronics Engineering	7
	850	Electrical Engineering	2
	560	Budget Analyst	1
	345	Program Analyst	2
	346	Logistics Management	7
	301	General Administration	9
		Total	72
12	855	Electronics Engineering	1
	830	Mechanical Engineering	2
	560	Budget Analyst	1
	345	Program Analyst	2
	346	Logistics Management	5
	301	General Administration	4
		Total	15
11	801	General Engineering	2
	855	Electronics Engineering	1
	560	Budget Analyst	2
	345	Program Analyst	1
	346	Logistics Management	1
	301	General Administration	2
		Total	9
9	560	Budget Analyst	1
	346	Logistics Management	1
	301	General Administration	2
		Total	4
9/13	871	Naval Architecture	1
7	560	Budget Analyst	1
5/12	560	Budget Analyst	1
5	560	Budget Analyst	2
		Total	5

In addition, there are 18 clerical, administrative and secretarial civilian personnel assigned to the office. The military personnel assigned to the SSN 688 program office are delineated in Exhibit VI-68.

EXHIBIT VI-68—MILITARY

Rank	Designator	Title	Number
0-6	1220	Submarine Materiel Professional URL	1
0-5	1440	Engineering Duty Officer RL	8
	1220	Submarine Materiel Professional URL	1
	3100	Supply Officer	1
0-4	1440	Engineering Duty Officer RL	1
0-3	1220	Submarine Materiel Professional URL	1
	1120	Submarine URL	1

The military officers represent only 8 percent of the total Program Management office. Even when the clerical and secretarial support staff are excluded, the military officers only comprise 9 percent of the professional and technical workforce. The Navy plans to add a Submarine Information Resources Management Division consisting of 11 civilians to the Program Office. Exhibit VI-69 provides proposed staffing for the new division.

EXHIBIT VI-69—INFORMATION RESOURCES MANAGEMENT DIVISION

Grade	Series	Title	Number
15	345	Program Analyst	1
14	345	Program Analyst	2
13	345	Program Analyst	5

The other 3 positions are secretary, program assistant, and computer specialist.

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PERSONNEL MANAGEMENT AND CAREER PROGRAMS—AIR FORCE PROGRAM MANAGEMENT PERSONNEL

The Air Force has both military and civilian Program Managers and Deputy Program Managers, although traditionally, it favors employing military officers as both Program Managers and Deputy Program Managers. The Air Force has taken the position that managing aircraft programs requires rated operational experience which provides a degree of familiarity with tactics, employment and credibility with the user. Thus there is a strong tendency towards appointing Program Managers for aircraft programs with operational experience. Given the limited pool of officers with operational experience, Program Managers of other programs are generally selected based on their acquisition experience.

Air Force Military Career Program

Acquisition Management Professional Development Program

The Air Force has established a career program for military Program Managers through the rank of lieutenant colonel. The purpose of the Acquisition Management Professional Development Program (AMPDP) is to professionally develop military Program Managers and Deputy Program Managers. Its genesis lies in a decision by the then commander of Air Force Systems Command, General Lawrence Skantze, to take steps to better develop Air Force acquisition managers. In 1985, then-Major General Ronald W. Yates, the F-16 Program Director, headed the Acquisition Manager Career Development Task Force (CDTF). The AMPDP evolved from the work of this Task Force, which was comprised of 20 senior acquisition managers, lieutenant colonel and above, representing various Systems Command organizations and functional specialties.

Management. While ultimate responsibility for the AMPDP resides with the Assistant Secretary of the Air Force (Acquisition), the Service Acquisition Executive, its operation and management has been delegated to the Air Force Systems Command as the Air Force Executive Agent. However, unlike the Army and Navy programs, the specific regulatory guidance implementing AMPDP has been issued only as an AFSC regulation (AFSCR 36-5, "Acquisition Management Professional Development," dated September 9, 1988). The other procurement commands have not yet implemented the program.

The Air Force is planning to replace this regulation with an Air Force-wide regulation (although AFSC will still be designated as the Executive Agent). The Air Force-wide program will expand the current effort to include both military and civilians performing acquisition-related duties. This draft regulation is in coordination among the Air Force "Acquisition" or Procurement Commands with planned implementation as specified in Exhibit VI-70.

EXHIBIT VI-70—AMPDP PHASED IMPLEMENTATION

Phase	Description	Implementation date
I	AFSC Military	Complete.
II	AF-Wide Military	July 1989.

EXHIBIT VI–70—AMPDP PHASED IMPLEMENTATION—Continued

Phase	Description	Implementation date
III	AFSC Civilian	July 1989.
IV	AF–Wide Civilian	April 1990.

The Commander of AFSC maintains overall executive responsibility for the AMPDP, gives guidance and direction on related Acquisition Management professional development issues, and acts as "final and sole approval authority" for certain certifications and removal actions. The Air Force Systems Command Deputy Chief of Staff for Personnel manages the AMPDP through the Career Development Branch.

The AMPDP is supported by the military personnel system through HQ AFMPC. Before any military member is reassigned, his records are reviewed by the supporting PALACE Team—PALACE VECTOR—to determine a specific acquisition certification level. Personnel identified as qualified to work in a key acquisition billet are selectively moved to ensure that their expertise is applied within the acquisition community. This allows the Air Force to control the professional development of its acquisition personnel to ensure that its officers obtain appropriate levels of training and education.

Selection Criteria. Entry into the program is voluntary and competitive with various selection boards managed by Air Force Systems Command. The AMPDP is open to all Air Force officers with experience in any of the AFSCs listed in Exhibit VI–71.

EXHIBIT VI–71—AMPDP SKILLS BASE

Function	AFSC
Scientific	26XX
Acquisition Program Management	27XX
Development Engineering	28XX
Program Director	0029
Communications-Computer Systems Officer	49XX
Acquisition Contracting and Manufacturing	65XX
Logistics Plans and Programs	66XX
Comptroller	67XX

Even though officers from these specialties are eligible to participate in all facets of the AMPDP, the primary focus of the program is on officers in the 0029, 26XX, 27XX and 28XX career fields. Officers in these specialties are assigned to positions throughout the Air Force even though the program is managed by the Air Force Systems Command.

Career Path. The AMPDP consists of a professional certification program and a formal acquisition manager screening process. The professional certification program is structured into four distinct levels with each level having specific qualification requirements. Individual level requirements form the basis for next higher certification level, similar to a building block approach. The four levels are identified in Exhibit VI–72.

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EXHIBIT VI–72—AMPDP LEVELS

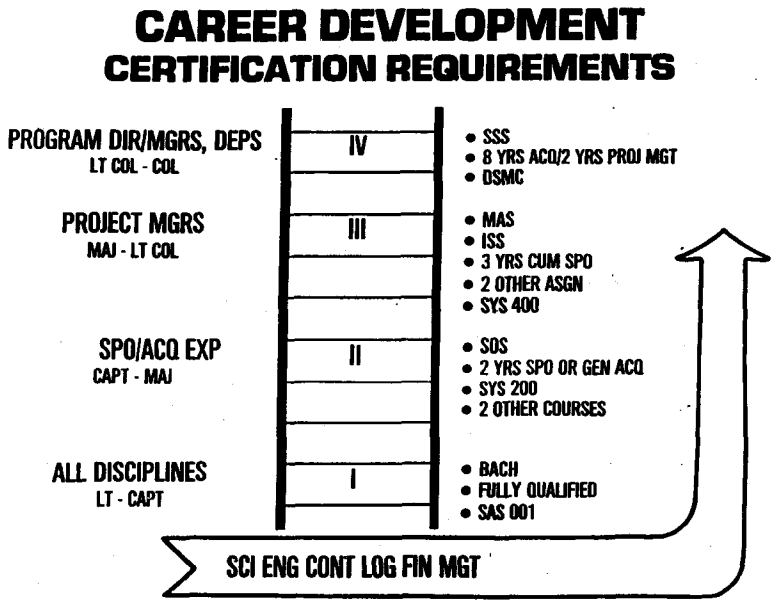
Level	Category
I	Acquisition Management Intern.
II	Intermediate Acquisition Manager.
III	Associate Acquisition Manager.
IV	Professional Acquisition Manager.

The certification requirements are shown schematically at Exhibit VI–73. On the right-hand side are shown the education, training, and Professional Military Education requirements at each Level. For example, Level I requires a baccalaureate degree and completion of the Introduction to System Acquisition Management (SAS 001) course taught by the Systems Acquisition School, at Brooks Air Force Base, Texas (created to meet AFSC unique training requirements). Level II requires completion of Squadron Officer School (SOS) plus 2 years acquisition experience and other technical training; Level III requires a masters degree, completion of Intermediate Service School, completion of the Intermediate Program Management (SYS 400) course at the Air Force Institute of Technology, and 3 years experience in a Systems Program Office (SPO); Level IV requires completion of the Program Management Course at Defense Systems Management College, a Senior Service School, and 8 years acquisition experience—including two years in project management.

The left-hand side indicates the grade and type of experience required at each Level. Each level has its own educational, training, and experience requirements. These requirements are cumulative, meaning that all lower level requirements must be met before an individual may apply for certification at a higher level. Waivers will only be granted by the Commander or Vice Commander of Air Force Systems Command.

A baccalaureate degree is a prerequisite for entry and a master degree in an acquisition-related discipline is required at Level III. Level IV certifications reflect or exceed the requirements of DOD Directives and the appropriate Public Laws for Program Managers of major programs. In addition, completion of a Senior Service School, such as Air War College, is required.

EXHIBIT VI–73



Program Scope. Officers from all of the various Air Force Specialty Codes (AFSCs) included within the purview of the AMPDP are assigned throughout the Air Force, but Program Managers are assigned to only one of three commands: Systems Command, Air Force Logistics Command, and Air Force Communications Command, with the vast majority assigned to Systems Command. As of May 1, 1989, there were 4,823 Air Force officers certified in the AMPDP as shown in Exhibit VI–74.

EXHIBIT VI–74—AMPDP CERTIFICATIONS

[Number]

Rank	Level					
	I	II	III	IV	Total	Percent
2LT	24	0	0	0	24	1
1LT	747	4	0	0	751	15
CPT	2106	249	12	0	2367	49
MAJ	559	189	103	9	860	18
LTC	331	109	131	90	661	14
COL	66	15	32	47	160	3
Total	3833	566	278	146	4823	100
Percent	79	12	6	3		

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Of this number 461 (10 percent) certified officers were either on the Acquisition Managers List (234) or the Senior Acquisition Managers List (227).

AML/SAML Career Management

As part of the AMPDP, Air Force Systems Command is in the process of identifying a pool of officers who are qualified to fill key middle and senior management positions and receive selective career management by the Headquarters Air Force System Command Career Development Branch. These officers will be included on two Acquisition Management Lists: the Acquisition Managers List (AML) and the Senior Acquisition Managers List (SAML). Systems Command organizational commanders, Headquarters Air Force and the Assistant Secretary (Acquisition) functional managers may identify a limited number of key positions at the grades of major and lieutenant colonel to be filled by AML and SAML officers. The program is centrally managed by Headquarters Air Force Systems Command, which will provide a list of qualified candidates from the appropriate list. Assignments to these key positions is done through the career program PALACE Team at the Air Force Military Personnel Center.

Acquisition Management List (AML). An annual Systems Command selection board consisting of senior program directors selects a maximum of 100 officers, or the top 40 percent—whichever is lower—on a "best qualified" basis to be included on the AML. Basic eligibility includes the rank of major (0–4), eligibility in the current board year for secondary zone promotion to lieutenant colonel (0–5), and a Level III certification. However, officers who have served or are serving as test pilots (286X) or test navigators (287X) as well as recommended flight test engineers are exempt from this requirement.

AML officers are managed by the Systems Command Career Development Branch. Systems Command and the Assistant Secretary (Acquisition) identify a limited number of key positions to be filled by AML officers which are filled through a nominate-and-select process. Officers remain on the AML through their 18th year of commissioned service or unless they are removed during a quality review. There are four criteria for removal: disciplinary or administrative action; declining duty performance; non-selection for promotion to grade of lieutenant colonel or colonel; or, two nonselections to the Senior Acquisition Managers List.

Senior Acquisition Management List (SAML). An annual SAML selection board, composed of senior Program Managers, convenes at Systems Command headquarters and uses a "best qualified" process to select officers for inclusion on the SAML. Eligibility criteria includes: Level IV Certification; the rank of lieutenant colonel selectee or above; and non-deferred status to the grade of colonel. About 50 officers are selected for the SAML annually but this number may vary according to projected senior Program Manager requirements, SAML vacancies, and quality considerations. SAML officers are managed by the Systems Command Deputy Chief of Staff, Personnel. Selected officers remain on the SAML unless they are removed during a quality review because of declining duty per-

formance, disciplinary or administrative action, or nonselection for promotion to grade of colonel.

Program Directors

The Air Force has established a Program Director specialty under Air Force Specialty Code 0029. These colonel or colonel selectee positions are for Program Management positions directing major defense system acquisition programs. The determination as to which programs will require Program Directors vis-a-vis Program Managers is made by the Commander of Air Force Systems Command. The management of Program Directors is distinct and separate from the Acquisition Management Professional Development Program, and the mechanisms for selection and management of the Program Directors are external to the career program. Program Directors occupy the key Program Management positions for systems identified as a Major System Acquisition, Air Force Executive Program, Defense Enterprise Program, Secretary of the Air Force Program Assessment Review Program, Congressional Selected Acquisition Reporting Program, or a highly sensitive or visible program. Specialty qualifications are intended to comply with the statutory requirements for major weapon system Program Managers. Typically, Program Directors manage large System Program Offices (SPOs) of 150 people and large dollar value programs which are at least in the Full-Scale Development (FSD) phase of the Acquisition Life Cycle. Exhibit VI-75 lists the 38 different SPOs currently authorized a Program Director.

EXHIBIT VI-75—AIR FORCE PROGRAM DIRECTOR POSITIONS

Organization	Programs
Aeronautical Systems Division	Advanced Cruise Missile, Aeronautical Equipment, F-15, LANTIRN, Special Operations Forces, Special Strategic Programs, Tacit Rainbow, Training Systems.
Ballistic Systems Division	Advanced Strategic Missile Systems (ASMS), Peacekeeper in Silos.
Electronic Systems Division	AWACS, Airborne Voice Communications, Combat Theater Communications, JTIDS, MILSTAR Terminals, NORTH Warning, OTH-B Radar, PEACE SHIELD, Space and Missile Warning, SDI Battle Management C3, Tac Air Battle Management, WWMCCS Infor Systems (WIS).
Munitions Systems Division	Air/Surface Ballistics Weapons, Air/Surface Guided Weapons, JT Tactical Systems, MSOW IPO.
Space Systems Division	Advanced Launch Systems, Boost Surveillance & Tracking, CSOC, Defense Met Sat Prgm (DSMP), Defense Sat Comm Sys (DSCS), Defense Supt Program, Medium Launch Vehicles, NAVSTAR Joint GPS, Satellite Control Network, Space Defense, Titan IV Upper Stages.

The mechanics for implementing the Program Director process consists of an annual Program Director selection board which chooses, normally, the top 25 percent of eligible colonels and colonel selectees. Selectees are placed on one of three lists: the Program Director List, the Deputy Program Director and Program Manager List, and a Futures List. A breakout of the current Program Directors List, which is presented on Exhibit VI-76, illustrates the competitiveness for selection. More than 50 percent of

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the Air Force officers applying were not accepted, and only 17 percent were accepted on the Program Director List.

EXHIBIT VI-76—PROGRAM DIRECTORS LIST

List type	AFSC	Non-AFSC	Total	Percent
Program Director	38	14	52	17
Deputy Director	39	13	52	17
Future Director	19	28	47	15
Not Selected	71	84	155	51
Total	167	139	306	100

This screening and selection procedure should identify candidates for the key Program Management jobs in advance and facilitate the timely placement of qualified officers into these key jobs.

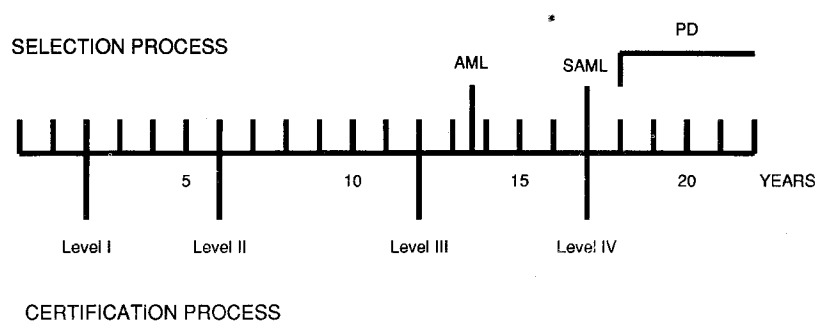
Career Management Model

The Air Force has established a two-tier career management model. At the lower tier is the AMPDP. At the higher tier is the Program Directors List which is separate from, but an implicit extension of the AMPDP. In this regard, the AMPDP applies only to lieutenants through lieutenant colonels even though colonels can be certified. These relationships are depicted in Exhibit VI-77.

EXHIBIT VI-77

AM MODEL

DUAL PROCESS



• CERTIFICATION PHASE POINTS ARE GOALS

This time-line shows the certification process which consists of Levels I through IV. These certification phase points are goals an

officer should consider in career planning, but are not requirements. The certification process is tied to specific levels that reflect education, training, and experience, and are independent of rank. For example, there are colonels at Level I. The AML, SAML, and Program Director (PD) Lists are the products of the selection process and are independent of the certification process. While the two processes are theoretically independent, there is a practical interconnectedness: an officer must be at the right certification level to be considered eligible for inclusion on the list. In terms of the model, an officer would have to be at Level III certification and be in the grade of major for consideration for the AML. Additionally, an officer must be Level IV certified and at least a lieutenant colonel selectee for SAML consideration. Program Directors are colonels who normally have 22 or 23 years experience, but my be considered as early as the 18 year point. This logical career progression does not, however follow through to the selection of General Officers in the acquisition career field.

Significantly, General Officer positions are not filled from the Program Directors List. Rather all General Officer assignments are made for the Air Force Chief of Staff through the Assistant for General Officer Matters in the office of the Deputy Chief of Staff, Personnel.

As shown in Exhibit VI-78 there is a different acquisition management career model for rated officers. Rated officers begin their first rated supplement tour at year 6 of active commissioned service. This tour hypothetically lasts for 3 years. The Air Force wants to have 50 pilots and navigators per year assigned into the acquisition career field at the rank of captain. This means there would be 150 at any one time. Approximately 10 out of each group of 50 would be identified to return for an additional rated supplement tour at the completion of their 9 year flying gate. The Air Force is concerned about the 8 years of acquisition experience, required by statute, for Program Managers and its impact on rated officers filling Program Management and Program Director positions. This is particularly worrisome as the Air Force policy is to appoint rated officers as Program Managers of major airframe programs such as the F-15 or B-1.

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EXHIBIT VI-78

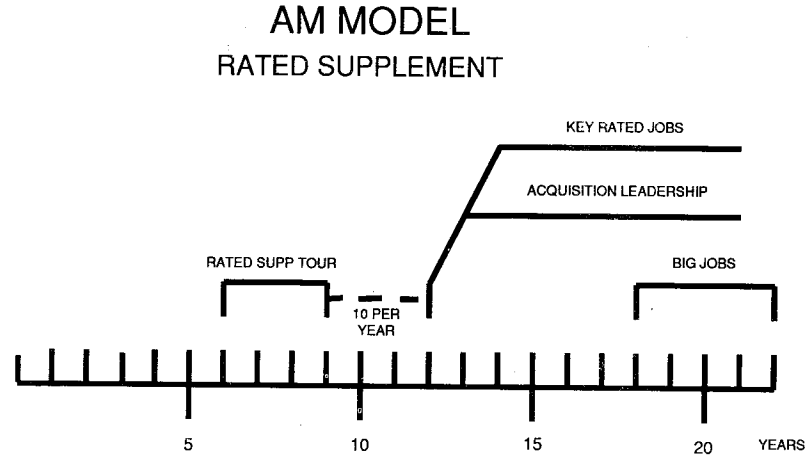

Exhibit VI-79 compares three different rated career paths. The top shows the standard rated track with the officer serving in flight and operational assignments except for time spent in Professional Military Education. The second track shows the rated supplement track. The rated supplement track begins at the 11 year point in an officer's career vice the current 6 year point. This change resulted from revisions to the Aviation Career Incentive Pay contained in the FY 89 DOD Authorization Act. The last track applies to test pilots and test navigators who are exempt from the Level I and II certification requirements, and receive acquisition credit while acquiring flying gate credit. Test pilots and test navigators can also be considered for the AML without Level III certification. However, they must meet the Level IV certification requirements for selection to the SAML.

EXHIBIT VI-79

RATED CAREER PATHS

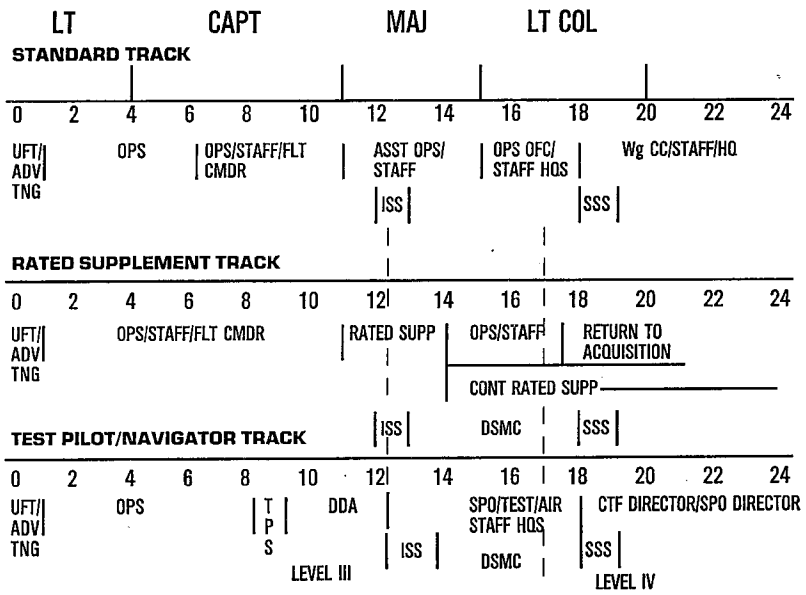

Exhibit VI-80 portrays the assignment of AMPDP officers to key acquisition positions. Commanders and key staff officers in Headquarters, Air Force systems Command identify key positions and correlate those to the Acquisition Managers List (AML), Senior Acquisition Managers List (SAML), and Program Directors List (PDL). The bottom frame of the exhibit reflects individual officer career development through certification and selection for the various lists through the AML, SAML, and PDL board structure. The job candidates for the key jobs at each level come from these lists. The AFSC Director of Military Personnel and the Air Force Military Personnel Center (AFMPC) try to match individuals to jobs—with review, selection and approval in the hands of the AFSC command structure.

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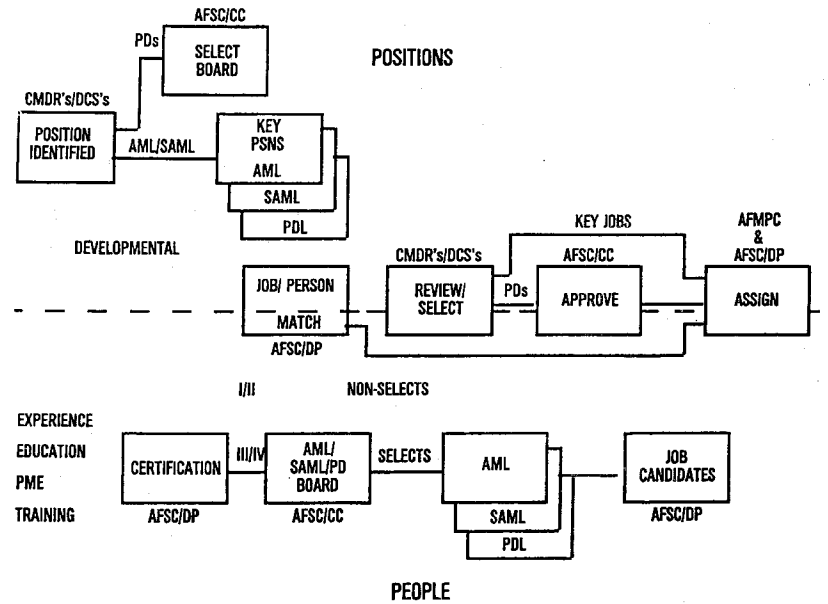
EXHIBIT VI-80

AMPDP ASSIGNMENTS



Personnel Management of Military Program Managers

Selections and Assignments

The Assistant Secretary for Acquisition has overall responsibility for selection and assignment of qualified Program Managers and Program Directors, a responsibility which also includes ensuring that mandatory education, training and tenure requirements are met. The actual tracking of educational and training requirements is performed by Air Force Systems Command. The Air Force Military Personnel Center executes the assignment process, including tour length.

As the Service Acquisition Executive, the Assistant Secretary for Acquisition reviews all reassignment actions involving Program Directors or Program Managers and deputies for Air Force Executive Programs. "Executive Programs" are those programs over which the SAE exercises direct oversight because of their national significance, large resource commitment, or management complexity. Most, but not all, of them are major programs as defined by DOD Directive 5000.1.

Prior to the implementation of the Service Acquisition Executive process, individual Program Director/Deputy Program Director assignment were made by the appropriate major command commander. Currently, the various Acquisition Command Commanders

nominate individuals from the AML and SAML lists for these positions.

Promotions

Officer promotions follow the traditional approach in which promotion boards are controlled by the military. In this regard, the civilian Service Acquisition Executive has no control over military promotion boards and can provide no instructions or precepts to the boards. Military Program Managers compete for promotions along with pilots, missile officers and other line officers. There is no separate promotion board, nor is there a promotion "floor" or minimum number of acquisition officers that must be promoted. Additionally, the promotions of acquisition officers are not dependent on completion of DOD mandatory courses for acquisition personnel required by DOD 5000.52-M (Draft).

Generally, however, Air Force officers in core acquisition specialties do well on promotion boards. Exhibits VI-81 through VI-83 provide promotion board data for colonels, lieutenant colonels, and majors. Data is organized into three categories. The Primary Zone category refers to officers receiving their first "normal" consideration, along with their peers. Above-the-primary zone consideration refers to officers who have been previously considered for promotion but were not selected. Below-the-primary zone refers to those officers being considered for the first time early—ahead of their contemporaries.

EXHIBIT VI-81—COMPARATIVE PROMOTION RATES—COLONELS

[In percent]

	CY 1985	CY 1986	CY 1987
IN THE PRIMARY ZONE:			
Acquisition Specialties:			
Acquisition Program Manager (27XX)	60.5	42.6	48.3
Development Engineering (28XX)	34.9	32.1	28.6
Communications-Computer Systems (49XX)	50.8	33.7	37.6
Air Force Nonrated Average (NRL)	47.0	41.7	39.1
Air Force Rated Average (RL)	41.0	44.0	49.0
Pilot	44.0	48.0	51.0
Navigator	32.0	29.0	40.0
ABOVE THE PRIMARY ZONE:			
27XX	8.6	3.7	7.9
28XX	0.0	6.3	0.0
49XX	2.3	0.0	1.1
NRL	3.2	3.9	3.5
Air Force Rated Average (RL)	2.0	3.0	3.0
Pilot	2.0	4.0	4.0
Navigator	1.0	2.0	2.0
BELOW THE PRIMARY ZONE:			
27XX	1.4	0.8	3.0
28XX	0.0	0.6	3.9
49XX	1.4	2.4	0.0
NRL	1.8	2.0	3.0
Air Force Rated Average (RL)	3.0	4.0	5.0
Pilot	3.0	5.0	6.0
Navigator	1.0	1.0	1.0

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EXHIBIT VI-82—COMPARATIVE PROMOTION RATES—LIEUTENANT COLONELS

[In percent]

	CY1985	CY1986	CY1987
IN THE PROMOTION ZONE:			
Acquisition Program Manager (27XX)	71.7	78.4	71.0
Developmental Engineering (28XX)	59.0	64.6	68.7
Communications-Computer Systems (49XX)	53.6	67.0	55.6
Air Force Non-rated Line Average (NRL)	56.6	62.0	61.2
Air Force Rated Average (RL)	64.0	62.0	63.0
Pilot	67.0	64.0	67.0
Navigator	55.0	58.0	57.0
ABOVE THE PROMOTION ZONE:			
27XX	8.2	7.5	5.8
28XX	8.3	6.9	5.7
49XX	5.2	0.9	1.7
NRL	5.7	5.6	4.2
Air Force Rated Average (RL)	7.0	6.0	7.0
Pilot	9.0	6.0	8.0
Navigator	4.0	5.0	5.0
BELOW THE PROMOTION ZONE:			
27XX	1.9	2.8	3.7
28XX	1.1	4.9	1.6
49XX	4.3	5.2	1.6
NRL	2.4	3.3	2.8
Air Force Rated Average (RL)	3.0	2.0	2.0
Pilot	4.0	3.0	3.0
Navigator	1.0	1.0	1.0

EXHIBIT VI-83—COMPARATIVE PROMOTION RATES—MAJORS

[In percent]

	CY 1986B	CY 1987	CY 1988
IN THE PROMOTION ZONE:			
Acquisition Program Manager (27XX)	87.7	96.9	91.0
Developmental Engineering (28XX)	89.5	92.4	91.2
Communications-Computer Systems (49XX)	77.2	73.4	68.4
Non-rated Line Air Force Average (NRL)	75.1	77.4	78.0
Air Force Rated Average (RL)	88.0	91.0	95.0
Pilot	89.0	93.0	96.0
Navigator	85.0	88.0	92.0
ABOVE THE PROMOTION ZONE:			
27XX	31.3	9.1	0.0
28XX	8.2	10.4	6.5
49XX	5.4	6.3	2.9
NRL	10.2	8.0	9.3
Air Force Rated Average (RL)	9.0	7.0	5.0
Pilot	8.0	8.0	5.0
Navigator	9.0	6.0	5.0
BELOW THE PROMOTION ZONE:			
27XX	1.2	1.2	2.3
28XX	1.8	1.1	1.1
49XX	0.4	0.3	0.3
NRL	0.8	0.5	0.9
Air Force Rated Average (RL)	1.0	2.0	1.0
Pilot	2.0	2.0	1.0
Navigator	1.0	1.0	1.0

Assessment

As delineated in the above data, officers in the primary Program Management specialties are very competitive vis-a-vis the average Air Force non-rated officers. Officers in Acquisition Management fare best for promotion to colonel, lieutenant colonel and major. Officers in developmental engineering are close behind Acquisition Management officers, especially at the rank of major.

Civilian Career Programs

In order to implement Public Law 99-145 and DOD Directive 5000.23 of December 9,1987, the Air Force issued AF Regulation 40-110 Volume 16, "Systems Acquisition Management," establishing the Scientist and Engineer Career Program.

Scientist and Engineer (S&E) Career Program

The Air Force Director of Civilian Personnel and the Air Force Civilian Personnel Management Center sought to establish an Air Force-wide career program for Scientists and Engineers (S&E) similar to other career programs like the Contracting Career Management Program (CCMP). Due to disagreements between Air Force Systems Command and other Air Force commands, this program is not yet fully operational. Notwithstanding this action, the Air Force currently lacks a viable career program for civilian Program Management personnel.

Systems Acquisition Career Management for Civilians (SACMPC)

For a number of years, Air Force Systems Command has operated the Systems Acquisition Career Management Program for Civilians (SACMPC) which was intended to develop civilian Program Managers. This program was basically decentralized to various field organizations and has had mixed results. The General Accounting Office noted in its May 1986 Report (*DOD Acquisition: Strengthening Capabilities of Key Personnel in Systems Acquisition,* B-221555) that the SACMPC program has an optional first or entry level phase that consists of additional training and rotational assignments *outside* the basic functional career field of the participant. The core of the program would begin at the GS-12 level with participants graduating at the GS/GM-13 level. In this core phase, individuals would be given a series of 3 to 9 month rotational assignments in acquisition functions such as business and financial management, Program Management, and logistics, plus attendance at the Program Management Course.

A primary drawback of SACMPC was that personnel graduating from the program were not placed in assignments that utilized the varied training and experience they had received. Although it is still in existence on paper, SACMPC is basically moribund.

Civilian Acquisition Management Program (CAMP)

The Air Force intends to transfer the SACMPC into a new Civilian Acquisition Management Program. This program is being developed by Air Force Systems Command and is scheduled for Systems Command implementation by July 1989 and Air Force-wide implementation by April 1990. Individuals not assigned to Systems

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Command will be eligible to enroll and participate in the CAMP until the Air Force-wide program is operational. It is expected that this program will have the basic requirements of the military AMPDP. The implementing regulation, AFSC 30-XX, has not yet been published.

CHARACTERISTICS OF AIR FORCE PROGRAM MANAGEMENT PERSONNEL

Program Manager Tenure—Air Force

The same criteria or yardsticks are applied to measuring Air Force Program Manager tenure as were applied to the Army and Navy. Since the passage of P.L. 98-552 on October 19, 1984, there have been 25 different major programs—including programs categorized by the Air Force as "major"—that are more than 4 years old, as shown in Exhibit VI-84. There have been seven programs which have had at least one Program Manager to serve for a minimum of 48 months since the inception of the program which in many cases was prior to the enactment of the tenure law. These programs are: Defense Support Program (DSP), Advanced Medium Range Air-to-Air Missile (AMRAAM), C-17, Mark XV, OTH-B, SRAM II, and the PEACEKEEPER Silo programs. However, this represents just 11 percent of the total Program Managers who have been assigned. The 25 current programs over 4 years old have had 86 different Program Managers including the current Program Manager. The four reasons Program Managers did not meet tenure requirements are listed in Exhibit VI-85, which also indicates the proportion of temporary or acting Program Managers that have been assigned.

EXHIBIT VI-84—AIR FORCE—MAJOR PROGRAMS MORE THAN 4 YEARS OLD

Major program	Current PM in since	Dates of previous PM tenure (since 84)	Months	Reason for leaving
AMRAAM	JUL 1988	JUL 1984–JUL 1988	48	Promoted.
ATARS	JUL 1989	MAR 1987–JUL 1989	28	Promoted
		NOV 1985–FEB 1987	16	Promoted.
		JUL 1983–JUL 1985	24	Promoted.
ATF	DEC 1986	JUN 1983–NOV 1986	41	Retired.
B1-B	AUG 1988	JAN 1987–JUL 1988	18	Reassigned.
		JUL 1985–DEC 1986	17	Reassigned.
		NOV 1981–JUN 1985	43	Promoted.
C-17	AUG 1987	JUL 1986–AUG 1987	13	Reassigned.
		SEP 1985–JUL 1986	11	Retired.
		NOV 1979–SEP 1985	70	Reassigned.
DMSP	DEC 1987	FEB 1985–DEC 1987	34	Retired.
		AUG 1983–FEB 1985	18	Reassigned.
DSCS III	MAR 1989	JAN 1989–FEB 1989	1	Deputy Acting.
		OCT 1987–JAN 1989	15	Promoted.
		JUN 1986–SEP 1987	15	Retired.
		AUG 1984–JUN 1986	22	Retired.
DSP	AUG 1989	APR 1985–JUL 1989	51	Retired.
		FEB 1983–APR 1985	26	Retired.
E-3A Radar improvement	APR 1989	AUG 1986–APR 1989	32	Retired.
		AUG 1985–AUG 1986	12	Reassigned.
		MAR 1983–AUG 1985	29	Reassigned.
F-15	JUN 1987	SEP 1984–JUN 1987	33	Promoted.
F-16	JUL 1989	JUL 1986–JUL 1989	36	Reassigned.

EXHIBIT VI-84—AIR FORCE—MAJOR PROGRAMS MORE THAN 4 YEARS OLD—Continued

Major program	Current PM in since	Dates of previous PM tenure (since 84)	Months	Reason for leaving
		AUG 1983–JUL 1986	35	Reassigned.
JSTARS	AUG 1989	JUN 1986–AUG 1989	38	Retired.
		DEC 1985–JUN 1986	7	Reassigned.
		OCT 1984–DEC 1985	14	Reassigned.
JTIDS	SEP 1989	MAR 1988–AUG 1989	18	Retired.
		SEP 1987–FEB 1988	6	Deputy Acting.
		APR 1985–AUG 1987	29	Retired.
		JAN 1985–APR 1985	4	Deputy Acting.
		JUL 1984–JAN 1985	7	Reassigned.
LANTIRN	JUN 1987	DEC 1986–JUN 1987	7	Reassigned.
		AUG 1984–DEC 1986	28	Reassigned.
MARK XV	JUL 1989	JUL 1987–JUN 1989	23	Retired.
		JUL 1986–JUN 1987	11	Retired.
		JUN 1982–JUN 1986	48	Retired.
MAVERICK	AUG 1987	APR 1986–JUL 1987	15	Retired.
		JUN 1984–APR 1986	22	Retired.
MILSTAR	MAY 1989	FEB 1986–MAY 1989	39	Reassigned.
		JUL 1983–FEB 1986	31	Reassigned.
MLS	JUL 1988	DEC 1987–JUL 1988	6	Deputy Acting.
		DEC 1984–DEC 1987	36	Reassigned.
		JUN 1984–DEC 1984	6	Deputy Acting.
NAVSTAR	AUG 1988	OCT 1985–AUG 1988	34	Retired.
		JUL 1983–OCT 1985	39	Retired.
OTH-B	SEP 1988	JUN 1986–AUG 1988	26	Retired.
		JUL 1981–JUN 1986	59	Reassigned.
PEACEKEEPER Silos	MAY 1989	MAR 1987–MAY 1989	26	Retired.
		OCT 1986–MAR 1987	6	Retired.
		MAY 1982–SEP 1986	53	Reassigned.
SMALL ICBM	SEP 1989	MAY 1989–AUG 1989	3	Deputy Acting.
		AUG 1985–MAY 1989	45	Reassigned.
		JUL 1984–AUG 1985	13	Deceased.
SFW	OCT 1988	APR 1987–OCT 1988	18	Reassigned
		MAR 1985–APR 1987	25	Promoted.
		JUN 1984–FEB 1985	8	Retired.
SRAM II	NOV 1988	JUL 1984–NOV 1988	52	Retired.
KC-135 Reengining	SEP 1989	JUN 1988–AUG 1989	14	Retired.
		JUN 1984–MAY 1988	47	Reassigned.

EXHIBIT VI-85—REASONS FOR CHANGES IN PROGRAM MANAGERS

Category	Percent
Retirement	39
Reassignment	36
Promotion	13
Death	2
Temporary	10

The average tenure of the 61 previous Program Managers was 25 months. This average is used in Exhibit VI-89 as it most accurately reflects the personnel turbulence and instability caused by rotation of Program Managers. When one excludes the Deputy Program Managers acting as Program Manager, the average tenure increases to 28 months.

The second measure is programs in effect prior to October 1984 that have had a Program Manager appointed after that date who has completed his or her Program Manager assignment.

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EXHIBIT VI-86—MAJOR PROGRAMS WITH PROGRAM MANAGERS APPOINTED AFTER OCTOBER 1984 COMPLETING THEIR ASSIGNMENT

Program	Number of PMs	Length	Average tenure
ATARS	1	16	
	2	28	22
B1-B Bomber	1	17	
	2	18	17.5
C-17	1	11	
	2	13	12
DMSP	1	34	34
DSCS III	1	15	
	2	15	
	3	1	10.3
DSP	1	51	51
E3A-Radar (AWACS)	1	12	
	2	32	22
JSTARS	1	14	
	2	7	
	3	38	19.7
JTIDS	1	4	
	2	29	
	3	6	
	4	18	14.3
LANTIRN	1	7	7
MARK XV	1	11	
	2	23	17
MAVERICK	1	15	15
MILSTAR	1	39	39
MLS	1	36	
	2	6	21
NAVSTAR	1	34	34
OTH-B	1	26	26
PEACEKEEPER Silos	1	6	
	2	26	16
Small ICBM	1	45	
	2	3	24
SFW	1	25	
	2	28	21.5
KC-135 Reengining	1	14	14

There were 20 programs out of 25 more than 4 years old, or 80 percent, where a Program Manager was appointed after enactment of the law (Oct. 84) and has since departed. In only one case did the Air Force comply with the Public Law, the DSP. This figure is also indicated in Exhibit VI-89. For these 20 programs, there were 36 different individuals who served as Program Manager. Their average tenure was only 19.8 months. The most egregious case was that of the JTIDS program where there were four Program Managers in about 4 years with an average tenure of only 14 months.

The third category is Program Managers who were appointed prior to October 1984 as managers of a major program including the Program Manager on board at the time the law went into effect who continued to serve as Program Managers after such designation. The programs falling into this category and the average tenure is shown below:

EXHIBIT VI-87—PROGRAM MANAGERS OF MAJOR PROGRAMS APPOINTED BEFORE P.L. 98-525

Program	Number PMs	Average tenure
AMRAAM	6	23.3
ATF	1	41
B1-B	2	50
C-17	1	70
DMSP	1	18
DSCS III	3	27.3
DSP	7	32
F-15	9	23.7
F-16	6	30.2
JSTARS	5	12.2
LANTIRN	5	20.2
MARK XV	3	28.7
MAVERICK	10	25
MILSTAR	2	24.5
MLS	2	10
NAVSTAR	4	40.8
OTH-B	8	17
PEACEKEEPER Silos	1	53
SMALL ICBM	2	14
SFW	1	8
SRAM-II	1	52
KC-135Reengining	1	47

The average tenure for Program Managers appointed during and after the designation of the program as a major program through enactment of the Public Law (Oct. 1984) was 25.7 months. When one includes all Program Managers of major programs, (including Program Managers appointed prior to designation as a major program) the average tenure is 23.8 months.

In summary, Exhibit VI-88 depicts the average tenure for the major programs under consideration along various time lines: from designation as a major program through enactment of P.L. 98-525; all Program Managers appointed after enactment of P.L. 98-525 (other than the incumbent); and, the average of all Program Managers since designation of the program as a major program up to, but excluding the incumbent. This Exhibit takes into consideration the affects of appointing acting or interim Program Managers and this indicates the average when Deputies, acting as Program Managers, are excluded.

EXHIBIT VI-88—SUMMARY OF PROGRAM MANAGER TENURE

[Average tenure in months]

	All Program Managers	Excluding Acting Program Manager
All major programs prior to and through Oct. 1984	25.7	27.1
All major programs after Oct. 1984	21.4	24.5
Composite average of all Program Managers	23.8	25.5

The Air Force also has nine new programs, less than 4 years old. These nine programs have had 14 different Program Managers. Three of the programs (one-third) have had more than one Program Manager. In the case where there has been more than one Program Manager, average tenure has been 29 months. Reasons for leaving have been evenly split between retirement and reassignment. In 1989, the Air Force reported that the average tenure of Air Force Systems Command Program Directors was just 20 months. These are the most senior Program Manager positions in the Air Force.

Military Program Managers—Air Force

Program Managers—Major Programs

Currently, 29 of the 30 Program Managers for major Air Force programs are military officers. Sixty-one percent of all Air Force Program Managers of major programs (in all categories) are non-rated officers, and 39 percent are rated officers.

Education. All 29 Program Managers have a baccalaureate degree, and 28 a master degree. One has a doctorate.

Training. All 29 Program Managers have completed a Senior Service School such as Air War College. Only 14, or 48 percent, comply with the requirement to complete the Program Management Course. Only three of the 14 still requiring the course have received waivers. In all Air Force major program categories, 61 percent have completed the Program Management Course. Sixty-eight percent of non-rated officers have completed this course whereas only 50 percent of rated officers have completed the Program Management Course.

Experience. All the Air Force Program Managers exceed the experience requirements, averaging over 17 years in acquisition, except for the Program Manager for the KC-135 Reengining program in Air Force Logistics Command. This individual had no acquisition experience. The overall status of the military Program Managers is shown in Exhibit VI-89.

EXHIBIT VI-89—REQUIREMENTS FOR PROGRAM MANAGERS

[Major programs]

Requirement	Total number	Number complying	Percent
Statutory:			
Complete Program Management Course (10 U.S.C. 1622(b)(1) effective July 1, 1987)	29	14	48
Eight years experience in acquisition (effective July 1, 1989)	29	28	97
Two years experience (Procurement command) (10 U.S.C. 1622(b)(2) effective July 1, 1989)	29	28	97
Four years tenure (P.L. 98-525, sec. 1243, Defense Proc. Reform Act of 1984)	20	1	5
Average tenure (months)	25		
Education:			
Baccalaureate	29	29	100
Intermediate Service School or Senior Service School	29	29	100

Deputy Program Managers—Major Programs

There are 17 military Deputy Program Managers for Major Programs.

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Education. All of the officers assigned exceed the educational requirements. Fifteen of the 17 have earned a master's degree and one a doctorate.

Training. All 17 had completed an Intermediate Service School, but only 7 had completed the Program Management Course.

Experience. All exceeded the regulatory experience requirements with 16 and one-half years of average acquisition experience.

Overall, the Air Force military deputy Program Managers fully comply, and in fact exceed, the minimum education and experience requirements, as indicated in Exhibit VI-90.

EXHIBIT VI-90—REQUIREMENTS FOR DEPUTY PROGRAM MANAGERS

[Major programs]

Requirements	Total number	Number complying	Percent
Education:			
Baccalaureate	17	17	100
Experience:			
Three years acquisition	17	17	100
One year procurement command	17	17	100

Program Managers and Deputy Program Managers—Non-Major Programs

Exhibit VI-91 shows the distribution of the 192 Air Force non-major programs among six Air Force Systems Command Product Divisions.

EXHIBIT VI-91—NON-MAJOR PROGRAMS

Product division	Number non-major programs
Aeronautical systems	53
Ballistic systems	3
Electronic systems	64
Human systems	11
Munitions systems	30
Space systems	31

The Air Force did not have additional information on non-major programs and hence was unable to provide information on the education, training and experience of non-major Program Manager personnel.

Civilian Program Managers—Air Force

The Air Force has one civilian Program Manager and 9 Deputy Program Managers of major programs.

Program Manager—Major Program

The Program Manager for the National Aerospace Plane Joint Program Office, a Senior Executive Service ES-801 General Engineer at Aeronautical Systems Division (ASD), has been in the position for 15 months. This individual has completed neither the Program Management Course nor a Senior Service School. However, the individual has outstanding credentials with over 25 years acquisition experience plus a baccalaureate degree in chemical engineering, a master's degree in nuclear engineering, and a Ph.D. in mechanical engineering.

Deputy Program Managers—Major Programs

Currently there are nine civilian Deputy Program Managers of major programs. Eight of the nine are GS/GM-15s and one is a GS-14. The occupational series of these personnel include: five GM-801 Supervisory Acquisition Management Engineers; one GM-855 Supervisory Electronics Engineer; one GS-855-14 Supervisory Electronics Engineer; and two GM-1101 Supervisory Acquisition Managers (from the General Business and Industry Occupational Series). All have undergraduate degrees in engineering disciplines, and three of the six master degrees are in business administration. Four have completed the Program Management Course, but none have completed Intermediate Service School. All exceed the experience requirements with an average of 22 years of acquisition experience.

The overall status of the civilian Deputy Program Managers in meeting education and experience requirements is summarized in Exhibit VI-92.

EXHIBIT VI-92—REQUIREMENTS FOR DEPUTY PROGRAM MANAGERS

[Major programs]

Requirements	Total number	Number complying	Percent
Education:			
Baccalaureate degree	9	9	100
Experience:			
Three years acquisition	9	9	100
One year procurement command	9	9	100

Deputy Program Managers—Non-Major Programs

The Air Force was unable to provide aggregate information on its civilian Program Managers and Deputy Program Managers of non-major programs.

REPRESENTATIVE PROGRAM OFFICES—AIR FORCE

A review of four major Air Force program offices provides additional insight into the qualifications and structure of Air Force Program Management. The four offices considered are the AMRAAM at the Munition Systems Division, the C-17 and F-15 programs at the Aeronautical Systems Division, and the National Aerospace Plane NASP program, which is a separate organization reporting directly to the commander of Air Force Systems Command.

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Advanced Medium Range Air-to-Air Missile (AMRAAM)

Program Managers

Tenure. The Advanced Medium Range Air-to-Air Missile (AMRAAM) program began in October 1975 when an Air Force and Navy tactical working group defined requirements for air-to-air weapons for 1985 and beyond. The Congress approved the missile's development in July 1976. Since September 1976, when the Secretary of the Air Force designated it a major program, the AMRAAM program office has had six different Program Managers with an average tenure of 25 months. Three of the Program Managers were Brigadier Generals and the other three were colonels. Three of the five previous Program Managers retired and two were reassigned. Only one served for four years.

Education and Training. All of the Program Managers have exceeded the educational standards by having master degrees. Most of their degrees were in a technical or engineering discipline. Information on their training was incomplete. However, of the three Program Managers for which information was available, only the present Program Manager has completed the Program Management Course.

Experience. For the four Program Managers for which information was available, all met the 8 years of acquisition experience requirement. Collectively, they averaged 12 years of acquisition experience.

Deputy Program Managers

There have been four AMRAAM Deputy Program Managers, all colonels. Their average tenure was greater than three years. Of the three for which information is available, all had master degrees, one had completed the Program Management Course, and the last two averaged 13 years of acquisition experience.

Contracting Officers

There have been two primary Procuring Contracting Officers (PCOs) assigned to the AMRAAM program, both civilians. The first served for over nine years, had 16 years of contracting experience and a master's degree in public administration. The current PCO has been assigned since November 1985, has a baccalaureate degree in business and 19 years of contracting experience.

Program Office Manning

As depicted by Exhibit VI-93, the AMRAAM Systems Program Office (SPO) is a large matrix organization consisting of five core directorates and seven collocated functional organizations dedicated to supporting the SPO. There are 168 personnel in the Program Office; this includes three each from the United Kingdom and the Federal Republic of Germany as well as 10 officers and civilians from the Navy as this is a joint program office.

The five core directorates are Acquisition, Advanced Projects, Configuration and Data Management, International, and Test. Within the core directorates, there are 52 Air Force personnel: 26 officers, 4 enlisted, and 22 civilians (12 of which are technical and

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professional personnel). The core military and civilian personnel, as of February 1989, are shown in Exhibit VI-94.

EXHIBIT VI-93

AMRAAM PROGRAM OFFICE

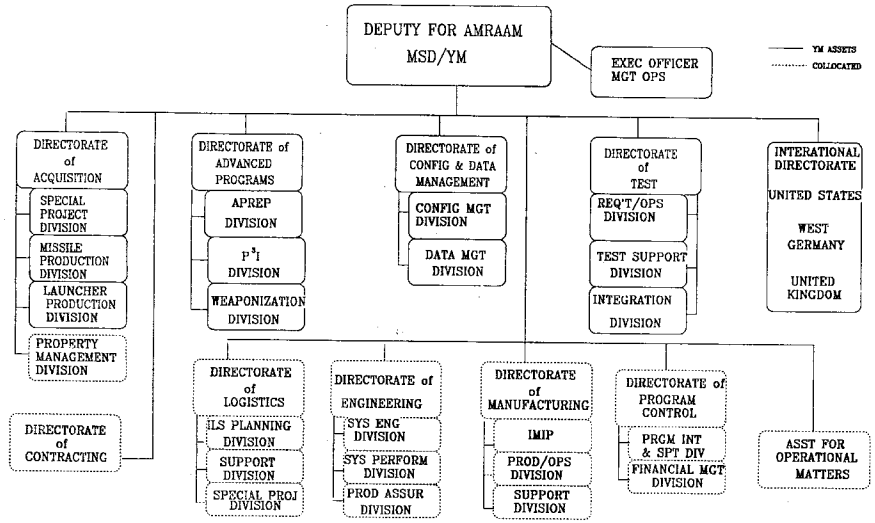

EXHIBIT VI-94—ADVANCED MEDIUM RANGE AIR-TO-AIR MISSILE (AMRAAM) JOINT SYSTEM PROGRAM OFFICE

Rank	AFSC	Job title	Number	Total
		CORE MILITARY OFFICERS		
B/Gen	0002	Program Director	1	1
Colonel	2716	Deputy Program Director	1	1
Lt. Col	2716	Directorate Chief	3	
	2716	Acquisition Management Officer	2	
	2816	Staff Dev Engineering Mgr	1	
	F2825	Deputy Director	1	7
Major	2716	Acquisition Management Officer	2	
	2816	Staff Dev Engineering Mgr	2	4
Captain	2724	Acquisition Project Officer	7	
	2825	Electronic Engineer	1	
	2855	Aeronautical Engineer	1	
	7024	Executive Support Officer	1	10
Lieutenant	2724	Acquisition Project Officer	3	3
		Total	26	26
		CORE MILITARY ENLISTED		
MSgt	46270	Acft Armament System Tech	1	1
TSgt	70270	Admin Technician	1	1
Sgt	70250	Admin Management Specialist	1	1

EXHIBIT VI–94—ADVANCED MEDIUM RANGE AIR–TO–AIR MISSILE (AMRAAM) JOINT SYSTEM PROGRAM OFFICE—Continued

Rank	AFSC	Job title	Number	Total
AIC	70230	Admin Management Specialist	1	1
		Total	4	4
		CORE CIVILIAN PROFESSIONS		
GM–14	0801	Superv General Engineer	3	GM–14
	0801	General Engineer	1	
	1101	Superv Acquisition Mgmt Spec	1	5
GM–13	0801	Superv Configuration Manager	1	
	0801	General Engineer	1	
	1101	Acquisition Management Spec	1	3
GS–12	0301	Data Management Specialist	1	
	0801	General Engineer	1	2
GS–11	0301	Configuration Management Spec	1	
	1101	Acquisition Management Spec	1	2
GS–07	0318	Secretary (Steno)	1	
	0344	Management Assistant	1	2
GS–06	0318	Secretary (Steno)	1	1
GS–05	0318	Secretary (Steno)	2	
GS–05	0318	Secretary (Typing)	3	5
GS–04	0318	Secretary (Typing)	2	2
		Total	22	22

The collocated organizations consist of five directorates: Program Control, Logistics, Engineering, Contracting, and Manufacturing. In addition, there is a Property Management Division and Assistant for Operational Matters. In the collocated organizations, there are 97 Air Force personnel: 31 officer, 10 enlisted, and 56 civilians—47 of which are technical or professional personnel. The breakout of officers and professional civilians is presented in Exhibit VI–95.

EXHIBIT VI–95—MATRIXED PERSONNEL

Officers	Number	Civilians	Number
Lieutenant Colonel	4	GM–15	1
Major	5	GM–14	5
Captain	15	GM–13	12
1st Lieutenant	4	GS–12	25
2nd Lieutenant	3	GS–11	4
Total	31	Total	47

F–15

The development of the F–15 air superiority fighter aircraft has been a model success story for the Air Force. The Office of Air Force History prepared a monograph on the origin and development of this aircraft (*The F–15 Eagle: Origins and Development 1964–1972*, November 1974). A brief review of the formation of the Systems Program Office is instructive. An F–X special projects office was established in August 1966 and headed by a colonel, who

served for almost two years. From 1967 to May 1968 the SPO's authorized strength grew from 17 to 50. On July 11, 1969 Brigadier General (Selectee) Benjamin N. Bellis was appointed as SPO director. General Bellis was one of the Air Force's most experienced research and development managers with service dating back to an assignment to the Special Weapons Project in 1947. He worked on the development of the Matador and Atlas missiles and later managed the F–12 and SR–71 aircraft development projects. By July 1969, the F–15 was identified as the model development and procurement program for both the Air Force and Department of Defense. In this regard, General Bellis manned, centralized and streamlined communications in managing the program. He was given authority to select the best personnel he could find. His staff rapidly grew to 230 people, half military and half civilian. Because he was committed to the career advancement of his staff, he was able to build a well-motivated and tightly-knit team. He also increased the number of directorates within the "Super SPO" by adding procurement and production (now known as contracting and manufacturing), test and deployment, configuration management, integrated logistics support, program control, systems engineering, and projects. The latter was unique in that it was responsible for assuring the development and availability of vital subsystems and components: airframe, avionics, and armament. He also had liaison officers from Tactical Air Command, Air Force Logistics Command and Air Training Command. There was a new streamlined reporting channel called Blue Line from the Program Director directly to the Commander of Air Force Systems Command, Chief of Staff, and Secretary of the Air Force. These streamlined procedures closely paralleled Deputy Secretary of Defense David Packard's views on weapon systems management. General Bellis described his role in 1970:

> I am the single individual who must account for the progress, expenditure of funds, problems and solutions that will make the F–15 a successful part of the Air Force inventory . . . I am the single source of decision for integrating all elements of the system . . . With this type of control, there can be no excuses for uncontrolled changes.

Program Managers

Since the inception of the F–15 SPO there have been twelve different Program Managers. The Air Force only has education, training and experience information on the last three, all colonels.

Tenure. The average tenure for the 11 previous Program Managers was 22.5 months. The last three Program Managers averaged over 24 months in the position. One retired after serving slightly over 1 year and the other left after serving less than 3 years for a promotion to manage the C–17 program. The current Program Manager has been in the job for two years.

Education and Training. Information is available only for the two most recent Program Managers. Both exceed the educational requirements with master degrees in technical and management disciplines. Both completed the Program Management Course.

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Experience. Both Program Managers exceeded the experience requirements with an average of over 10 years in acquisition. The current Program Manager also served previously for two years as a Program Manager.

Deputy Program Managers

The Air Force had information on the last four Deputy Program Managers, who served an average of 17 months. The last two were GM-15 civilians; the prior two, colonels.

Education and Training. Of the three for which information is available (2 civilians and one military), all exceeded the education requirements with master degrees. Two of the three had completed the Program Management Course.

Experience. The three most recent Deputies averaged over 14 years of acquisition experience. The two civilians averaged over 16 years of experience. Also, all three averaged over 8 years of experience in Program Management.

Contracting Officer

The Air Force has information on two principal PCOs, both civilians. The first is the Division Chief for the F-15 Airframe Division. This individual, appointed in October 1985, is a GM-1102-13 with 15 years of contracting experience and an MBA degree. The other individual is a GS-1102-12 with 15 years of contracting experience and an associate degree in accounting.

Program Office Manning

The F-15 SPO remains a matrix organization, as indicated in Exhibit VI-96. There are four core offices: Projects, Acquisition Support, Test, and Management Operations. Six offices provide matrix support: contracting, engineering, safety, program control, logistics, and manufacturing/quality assurance. Further, there is a Tactical Air Command Systems Office (TACSO), which is collocated with the Program Manager to assure that the operational requirements of the using command are considered. Total manning of both core and matrix offices is 240 personnel: ninety-five are military (69 officers and 26 enlisted) and 145 civilians, 37 of which are administrative and clerical personnel. Within the core SPO there are 81 people: 46 are military (officers and enlisted); 35 are civilians. Within the matrix support offices, there are 49 military (officers and enlisted) and 110 civilians. Most of the officers are in the 27XX Acquisition Management series with the remainder in the 26XX scientific and engineering series. The distribution of military officer and comparable professional civilian personnel in both core and matrix officers is shown in Exhibit VI-97.

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EXHIBIT VI-96

F - 15 SYSTEM PROGRAM ORGANIZATION

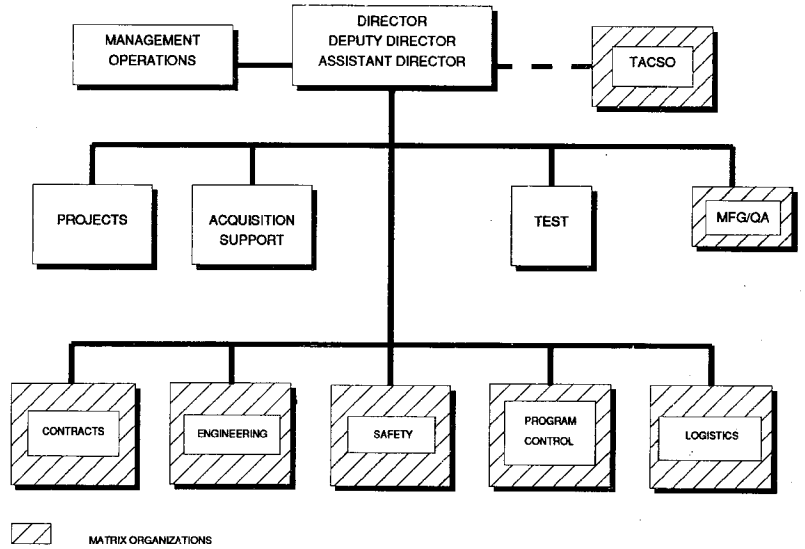

EXHIBIT VI-97—MILITARY OFFICERS

Rank	AFSC	Job title	Number	Total
Colonel	0029	Program Director	1	
(0-6)	2716	Assistant Program Director	1	
	6596	Director of Contracting	1	3
Lt. Colonel	2716	Director for Projects	1	
(0-5)	2716	Deputy Director for Projects	1	
	2716	Acquisition Management	1	
	2716	Program Management	2	
	0041	Dir. for Acquisition Logistics	1	
	2716	Director for Test	1	
	2716	Deputy Director for Test	1	8
Major	1455	Deputy for Flight Operations	1	
(0-4)	2255	Acquisition Management	1	
	2716	Acquisition Management	2	
	6516	Dep. Dir. Manufacturing/QA	1	
	2855	Aeronautical Engineer	1	
	6516	Procuring Contracting Officer	1	
	6516	Procuring Contracting Officer	1	
	7016	Dir. Management Operations	1	
	2716	Management Officer	2	
	1455Y	TAC Liaison Office (Rated Pilot)	1	12
Captain	2255	Assistant Program Manager	1	
	2724	Program Management	9	
	2724	Acquisition Management	1	
	2825	Electronic Engineer	2	

EXHIBIT VI-97—MILITARY OFFICERS—Continued

Rank	AFSC	Job title	Number	Total
	2821	Electronic Engineer	1	
	2895	Project Engineer	1	
	2665	Nuclear Research	1	
	6534	Procuring Contracting Officer	5	
	6736	Budget Officer	1	
	2724	Analyst	2	
	2724	Managers	3	
	2724	Support Equip. PM (SEPM)	4	
	6624	SEPM	2	
	4024	Logistics Support	2	
	6746	Financial Management	3	38
1st Lt.	4925	Program Manager	1	
	2724	Program Management	2	
	2724	Acquisition Management	1	
	2855	Acquisition Log. Engineer	1	5
2d Lt.	2831	Mechanical Engineer	1	
	6534	Contracts Manager	1	
	2724	Dir. for Safety	1	3

CIVILIAN PROFESSIONAL

Grade	OCC—Series	Job title	Number	Total
GS/GM-15	801	General Engineer	2	
	501	General Accounting	1	3
GS/GM-14	801	General Engineer	4	
	301	Administration and Program	1	
	1150	Industrial Specialist	1	
	855	Electronics Engineer	1	
	861	Aerospace Engineer	1	
	1102	Contracting	1	
	501	General Accounting	1	10
GS/GM-13	1101	Business and Industry	2	
	801	General Engineer	2	
	301	Administration and Program	2	
	896	Industrial Engineer	1	
	855	Electronics Engineer	17	
	861	Aerospace Engineer	3	
	830	Mechanical Engineer	1	
	180	Psychology	1	
	1102	Contracting	4	
	546	Logistics Management	2	
	501	General Accounting	2	
	345	Program Analysis	1	38
GS-12	301	Administration and Program	4	
	1150	Industrial Specialist	1	
	855	Electronics Engineer	12	
	861	Aerospace Engineer	5	
	801	General Engineer	1	
	896	Industrial Engineer	1	
	1102	Contracting	11	
	346	Logistics Management	4	
	1101	General Business and Industry	1	
	501	General Accounting	2	
	560	Budget Analysis	1	43
GS-11	801	General Engineer	1	
	301	Administration and Program	2	
	1102	Contracting	1	
	346	Logistics Management	1	
	501	General Accounting	1	6
GS-9	1102	Contracting	1	1

CIVILIAN PROFESSIONAL—Continued

Grade	OCC—Series	Job title	Number	Total
GS-7	855	Electronics Engineer	1	
	346	Logistics Management	1	
	301	Administration and Program	1	3
GS-6	855	Electronics Engineer	1	1
GS-5	896	Industrial Engineer	1	
	1102	Contracting	1	
	301	Administration and Program	1	3

C-17

Program Managers

There have been four different Program Managers for the C-17 program, all colonels—two Brigadier General Selectees. The current Program Manager is a Brigadier General.

Tenure. The average tenure of the four C-17 Program Managers is 29 months. The first Program Manager had the longest tenure: 6 years and 9 months. The shortest tenure was ten months. Reasons for departure of the three previous Program Managers was retirement (1) and promotion (2). The current Program Manager was assigned in August 1987.

Education and Training. All four Program Managers exceed the minimum educational standards with master degrees; all had an academic background in either engineering or physical science. Only the current Program Manager, however, has completed the Program Management Course.

Experience. Three of the Program Managers exceeded the eight years of acquisition experience requirement. The other had seven years of acquisition experience. The four averaged almost nine years of acquisition experience. Three of the four also had previous Program Management experience.

Deputy Program Managers

There have been three Deputy Program Managers, two civilians and one colonel. The two previous Deputies left for retirement (civilian) and reassignment (military). The current Deputy is a civilian appointed in March 1988.

Education and Training. All three had at least a baccalaureate degree in engineering. None completed the Program Management Course.

Experience. The three Deputies averaged fourteen years of acquisition experience; the colonel had seven years and the two civilians thirteen and twenty-two years respectively.

Contracting Officers

The Air Force provided information on the current and most recent Directors of Contracts, both colonels and the current Deputy Director, a GM-1102-14. Both officers had MBA degrees; the former Director had 10 years of contracting experience and the current Director only has 4 years of contracting experience. The ci-

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vilian Deputy Director has a baccalaureate degree in industrial management, an MBA, and 13 years of contracting experience.

Program Office Manning

The C-17 SPO, which is depicted in Exhibit VI-98, is organized into ten functional elements: Projects, Test, Development and Training, Configuration and Data Management, Management Information, Engineering, Contracting, Program Control, Logistics, Manufacturing and Quality Assurance, and System Safety. There is also an Army Liaison Office. Within the core SPO, there are sixty-six personnel: 40 are military (35 officers and 5 enlisted) and 27 civilians (13 of which are clerical and administrative). A breakout of officers and enlisted personnel in the C-17 Program Office are shown in Exhibit VI-99.

EXHIBIT VI-98

C - 17 SYSTEM PROGRAM OFFICE

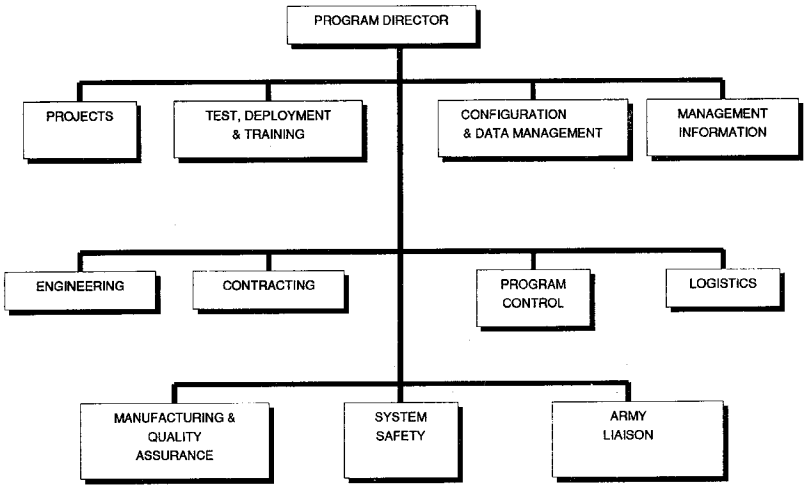

EXHIBIT VI-99—C-17 MILITARY PROFESSIONAL STAFF

Rank	AFSC	Job title	Number
CORE MILITARY OFFICERS			
Brigadier Gen.	0029	Program Director	1
Colonel	2716	Acquisition Mgmt. Officer	2
Lt. Colonel	2716	Acquisition Mgmt. Officer	7
Major	2716	Acquisition Mgmt. Officer	11
Captain	2724	Acquisition Mgmt. Officer	12
Lieutenant	2724	Acquisition Mgmt. Officer	2

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EXHIBIT VI-99—C-17 MILITARY PROFESSIONAL STAFF—Continued

Rank	AFSC	Job title	Number
		Total	35
CORE MILITARY ENLISTED			
M. Sgt	M11470	Loadmaster	1
M. Sgt	70270	Administrative Specialist	1
S. Sgt	70250	Administrative Specialist	1
Sgt	70250	Administrative Specialist	1
A1c	70250	Administrative Specialist	1
		Total	5

Exhibit VI-100 shows core civilian professionals in the C-17 program office. Of the fourteen professional or technical civilians, the overwhelming majority are in acquisition management with the rest in configuration management.

EXHIBIT VI-100—CORE CIVILIAN PROFESSIONS

Grade	GCC-Series	Title	Number	Total
GM-15	801	Supervisor Acquisition Mgt. Eng.	1	1
GM-14	801	Supervisor Acquisition Mgt. Eng.	1	
GM-14	301	Supervisor Configuration Mgt. Spec	1	2
GM-13	301	Supervisor Configuration Mgt. Spec.	1	
GS-13	1101	Acquisition Mgmt. Specialist	1	
GS-13	801	Acquisition Mgmt. Engineer	2	4
GS-12	301	Configuration Mgmt. Specialist	3	3
GS-07	318	Secretary	1	
GS-07	344	Lead Management Assistant	1	2
GS-06	344	Management Assistant	1	
GS-06	318	Secretary	4	5
GS-05	1101	Acquisition Management Specialist	1	
GS-05	801	Acquisition Management Engineer	1	
GS-05	301	Configuration Mgmt. Specialist	2	
GS-05	318	Secretary	1	
GS-05	303	Data/Program Mgmt. Clerk	2	7
GS-04	303	Configuration/Test Clerk	2	
GS-04	344	Management Assistant	1	3
		Total	27	

National Aerospace Plane (NASP) Joint Program Office

The NASP JPO is a joint Air Force and National Aeronautics and Space Administration (NASA) Program Office. Due to its importance, technical complexity, and scientific challenges, the Program Manager reports directly to the Commander of Air Force Systems Command, who is the PEO. This is the only program in the Air Force where the Program Office is a separate organization independent of the Product Divisions and the PEO is a 4-star general.

Program Manager

Tenure. There has only been one NASP Program Manager since the program's inception in 1985, a civilian member of the Senior Executive Service.

Education, Training, and Experience. The Program Manager for the NASP is the only civilian Program Manager of a major Air Force program. This individual's qualifications and experience are extensive and far exceed the minimum standards except that he has not completed the Program Management Course.

Deputy Program Manager

There are three NASP Deputy Program Managers, one each for the Navy, NASA, and the Air Force. The Deputy Program Managers for the Navy and NASA are civilians while the Air Force Deputy is a lieutenant colonel sitting in a colonel position. The Air Force Deputy was assigned in March 1988, the NASA deputy in May 1986, and the Navy deputy in August 1986.

Education and Training. The Air Force Deputy Program Manager has a baccalaureate in aeronautical engineering and a master degree in business administration. He has completed the Program Management Course.

Experience. The Air Force Deputy Program Manager has extensive experience as a fighter pilot and test pilot. His acquisition experience is limited with his first acquisition assignment the NASP Program Office in June 1986.

Contracting Officers

There are six contracting personnel assigned to support the NASP Program Office; five are GS-1102 civilians and one is a military officer. The officer is in the contracting career field, has a master's degree and five and one-half years of contracting experience. The civilians are all well educated (three with master degrees and the other two with baccalaureate degrees), and they average 13.5 years of contracting experience. The Contracting Officer has been in his position since December 1985.

Program Office Manning

The NASP JPO is a joint program office having personnel from NASA and the Navy as well as the Air Force. As indicated in Exhibit VI-101, there are eight separate directorates plus a management operations office. This joint program has far more civilian control than normally found in Air Force SPO's, as evidenced by the distribution of directors displayed in Exhibit VI-102.

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EXHIBIT VI-101

NASP JPO ORGANIZATION

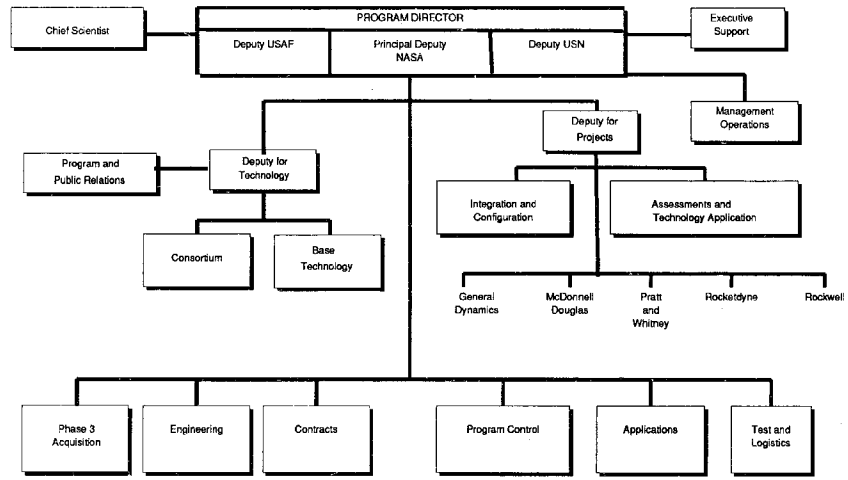

EXHIBIT VI-102

Directorate/deputy for	Director	Deputy
Phase 3 Acquisition	Military (AF)	Civilian (NASA).
Engineering	Civilian (AF)	Civilian (AF).
Technology	Civilian (AF)	Civilian (NASA).
Program Control	Civilian (AF)	Military (AF).
Applications	Military (AF)	Civilian (NASA).
Contracts	Civilian (AF)	None.
Test and Logistics	Civilian (NASA)	Civilian (AF).
Projects	Civilian (NASA)	Civilian (AF).

This represents a complete reversal of the typical relationship of military to civilian management positions within SPO's.

Within the core JPO there are a total of 38 authorized personnel: 28 military (22 officers and 6 enlisted) and 10 civilians. A breakout of the military and civilian personnel in the core JPO is provided in Exhibits VI-103 and VI-104. It is interesting to note that while the program officer leadership is primarily civilian, its staff is predominantly military. Of the 10 Air Force civilians in the core functions of the Program office, four are professional and technical personnel, including the Program Manager—and six are clerical.

EXHIBIT VI–103—CORE MILITARY OFFICERS

Rank	AFSC	Job title	Number	Total
Colonel	2716	Acquisition Management Officer	1	1
Lt. Colonel	2716	Acquisition Management Officer	5	
	2716	Project Manager	1	6
Major	2716	Acquisition Management Officer	8	
	2816	Staff Development Engineer Mngr	1	
	2855	Aeronautical Engineer	1	10
Captain	2724	Acquisition Project Officer	2	
	2845	Astronautical Engineer	1	3
Lieutenant	2724	Acquisition Project Officer	2	2
		Total		22

EXHIBIT VI–104—CORE CIVILIAN PROFESSIONS

Grade	Series	Title	Number	Total
SES	ES–0861	Program Director	1	1
GS–14	0801	Systems Study Engineer	1	1
GS–13	0801	Test Management Engineer	1	1
GS–07	0341	Administrative Assistant	1	1
	0318	Secretary (Stenography)	1	1
GS–06	0318	Secretary (Typing)	5	5
		Total		10

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CHAPTER VII—PROFESSIONALISM OF THE ACQUISITION WORKFORCE

A premise of this report, and a recommendation in many of the aforementioned commission reports, is that the professionalism of the acquisition workforce must be improved. As noted in Chapter I, we have used the most commonly accepted definition of "professionalism"—the conduct, aims, or qualities that characterize a profession or professional person. The measure of "professionalism" is difficult because professionalism embodies attitudes, values, and motivations which are difficult concepts to grasp and to measure. Instead, many use as a substitute measure membership in a "profession"—the requirements of which include: entry criteria, required specialized knowledge and public attestation to certain ethical standards.

This chapter explores the elements of professionalism and discusses what is or may be required to establish the acquisition career field as a profession. Two basic elements of a profession—education and training—are highlighted.

THE CONCEPT OF PROFESSIONALISM

Definition of Terms

Any consideration of value-laden terms such as professionalism require careful and precise delineation of their definition and usage. Thus, this section discusses the terms profession, professional, professionalism, and professionalization and describes their interrelationship and characteristics. The goal is, to paraphrase Dylan Thomas, to "take a debauched and prostituted word . . . and to smooth away the lines of its dissipation, and to put in on the market again, fresh and virgin."

Profession

A profession is commonly defined as a body of qualified persons of one specific occupation or field. This definition is quite broad and is useful as a sociological tool. However, it fails to convey the sense that some occupations or disciplines are distinctly different from other economic activities. An earlier, more restrictive definition, conveys the sense of differentiation: an occupation or vocation requiring training in the liberal arts or the sciences and advanced study in a specialized field. Historically, a profession is a vocation or calling that involves some branch of learning. Those who profess it are obligated to put integrity above personal gain in the skills that they exercise. The vows made upon entry into one of the three ancient professions—medicine, law, and divinity—require a contract between the inductee and the profession, an offer and an ac-

ceptance. The offer is made by the profession in terms of its unique skills and the inherent responsibility to convey something of value to society. The acceptance is society's official institutionalized recognition of that particular community as something special. The term profession thus denotes a disciplined community of persons engaged in a common service activity predicated on a body of knowledge.

Professional

A professional is engaged in activities suitable of a profession, normally requiring great skill or experience in a particular field or discipline. A professional thus performs a service for society, individually or collectively. Implicit is a responsibility to society. In a formal sense, the professional is an expert in a field which requires specific prerequisites for entry. Experience is acquired only after prolonged education and training. And throughout their careers, professionals must keep abreast of the changes in their occupation via specialized training and participation in activities of professional associations. In common usage, however, a professional is anyone who knows his or her job and does it with thorough competence. In common parlance then, one can be a "professional" without being a member of a profession.

Professionalism

Professionalism is derived from the term profession—an occupation in which one professes to be skilled. It also refers to a body of persons engaged in a calling. Significantly, it derives from the act of professing or publicly declaring entry into a religious order.

Professionalization

The term professionalization is defined as the "acquisition of professional characteristics by occupation, without an increase in skill." In this sense then, the skills and competencies do not change. Rather, society's view of the importance of those skills in terms of their relative value to society changes. The group involved thus crosses the threshold from an occupation to a profession.

Characteristics of a Profession

A profession has six qualifying characteristics: a specialized body of knowledge, requirements for education and training, professional organizations or societies, certification or licensing, a code of ethics, and social utility. A profession possesses a defined body of specialized knowledge gained through specialized preparation and degree programs (generally at recognized institutions of learning). Also present is a strong feeling of class honor and solidarity, manifested in professional organizations which set standards, test competence, and provide essential information to the members of the profession. The product of this activity is official regulation and licensure. Another product is self-disciplining, or self-policing, embodied in a code of ethics enjoining the responsibility of the profession to the collective it serves. The last element of profession is a high degree of autonomy and responsibility which confers considerable social power and high social status; e.g., medicine, law, divinity, engineering, and university teaching, have a marked degree of institutionalization as professions. The latter characteristic is the final product conferred by society in recognition of the social utility which the profession's unique responsibilities provide to society.

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Body of Knowledge

A profession has an established body of knowledge, developed and maintained in academia. This body of knowledge is inextricably tied to an academic curriculum, such as engineering or the law. The body of knowledge is attained through scholastic advancement through this curriculum. Inherently, this body of knowledge is dynamic and expanding. Thus the evolution of this knowledge is explicitly tied to on-going research.

Education and Training

Because the body of knowledge in the profession is dynamic, the members of the profession are ever-learning. This on-going education, training, and self-development should continue after entry into the profession and is generally accomplished through participation in seminars and refresher courses and reading academic journals.

Professional Organizations

A significant characteristic of a profession is the presence of a representative association. Associations are the guidons of the profession. They seek to further the interests of the community. Associations offer education, enhance the body of knowledge, and encourage the professional development of members through various programs, including meetings, workshops, and seminars; publishing scholarly periodicals, newsletters, and other forms of communication; promulgating codes of ethics and ensuring high standards of integrity; and promoting competence through certification procedures based on experience, education, and a rigorous examination.

Certification or Licensing

Professional associations can be perceived as a quality control mechanism of the profession, ensuring quality education and membership competence. One tool to assure membership meets acceptable standards is a certification program. Certification encourages individual development, establishes standards of achievement, measures knowledge, and recognizes the professional competence of personnel.

Codes of Ethics

Codes of ethics and standards of conduct are based on a concern and responsibility for the public welfare. The professional is in a position of trust, which is shared by all members of the particular discipline or community.

Social Utility

A critical factor in the professionalization process is to fill a social need. Recently, Professor Fritz Stern of Columbia University and visitor at the Institute for Advanced Study at Princeton University observed: "progress of a profession depends not only, or not

even principally, on advances in knowledge but on social needs, and on the relation between these needs and the skills of the profession." In other words, the last evolutionary step or phase required to move from occupation to profession depends on the social utility provided by the practitioners of the profession. There has to be a desire on the part of society to see the need for the profession. This social need is in reciprocal juxtaposition to the social service provided.

EDUCATION

Education is a prerequisite for a professional workforce. In modern post-industrial society, education is the lubricant for the machine of progress. For many years, outside experts and commissions have decried the absence of educational requirements, including a college degree, for the federal civilian procurement workforce. The focus of this section will be on contracting civilians—GS-1102 personnel—for two reasons. First, nearly all of the limited number of civilian Program Managers have scientific or engineering educations and thus, *ipso facto,* have college degrees. Second, nearly all military officers also have a college education. Thus contracting civilians are the only element within the scope of this report for which the issue of education pertains.

Background

In their classic 1962 study on weapons acquisitions, *The Weapons Acquisition Process: An Economic Analysis,* Merton J. Peck and Frederick M. Scherer recognized the crucial importance of a quality contracting or procurement workforce, and lamented the absence of college educated personnel. They noted that in a 1957–1958 study of military and civilian procurement personnel, only 44 percent were college graduates and argued that although "formal education is by no means a perfect indicator of technical competence, it does represent the best objective measure for which data are available."

Almost a quarter century later, the Packard Commission re-emphasized the need for a quality acquisition workforce and observed that:

> Federal regulations should establish business-related education and experience criteria for civilian contracting personnel, which will provide a basis for the professionalization of their career paths. Federal law should permit expanded opportunities for the education and training of all civilian acquisition personnel.

The Commission called for the establishment of minimum education requirements for contracting civilians, including a requirement for 24 college semester hours in business-related courses or equivalent experience, as entry-level criteria.

While educational requirements for job entry, including a baccalaureate degree, have long been recognized in the technical and scientific disciplines, great difficulty has been encountered in establishing minimum educational requirements for the civilian contracting workforce (GS-1102 series). In this regard it is important

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to note that the issue relates only to civilian contracting personnel in the GS-1102 occupational series. Military officers have, in the main, been required to have a college degree for some years. An indication of the problem can be gleaned from comparisons of the educational levels of various segments of the career field.

Comparison of Contracting Civilians to Military Officers

Exhibit VII-1 provides a comparison of the educational achievements of military officers in contracting with DOD civilians in the contracting field.

EXHIBIT VII-1—EDUCATIONAL COMPARISON OF OFFICERS TO CIVILIANS

[In percent]

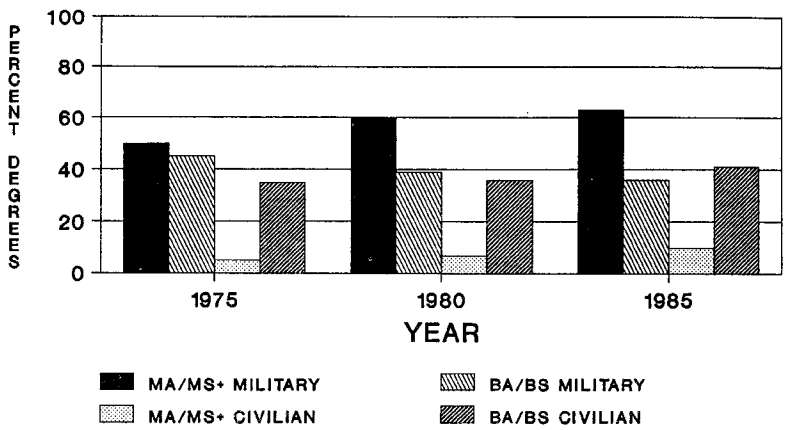
	1975		1980		1985	
	Mil	Civ	Mil	Civ	Mil	Civ
Army:						
BA/BS	56	30	26	34	13	36
MA/MS	40	4	72	7	86	8
Total	96	34	98	41	99	44
Navy:						
BA/BS	42	31	40	32	39	40
MA/MS	43	6	56	5	54	9
Total	85	37	96	37	93	49
Air Force:						
BA/BS	43	41	40	38	36	45
MA/MS	56	6	60	11	64	13
Total	99	47	100	49	100	58

Source: Defense Manpower Data Center.

Exhibit VII-2 indicates the relative increases in college educated civilians and officers from 1975 to 1985.

EXHIBIT VII-2

EDUCATIONAL COMPARISON OF OFFICERS TO CIVILIANS DEPARTMENT OF DEFENSE



Comparison of GS-1102 Workforce—DOD and Other Federal Agencies

Even though comparisons between military officers and contracting civilians portray the civilian workforce as relatively uneducated, the GS-1102 personnel within the Department of Defense are relatively well educated compared to their contracting counterparts throughout the Federal government. Exhibit VII-3 provides a comparison of the government-wide figures of those employees holding college degrees for 1987 (the most recent figures available) and indicates that the DOD GS-1102 workforce does not fare poorly in comparison to other Federal agencies. In the General Services Administration, the largest civilian procurement agency, only 34 percent of GS-1102 personnel employed had college degrees—a significantly lower percentage than for any of the Military Departments or Defense Logistics Agency.

EXHIBIT VII-3—COLLEGE DEGREES HELD BY GS-1102 WORKFORCE

Rank	Agency	Percent	Number personnel
1	National Science Foundation	100	4
2	NASA	72	749
3	Energy	66	495
4	EPA	62	177
5	Labor	60	70

EXHIBIT VII-3—COLLEGE DEGREES HELD BY GS-1102 WORKFORCE—Continued

Rank	Agency	Percent	Number personnel
6	Air Force	59	6391
7	Commerce	57	147
8	HUD	56	64
9	Nuclear Regulatory Commission	55	40
9	Other DOD	55	5142
10	Treasury	50	232
10	Navy	50	4992
10	FEMA	50	30
11	HHS	47	625
12	State	46	63
13	Army	46	6363
20	General Services Administration	34	1101

(Source: Federal Acquisition Institute, ***Report on the Acquisition Work Force Fiscal Year 1987).***

The educational level of contracting personnel in the Department of Defense has exceeded the Federal government average by a slight margin since 1981. The Air Force has had a significantly greater proportion of contracting employees with college degrees than the Government-wide average for the past 10 years. The Navy lagged significantly behind the government-wide average until 1987.

Government-Wide Distribution of Degrees by Employee Grade Level

According to the 1987 figures, fewer of the GS-9/11 or "journeyman" level contracting employees have college degrees than either the senior level employees, or the entry level employees, as indicated in Exhibits VII-4 and VII-5.

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EXHIBIT VII-4

GS-1102 GRADE LEVELS PERCENT WITH DEGREES

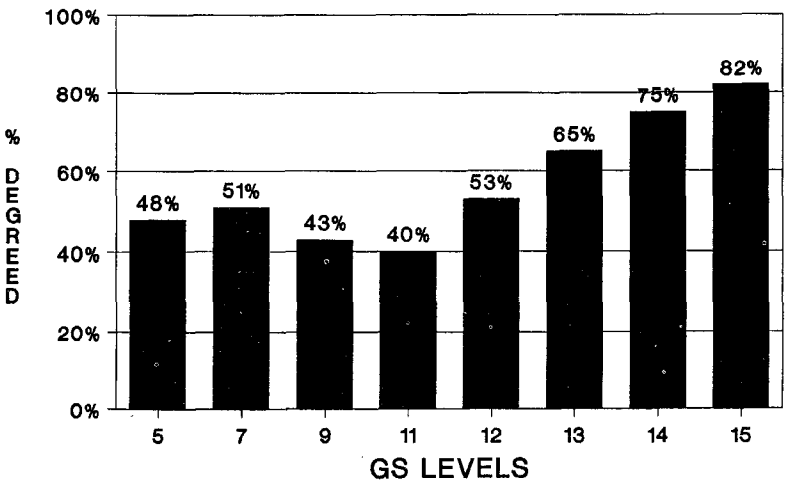


EXHIBIT VII-5—CONTRACTING CIVILIANS

[Percent with college degree]

	GS-5/7	GS-9/11	GS-12/15
Government-wide	50	41	60
Air Force	53	50	69
Army	54	37	53
Navy	49	41	58
DLA	58	47	63

(Source: Federal Acquisition Institute, ***Report on the Acquisition Work Force Fiscal Year 1987***).

Comparisons to Other Administrative Series Within DOD

As shown by Exhibit VII-6, contracting personnel are significantly better educated than personnel in other administrative series.

EXHIBIT VII-6—GS-1102 VERSUS ADMINISTRATIVE SERIES

[In percent]

	Army	Navy	Air Force	DLA
GS-1102:				
Bachelor degree	38	41	45	47
Master degree	8	10	15	9

EXHIBIT VII-6—GS-1102 VERSUS ADMINISTRATIVE SERIES—Continued

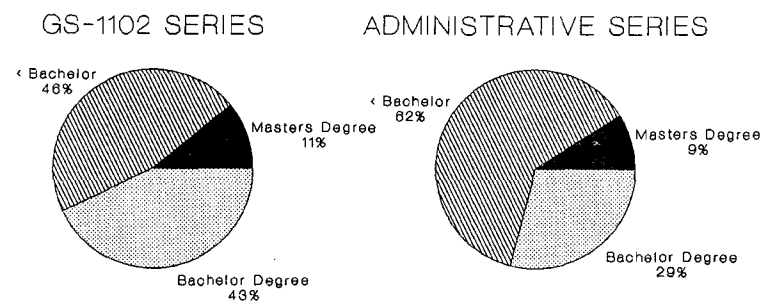
[In percent]

	Army	Navy	Air Force	DLA
Total	46	51	60	56
Admin series:				
Bachelor degree	29	28	28	29
Master degree	9	8	9	6
Total	38	36	37	35

Additionally, as presented in Exhibit VII-7, the relative percentages of DOD GS-1102 personnel with college educations compares favorably to the overall administrative series totals in DOD.

EXHIBIT VII-7

GS-1102 VERSUS ADMINISTRATIVE SERIES DEPARTMENT OF DEFENSE TOTAL



Trends

Trend Toward a Better Educated Workforce

There has been significant progress in developing a college educated contracting workforce within DOD. As previously discussed in Chapter V, the percentage of the DOD GS-1102 workforce having a baccalaureate degree increased from 32 percent in 1973 to 53 percent in 1988. Exhibit VII-8 shows the relative percentages of civilian degrees by service.

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EXHIBIT VII-8—COMPARISON OF DOD GS-1102 WORKFORCE WITH COLLEGE DEGREE

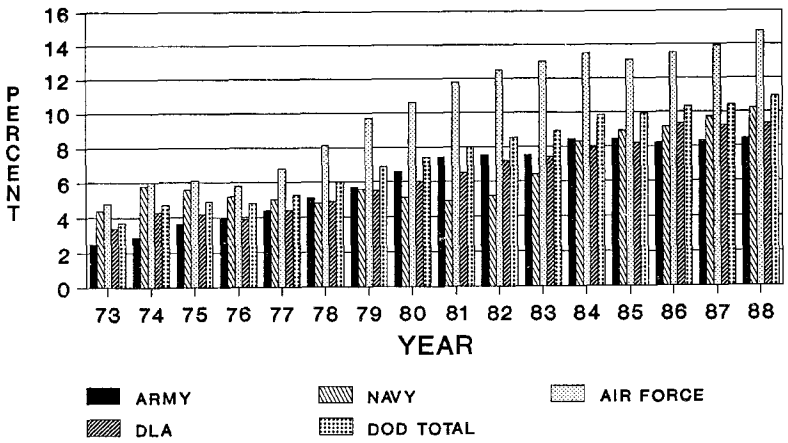
[In percent]

	1978	1979	1980	1981	1982	1983	1987
Total	42	43	42	42	42	44	51
DOD	42	43	44	43	43	45	52
Army	39	40	40	41	42	42	46
Navy	35	39	37	33	28	38	50
Air Force	48	49	49	49	50	52	59

The number of individuals in contracting with advanced degrees has also increased; again, as shown in Exhibit VII-9, the Air Force has consistently had the largest percentage of the contracting workforce with advanced degrees. Throughout this period, the Air Force led the other services and DLA in the proportion of its workforce with a college education.

EXHIBIT VII-9

PERCENT OF CIVILIAN WORKFORCE WITH ADVANCED DEGREES



Nationwide Educational Trends

While there is a positive trend in the educational level of the contracting workforce, any conclusions drawn from this trend must be tempered by the fact that there has been an increase, by any measure, of the number of Americans graduating from college. The number of people receiving a bachelor degree almost doubled between 1965 and 1980 from 501,000 to 929,000. The number of individuals receiving advanced degrees rose from 162,000 to 401,000

during the same period. By 1988, one of every four American workers was a college graduate compared with one in five 10 years ago. Notwithstanding the fact that the national percentage of college degree holders is increasing, the percentage of Federal workers with a degree is still greater than the national workforce with 31 percent compared to 23 percent of all U.S. workers. Further, this represents an increase from about 25 percent in 1976, according to *Civil Service 2000*—an analysis prepared by the Hudson Institute for the Office of Personnel Management.

This increase is largely attributable to the growth in the Federal professional and administrative workforce vis-a-vis the clerical and technical workforce. According to the *Civil Service 2000* report, between 1976 and 1986 the Federal professional and administrative workforce grew by 144,000, and college graduates in these two categories grew by 128,000, as indicated in Exhibit VII-10. Conversely, the numbers of technical and clerical workers—among whom only nine percent are college graduates—decreased by 48,000. Thus, almost all of the increase in the college-educated share of the Federal workforce came from the shifting mix of jobs within the Federal sector.

EXHIBIT VII-10—PROFESSIONAL AND ADMINISTRATIVE WORKFORCE

	Total number	College grads	Percent
1976	611,000	349,000	57
1986	755,000	477,000	63

Educational Level by Form of Entry Into Government Service

There is also an important nexus between educational level and source of initial recruitment. Available data on education and source of intake of GS-1102 personnel since 1978 indicates a high correlation between external hires and college degrees (Federal Acquisition Institute, *Report on the Acquisition Work Force Fiscal Year 1982, 1983,* and *1987).* During the period from Fiscal Years 1979 through 1982, 66 percent of external hires were college graduates whereas only 26 percent of internal hires had degrees. A large proportion of external hires in 1987 had a college degree (83 percent)—compared to 69 percent of external hires with degrees in Fiscal Year 1983—whereas only 35 percent of those recruited into the GS-1102 series from within the Government had a degree. Also, 28 percent of external hires with a degree were business majors compared to just 14 percent of internal hires.

Historically, the government has manifested a marked proclivity to hire into the GS-1102 workforce from internal sources. Exhibit VII-11 indicates the relative percentages of internal to external hires government-wide between 1979 and 1987. As shown by Exhibit VII-12, DOD had percentages comparable to the government-wide data, with the Army hiring the largest percentage externally and the Navy the least.

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EXHIBIT VII-11

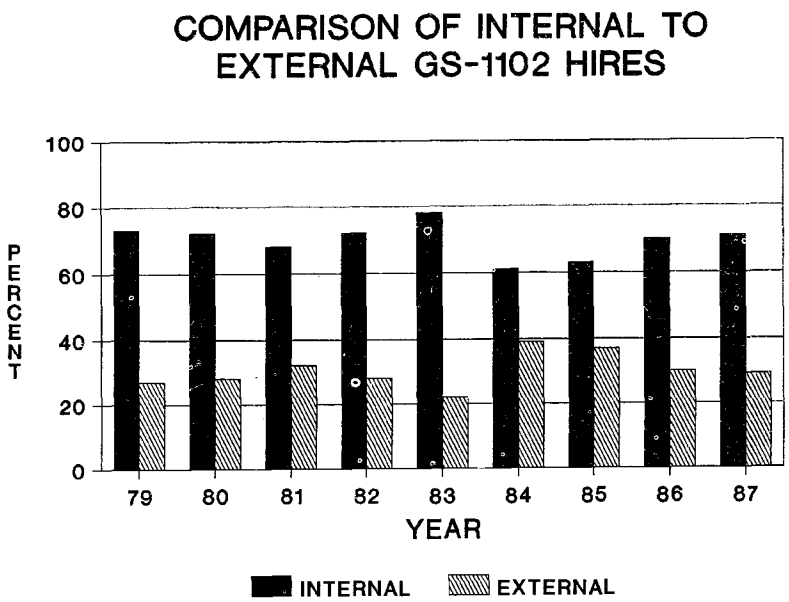

EXHIBIT VII-12—COMPARISON OF EXTERNAL TO INTERNAL HIRES GS-1102 IN FY 1987

[In percent]

	Internal	External
Air Force	64	36
Army	63	37
Navy	72	28
DLA	67	33

Fields of Degrees

Most of the college degrees (59 percent in fiscal year 1987) are in business, law, and public administration, with 53 percent of the total in business. This compares favorably with the 22 percent hired with degrees in business during the period of fiscal years 1979–1982. However, this growth in business-majors within the workforce must be addressed within the context of a significant increase in business majors. As indicated by Exhibit VII-13, while the total number of college graduates increased only slightly between 1975 and 1984, the number graduating in business and management increased significantly.

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EXHIBIT VII-13—INCREASE IN COLLEGE GRADUATES

	1975	1980	Percent increase	1984	Percent increase
Total	922,933	929,417	1	974,309	5
Business	133,010	185,361	39	230,031	24
Percent graduates	14	20		24	

TRAINING

Clarion calls for a well trained acquisition workforce have been a hallmark of past critiques and commentaries of Department of Defense acquisition. In the Report of Task Group 6, it was noted that in "the field of procurement, it is recognized that inadequate training of procurement personnel has frequently been the basic cause of costly procurement deficiencies." In 1986 the Packard Commission observed that the Defense acquisition workforce was undertrained in comparison to its industry counterparts. The Commission noted there were acquisition training programs at five major facilities and civilian contract specialists were required to complete 600 hours of mandatory training. The Commission concluded in *A Quest for Excellence: Final Report to the President* (June 1986) that the existing DOD acquisition training effort required improvements, noting that:

> Insufficient management attention and financial resources are serious impediments to adequate training of contract specialists and, for that matter, all acquisition personnel. Such training . . . should be centrally managed and funded. This is necessary to improve the utilization of teaching faculty, to enforce compliance with mandatory training requirements, and to coordinate overall acquisition training policies.

This section describes the statutory and Department of Defense mandatory training for Program Managers and contracting personnel, the existing training infrastructure to support this effort, the status of this training, and actions taken by the Department of Defense and the services to train their contracting and Program Management personnel. In addition, the section reviews how each service and the Defense Logistics Agency manages its mandatory training effort and what type of executive level training is provided or available within a career program context.

BACKGROUND: MANDATORY DOD TRAINING REQUIREMENTS

Historically, the Department of Defense has consistently espoused the policy that necessary training shall be provided to its personnel. The need for training civilians was established during the 1950s. During the 1960s, under the leadership of Secretary of Defense Robert S. McNamara, the policies and procedures for training civilian personnel were institutionalized. DOD Instruction 1430.10, "DOD-Wide Civilian Career Programs" (June 2, 1966), made training an integral part of civilian career development. This Directive also recognized that "training and development is a joint

responsibility of management and the employee." Accordingly, the Defense Management Education and Training Program (DMET) was established by DOD Directive 5010.16, "Defense Management Education and Training Program" (September 12, 1966), and other Department of Defense Directives were promulgated to establish responsibilities and procedures for its implementation. In this regard, DOD Directive 1430.2, "Assignment of Responsibilities for Civilian Career Programs" (May 9, 1966) made a "coordinated training and development program" a basic career program element. Today these basic policy directives remain in full force and effect.

Contracting Training

The need for a trained contracting workforce has long been recognized within the Department of Defense. In 1952, the Secretary of Defense required each Military Department to establish a "definitive program . . . for the recruitment and training of competent military and civilian personnel" in the area of procurement or contracting (DOD Directive 4000.8, "Establishment of Basic Military Supply System Regulations," September 5, 1952).

Mandatory Department of Defense contracting training was established with the issuance of DOD Directive 1430.6, "Armed Services Procurement Training Program," on July 5, 1961. This Directive established requirements for the training of both military and civilian contracting personnel and identified 13 different contracting courses that would be provided. DOD Instruction 1430.7, "Armed Services Procurement Training Register," August 22, 1961, listed all joint general and specialized contracting courses as well as service-unique contracting courses.

The original Directive was superseded by DOD Directive 1430.6, "Defense Procurement Training Program," March 10, 1962, which established the DOD policy "to provide personnel engaged in procurement, and others whose work requires a knowledge of procurement, with the training necessary. . . . Satisfactory completion of Defense Procurement Training courses . . . are vital factors in the selection of individuals for career advancement in the procurement field". This Directive also established a high-level Defense Procurement Training Board. A newly issued DOD Instruction 1430.7, "Defense Procurement Training Register," October 28, 1963 expanded the number and types of courses to include courses in contracting-related functions, such as quality assurance.

The Department of Defense established an extensive, uniform mandatory training program for contracting civilians (GS-1102) as well as other related "acquisition" civilians—GS-1101, -1103, and -1150 occupational series—with the promulgation of DOD 1430.10-M-1, "DOD-Wide Civilian Career Program for Procurement Personnel," dated August 4, 1966, replacing the previous DOD policy on contracting training. This Manual went through two revisions (January 28, 1974 and December 7, 1982) and served as the basic DOD policy document for mandatory civilian contracting training until its cancellation by DOD Directive 5000.52, "Defense Acquisition Education and Training Program" on August 22, 1988.

Mandatory contracting training courses were designed to provide basic skills and knowledge for employees to perform in their current positions and to advance in the career field. Courses were divided into three levels: Entry (GS-5 through GS-8 and officer 01/03), Intermediate (GS-9 through GS-12 and officer 03/04), and Senior (GS/GM-13 and officer 04 and above). The December 1982 edition of DOD 1430.10-M-1 established the DOD policy that:

> Contracting activities shall send employees to mandatory courses as soon as they are eligible. Adherence to mandatory training requirements shall be a matter of concern for DOD audits, inspector general visits, and procurement management and contract management reviews.

In December 1986 the same training requirements were made applicable to military personnel with the publication of DOD Directive 5000.48, "Experience, Education, and Training Requirements for Personnel Assigned to Acquisition: Contracting, Quality Assurance, and Business and Financial Management." Prior to this Directive, there had been no DOD mandatory training for military contracting personnel since the early 1960s. Instead, each service was allowed to train its military personnel within service guidelines.

Program Manager Training

The requirement for mandatory training of Program Managers is relatively more recent than the requirement for contracting personnel. Secretary of Defense McNamara had sought to improve Program Manager qualifications by increased training in the early 1960s. When David Packard was Deputy Secretary of Defense in the early 1970s, he established the Defense Systems Management School (now the Defense Systems Management College) for the purpose of training Program Managers. The Department addressed the training requirements for Program Managers through the promulgation by Deputy Secretary of Defense Clements of DOD Directive 5000.23, "System Acquisition Management Careers," on November 26, 1974. This Directive required that all major system Program Manager candidates receive professional education at the Defense Systems Management School's Program Management Course (PMC) or Executive Refresher Course (ERC), either before or shortly following assignment to a major program office. Each service or Military Department was free to follow the same selection procedures that it used for other intermediate service schools such as the Army Command and General Staff College. With the enactment of P.L. 99-145, on November 8, 1985, Program Managers of major programs were required to complete the Program Management Course at the Defense Systems Management College, effective on July 1, 1987.

Impetus for Training Reform

Notwithstanding the well-established DOD policies on training of contracting and Program Management personnel, effective implementation of these policies has been problematic. As discussed in Chapter VI, the services have been unsuccessful in achieving required training of their Program Managers. The services have also failed to adequately train their contracting personnel.

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Deficiencies in DOD contracting training were highlighted in a 1984 DOD Inspector General report—Report on the Audit of Department of Defense Procurement Training (No. 84-047, February 14, 1984). This report resulted from the IG's evaluation of 24 DOD activities to determine if intermediate and senior level civilian contracting personnel were receiving mandatory training. In reviewing 1,551 individual training records of four occupational series, the IG found that 67 percent of the courses had not been completed by required DOD personnel.

The 24 activities audited were all central or systems contracting functions where greater attention would normally be given to mandatory training than at the base or installation level because of more resources and higher visibility. Exhibit VII-14 indicates the training deficiencies identified by the DOD IG by service and Agency in its 1984 report.

EXHIBIT VII-14—FINDINGS OF 1984 DOD IG REPORT ON TRAINING OF CONTRACTING PERSONNEL

Service/agency	Percent deficient
Army	62
Navy	76
Air Force	60
Defense Logistics Agency	71
Total	67

The GS-1102 series was 67 percent deficient overall. None of the 24 activities audited fully complied with the GS-1102 mandatory training requirements.

The DOD IG found a number of impediments to compliance. A critical limiting factor was an insufficient number of class offerings. This shortfall was highlighted in the case of class offerings provided by the Air Force Institute of Technology (AFIT). For the nine mandatory courses available through AFIT, only 31 percent of DOD training requests could be satisfied during FY 1981, only 17 per cent of the requests in 1982, and 23 percent of the requests in 1983.

Each service had its own system for identifying contracting civilians to attend the classes, and each school had its own distinct administrative procedures. Most were hindered in identifying individual and gross requirements by reliance on manual systems. Only in the Air Force was an automated, service-wide system used; but even here two distinct but interrelated data systems were used. The general reliance on fragmented and often untimely manual information systems between the functional contracting organizations and their civilian personnel offices hindered effective management of the training function. The DOD IG noted three additional contributory factors. First, there was a high turnover of contracting personnel, resulting in constant hiring of new personnel, with concomitant training requirements. Second, the language of DOD 1430.10-M-1 was silent on specific time frames for completion of training requirements. Third, training institutions did not offer sufficient alternative training modes such as correspondence courses, seminars, and equivalency examinations. The 1984 Inspector General Report served as an impetus for actions by the Department of Defense to redress the chronic difficulties encountered in training contracting civilians.

However, each service and Agency and the Office of Secretary of Defense responded differently. In general, the report was viewed as a call to action—an opportunity and a challenge. The service schools, civilian personnel functions, and functional management each responded within the constraints of their existing service system and traditions. Responses ranged from ad hoc approaches to more emphasis within the traditional bureaucracy.

Acquisition Enhancement (ACE) Program

The reaction of the Office of the Secretary of Defense to this report, conjoined with an initiative of the Defense Council on Integrity and Management Improvement (DCIMI), led to significant senior level involvement. On August 22, 1985, Deputy Secretary of Defense Taft issued a Memorandum to the services and Defense Agencies concerning proper funding for procurement training. This Memorandum stated:

> The quality of procurement training and its availability has a direct impact on the quality of our procurement workforce. I am concerned that such training has been a low budget priority in some organizations. You are to take appropriate action to ensure that procurement training in accordance with DOD 1430.10-M-1 . . . is being properly funded and executed for your entire procurement workforce. . . . Your procurement training plans should support mandatory training for 85 percent of your mandatory requirements each year. The execution of these training plans are to be a matter of review by your internal audit personnel.

The 85 percent goal established in August 1985 remains the DOD objective.

Simultaneous to the establishment of the Acquisition Enhancement (ACE) Program, the Deputy Secretary of Defense, on August 19, 1985, directed a comprehensive review of actions needed to promote a more professional contracting, quality assurance, and Program Management workforce. A three-month joint review was conducted under the auspices of the Defense Systems Management College and included full-time representatives from the services and the Defense Logistics Agency. This effort culminated in the Acquisition Enhancement (ACE) Program Report, Volume I (December 1985), which developed experience prerequisites and increased education and training requirements for 15 job functions, including contracting and Program Management.

The Ace Study Group also drafted new DOD directives and instructions to promulgate the increased training requirement. The resulting progeny were DOD Directives 5000.48 and 5000.23, the lineal ancestors of DODD 5000.52. Lastly, it recommended the establishment of a DOD University of Acquisition Management (DUAM) and a follow-on study of the DOD's acquisition training base.

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The Defense Systems Management College was tasked in May 1986 to conduct a follow-on comprehensive ACE II study. The scope of this study was to include approximately 56,000 civilian and military "acquisition" personnel in 15 job functions. The ACE II study report, which was issued in December 1986, noted that the magnitude of the training deficit can be measured in light of a projected civilian backlog of about 668,000 student man-days. This backlog would increase to two million student man-days when the training requirements recommended by the ACE I report became effective in 1987. The ACE II Program Report concluded:

> . . . this very significant training requirement demands a coordinated effort that crosses individual service and Agency lines. . . Our review concludes that the coordination and direction required to cope with this problem, as well as the longer term efforts to obtain and maintain the required levels of professionalism, cannot be provided by the current segmented education and training management structure.

The ACE II study report repeated the recommended establishment of a DOD University of Acquisition Management (DUAM), with portions of the current DOD learning centers, e.g., AFIT and ALMC, becoming its consortium members with no operational control. Conceptually, the ACE II study team envisioned a two-phase development of the DUAM. Phase I would entail the development of selected DOD colleges, schools, and training centers nationwide into a consortium of associate members as depicted in Exhibit VII-15. Phase II, whose proposed structure is presented at Exhibit VII-16, would culminate in a consolidated university with two principal colleges—the Defense Contracting and Quality Assurance College and the Defense Systems Management College—and the Institute of Acquisition Research.

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EXHIBIT VII-15

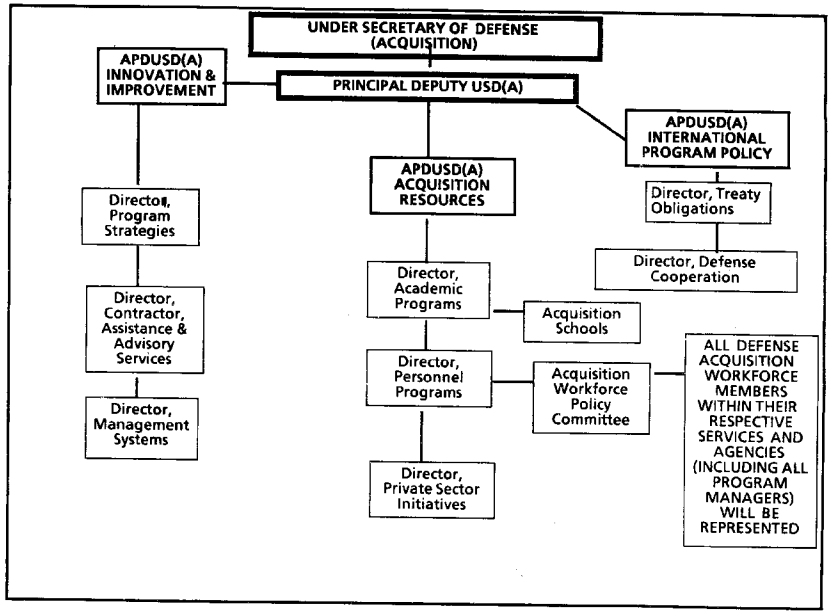
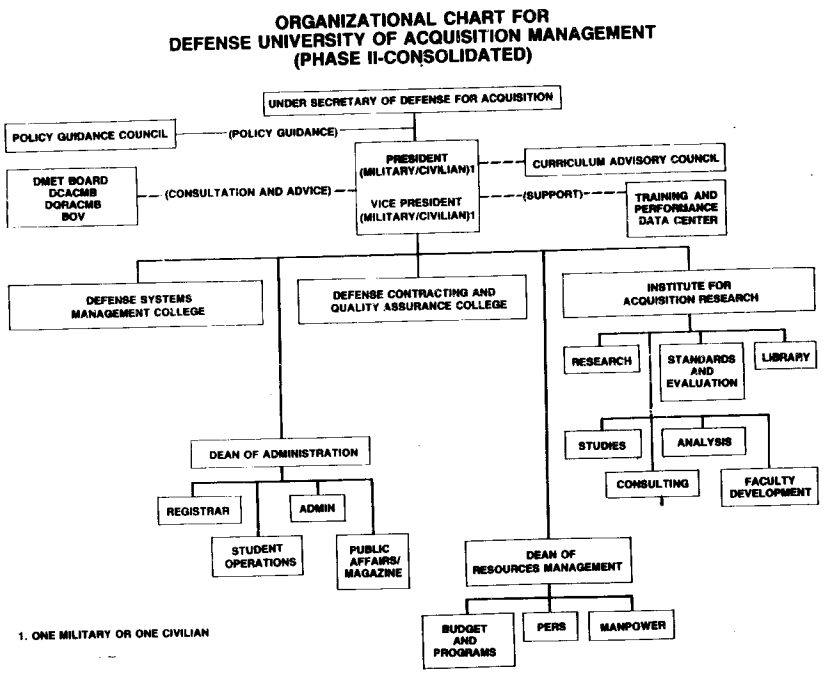


EXHIBIT VII-16



This proposal was resisted by the services and was ultimately rejected by the Under Secretary of Defense (Acquisition) in September 1987.

Lastly, the ACE II study decried the absence of data systems to support the training effort. The ACE Study Group had found that obtaining the necessary data in response to the Deputy Secretary of Defense's tasking in August 1985 proved a "formidable task." Accurate training data was not readily available within the Office of the Secretary of Defense and the services and Defense Agencies. Only the Air Force Contracting and Manufacturing Civilian Career Program (CMCCP) had been able to extract information from an automated data system—which was still less than optimum. The Army and Navy had to rely on cumbersome manual screening. The ACE Study recommended that each service and agency "establish a comprehensive management information system to track the education, experience, and training status of its acquisition personnel."

Training Organizations

The organizational structure for acquisition training within the Department of Defense could be characterized as pluralistic decentralization. Each service has a portion of the training organization infrastructure and responsibility. In most cases, the training mis-

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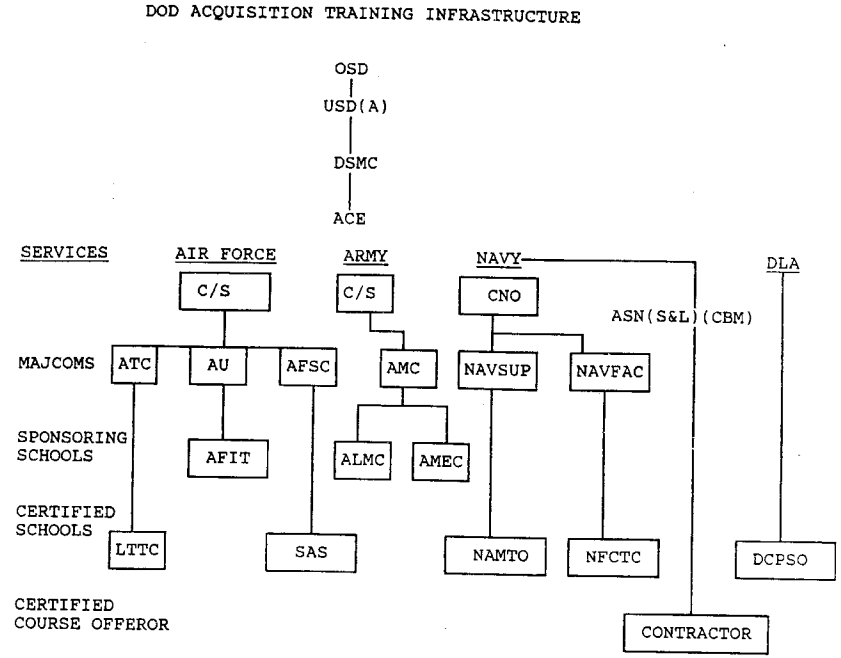
sion and activity encompasses more than acquisition training. The training infrastructure is shown at Exhibit VII-17.

EXHIBIT VII-17



Office of Secretary of Defense

The training function is arranged hierarchically under the Deputy Secretary of Defense and the Defense Council on Integrity and Management Improvement. At the Office of the Secretary of Defense level, there are limited resources to plan and monitor the training effort. The training and education effort within OSD is supported by the Assistant Secretaries of Defense (Comptroller) and (Force Management and Personnel). Under the latter are two important support activities: the Training Performance Data Center which develops data on course requirements and the Defense Manpower Data Center which is responsible for reporting course completions and historical data. The Under Secretary of Defense (Acquisition) is responsible for the development of training and career development policy for acquisition personnel, and relies on a functional ad hoc board structure and the Defense Systems Management College to support this responsibility.

Defense Systems Management College

On July 1, 1971, Deputy Secretary of Defense David Packard established the Defense Systems Management School, now the De-

fense Systems Management College (DSMC), as a joint military service/OSD professional military institution. DSMC was to serve as the capstone for the professional education of DOD personnel in Program Management and defense system acquisition management.

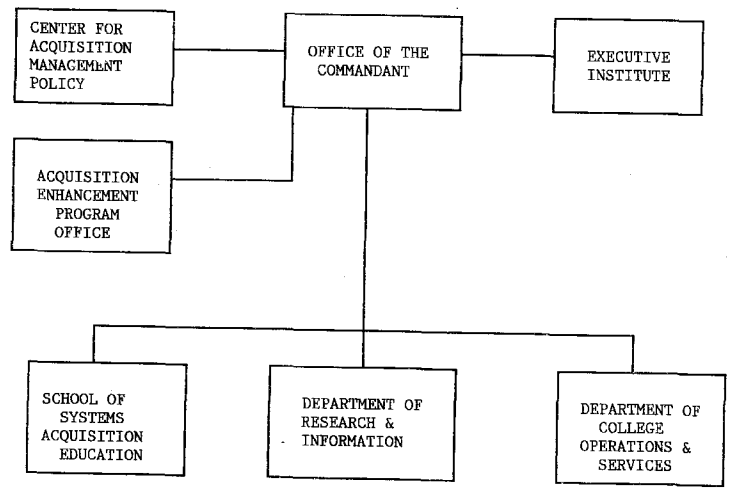
DSMC had its antecedents in the initiatives of Secretary of Defense McNamara to improve the quality of Program Management in the Department. In September 1963 Deputy Secretary of Defense Roswell L. Gilpatrick directed the establishment of a system/project management educational and training institution. Accordingly, the Defense Weapon Systems Management Center (DWSMC) was established in 1964 at Wright-Patterson Air Force Base, Ohio, with the Air Force acting as executive agent. This joint DOD school offered a 10 week Project Management Course. In June 1969, Deputy Secretary of Defense Packard directed a DOD Review Group conduct a comprehensive review of the curricula, faculty and administration of DWSMC. The recommendations of this Review Group led to Mr. Packard's decision to disestablish DWSMC, effective June 30, 1971, and replace it with the Defense Systems Management School at Fort Belvoir, Virginia.

DOD Directive 5160.55 (August 22, 1988) expanded the DSMC mission by tasking the college to be the DOD executive agent for the DOD education and training program for the acquisition workforce, as enunciated in DOD Directive 5000.52. As the USD(A)'s executive agent, DSMC is to provide full-time oversight for DOD-mandated acquisition training and education in coordination with the appropriate DOD functional boards. DSMC also is charged with: certification and identification of non-DOD education and training; elimination of duplication in course curricula; promotion of higher quality training; development of standards for demonstrating competencies in lieu of course attendance; and general oversight of course quality.

The Commandant, Defense Systems Management College reports to the Under Secretary of Defense (Acquisition). The organization of DSMC is shown at Exhibit VII-18. The Commandant is supported by the ACE Program Office, responsible for managing the DOD-wide effort for training the acquisition workforce and a series of boards and councils.

EXHIBIT VII-18

DEFENSE SYSTEMS MANAGEMENT COLLEGE
FORT BELVOIR, VIRGINIA
1 AUGUST 1989



ACE Program Office. A significant outcome of Deputy Secretary of Defense Taft's initiatives and the ACE program efforts was the informal establishment in May 1987 of a central coordinating ACE office within DSMC. This office was formally established on February 4, 1988 and mandated by DOD Directive 5160.55, August 22, 1988, which made the Defense Systems Management College the DOD executive agent to provide oversight for the DOD education and training program for the acquisition workforce. As such, the college was given 11 discrete responsibilities within four general categories:

(1) Oversight and review of training and education, including course quality;

(2) Curricula and course content and course offering modes and sources in terms of quality, effectiveness and efficiency;

(3) Management of the annual quota allocation process; and,

(4) Budgeting for necessary resources to support all mandatory acquisition education and training.

This office is headed by an Army Colonel who is authorized four subordinates: an O-5 each from the Air Force and Navy, a GS-14 Administrator, and a GS-7 Secretary. This office is supported by a GS-12 Budget Officer in the Department of College Operations.

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Policy Guidance Council and Boards

DODD 5160.55 also established two boards to support DSMC: the DSMC Policy Guidance Council (PGC) and a DSMC Board of Visitors (BOV). The PGC is established to provide policy and guidance for DSMC and to recommend nominees for Commandant to the USD(A). It is composed of 17 members, chaired by the USD(A) and including the Vice Chairman, Joint Chiefs of Staff, top level OSD officials, the Service Acquisition Executives and the Joint Logistics Commanders (JLC). The BOV is to advise the USD(A) through the DSMC Commandant and the PGC on organization management, curricula, methods of instruction, and facilities. Members are to be appointed from academia, business, and the defense industry and shall serve a two year term.

The USD(A) has also established two ad hoc boards to support DSMC: the Interservice Acquisition Enhancement (ACE) Program Action Group and the Curriculum Advisory Council (CAC). Their duties and functions are integral to the management of mandatory DOD training.

Each service and Agency has appointed a service ACE Program Director to the Interservice Acquisition Enhancement (ACE) Program Action Group, established by the USD(A) to provide the Executive Agent with direct access to each service and Defense Agency. Its purpose is to facilitate coordination and identify and resolve problems and issues, or failing resolution, surface them to the Commandant of the College and/or USD(A). It will consider questions about experience, education and training requirements plus course pedagogy, including the establishment of new mandatory courses.

The ACE Program Office is assisted by the Curriculum Advisory Council (CAC), whose mission is to advise in the curricula and supportive instructional methods/materials for the DOD mandatory and equivalent acquisition courses. Its responsibilities include review of mandatory courses and coordination of their development or revision, recommendation of courses for certification, development of DOD-wide equivalency tests, and provision of no-show data. Chaired by the Commandant, Defense Systems Management College or his/her designated representative, CAC members are "senior representatives" from the USD(A), the College, and the ten component school-houses.

The Commandant of DSMC also obtains functional advice (not direction) from four inter-service functional boards: the Defense Contracting Career Management Board; the Quality Assurance Council; the Industrial Property Management Board; and, the Manufacturing and Production Board. It is anticipated that additional functional boards will be established to assist the Executive Agent in his duties.

DOD School System

DOD Directive 5160.55 requires the Military Departments and Defense Agencies to support the Executive Agent, Commandant DSMC, through their cognizant schools. Significant and challenging tasks for the services include the requirement to determine annual requirements plus 5-year projections for training in each mandatory acquisition course. They are to maintain cost data for students

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and faculty and attendance, graduation, and no-show data for each course. Sponsoring schools and certified offerors are to submit annual reports.

The existing DOD school infrastructure consists of a core of sponsoring schools, orbited in concentric circles by a series of certified schools and certified course offerors. Thus sponsoring schools are supported in their endeavors by certified schools and certified course offerors who are approved to present mandatory courses. In addition, there are distinctive service schools that provide service-unique courses. The classification of school type and identification of specific sources is discussed below. A more extensive discussion of the various schools is provided later, within the context of what the schools are accomplishing to train personnel.

Sponsoring Schools. A sponsoring school is a training source with overall responsibility for a specific course of instruction and is required to ensure that the curricula reflects a competency-based training approach in which fundamental skills or knowledge required to satisfactorily perform job functions are taught. The sponsoring school is also responsible for the development and maintenance of course materials, conduct of classes, course reviews, and an assessment of core competencies.

There are four sponsoring schools authorized to teach mandatory contracting courses and the Program Management Course. These schools, the mandatory courses and the personnel required to take these courses are shown in Exhibit VII–19.

EXHIBIT VII–19—DOD MANDATORY CONTRACTING AND PROGRAM MANAGEMENT CURRICULA

[Contracting and Program Management]

School	Course	Mandatory for
Defense Systems Management College	(1) Program Management College Course	Program Managers.
	(2) Systems Acquisition for Contracting Personnel	Contracting Personnel.
Air Force Institute of Technology (AFIT).	(1) Contract Administration (Executive)	Contracting Personnel.
	(2) Government Contract Law	
	(3) Contract Administration (Advanced)	
	(4) Principles of Contract Pricing	
	(5) Quantitative Techniques for Cost/Price Analysts.	
	(6) Advanced Contract Pricing	
Army Logistics Management Center (ALMC).	(1) Management of Defense Acquisition Contracts (Basic).	Contracting Personnel.
	(2) Management of Defense Acquisition Contracts (Advanced).	
	(3) Management of Defense Acquisition Contracts (Executive).	
	(4) Defense Contracting for Information Resources.	
U.S. Navy	Defense Acquisition and Contracting Executive Seminar.	Contracting Personnel.

Certified Schools. A certified school is an alternative training organization within the Department of Defense, certified by the Defense Systems Management College, to teach mandatory courses. They may, within certain bounds, revise the curricula and develop their own course materials. There are four certified schools: the

Navy Acquisition Management Training Office (NAMTO), the Naval Facilities Contract Training Center (NFCTC), the Air Force Lowry Technical Training Center (LTTC), and the DLA Civilian Service Support Office (DCPSO). The Navy established NAMTO and NFCTC as indigenous training sources to train personnel who were backlogged in the Army-sponsored courses at ALMC.

Certified Course Offerors. Certified course offerors are external training sources that have been certified by the Defense Systems Management College to teach mandatory courses when the cognizant sponsoring source is unable to meet the demand. There are two certified course offerors: a contractor responsible for courses under Navy cognizance and a contractor to supplement the courses taught by ALMC. The Air Force has placed greatest reliance on contractors to reduce its training backlog. The Air Force has long operated the Lowry Technical Training Center (LTTC) which teaches mainly base-level contracting courses as an equivalent source. The LTTC courses are shown in Exhibit VII-20.

EXHIBIT VII-20—APPROVED EQUIVALENT DOD CONTRACTING EDUCATION AND TRAINING COURSES

[Lowry Technical Training Center]

Mandatory courses	Equivalent courses
Government Contract Law	Base Contract Law.
Principles of Contract Pricing	Base Level Pricing.
Defense Small Purchase (Basic)	Contracting Specialist.
Management of Defense Acquisition Contracts (Basic)	Central/Systems Level.
	Contracting or Base Level Contracting.

Service and Agency Training Management

Each service and the Defense Logistics Agency (DLA) endeavor to manage the training of their personnel, that is, match specific individuals against class and school quotas. All the services rely, in the main, on their existing military personnel systems and local functional managers to train officers in the mandatory courses. They rely on a more formal, centralized approach in selecting officers for Professional Military Education (PME), such as Intermediate and Senior Service Schools. Likewise, the process of selecting officers to attend the Program Management Course tends to be centralized. Thus, there is basic commonality in how the services manage the training of military personnel.

On the other hand, there are dissimilarities in how the services and DLA manage the training of their civilian personnel. The traditional approach to managing technical training is to decentralize this process in the local civilian personnel office and to functional management. However, each service has also come to regard training, to greater or lesser degrees, as a function of career program management. Therefore, a brief review of training and its relationship to the civilian career program structures in each service and DLA is discussed below.

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Army

The Army manages technical training in a decentralized mode with the local Civilian Personnel Office and functional manager scheduling individual training. Headquarters, Army Materiel Command is the Army Executive Agent for managing contracting courses outside the Materiel Command school system, e.g., Army Logistics Management College. This effort consists of determining training needs, requesting school quotas, and then allocating quotas to the activity, unit, or installation. An annual training survey is conducted manually. Inputs are made by various media to the AMC Logistics Systems Support Activity which converts requirements into a standard hard-copy document. Army Materiel Command distributes these to cognizant schools, such as the Air Force Institute of Technology. The DOD schools provide AMC their quotas, which are then suballocated throughout the Army. The last survey was run in fiscal year 1987.

Characterized by decentralization, this system is operated by the personnel organization with little feedback to functional management. A new PERSCOM system is being developed that will maintain this training database known as the Total Army Centralized Individual Training Solicitations (TACITS). This system will be available in fiscal year 1991, at the earliest.

Executive Career Development and Training. The Army has a number of management and executive development courses for civilian employees. Contrary to the management of the mandatory contracting training, the Army approach here is towards more centralization. Long-Term Full-Time Training (LTFT) is professional training lasting, normally, at least 6 months. Individuals usually attend in a Temporary Duty status. In academic year 1988-1989, the Army planned to have 34 Army-wide quotas for civilians of all career fields as indicated in Exhibit VII-21.

EXHIBIT VII-21—LONG-TERM FULL-TIME TRAINING

School	Quotas
Army War College	6
Army War College Correspondence	2
National War College	1
Industrial College of the Armed Forces	6
Armed Forces Staff College	8
Legis Fellows	6
Army R&D Fellowships	5

There is an Army-wide announcement distributed through personnel and functional channels. Nominations are open to all GS-13s and above, but the emphasis is on GS-14 or higher. Nominations are submitted through command channels and must have Major Command (MACOM) functional chief endorsement. Nomination packages go to PERSCOM where panels of personnelists convene to rate and rank candidates. They look at nominees' performance, knowledge, skills and abilities, and the MACOM post-utilization plan. Selections are made by the Army Executive and Profes-

sional Development Committee, chaired by the Deputy Assistant Secretary for Program Planning.

Unlike the military program, the Army has a very limited Training With Industry (TWI) program for civilians. In academic year 1988–1989, there were only two civilian quotas, and none for contracting personnel. The Army also has a Professional Functional Long-Term Training program. Quotas are provided to various Functional Chief's Representatives (FCR) based on need and criticality by the Executive and Professional Development Committee. This usually consists of university education and is generally one year in length. The individual picks the college or university, and it is approved by the FCR. Currently Contracting and Acquisition does not have quotas in this program.

In terms of career development, the Army encourages two types of career broadening experiences: assignments where an individual stays in his or her career field but works temporarily at a different organizational level (again, Contracting and Acquisition did not have any participants in 1988); and assignments in different career fields, through such programs as the Logistics and Acquisition Management Program (LOGAMP). The Army is also participating in the Department of Defense Procurement Intern Management Enhancement (PRIME) Program and currently has two interns assigned.

Navy

The Navy strives to develop its civilian personnel through managerial and technical training. Technical contracting training consists of mandatory and non-mandatory training pursuant to DOD policy. Mandatory DOD contracting training is managed through each command (SYSCOM) and subordinate field activities with the local supervisor and civilian personnel office working together to schedule and manage training within each activity.

Executive Career Development and Training. The Navy generally takes a decentralized approach to funding and managing civilian training and development programs. Thus, there are a limited number of Long-Term, Full-Time training and executive development programs that are centrally funded and administered by the Office of Civilian Personnel Management. In academic year 1988–1989, the Navy had 72 quotas for civilians from all career fields as indicated in Exhibit VII–22.

EXHIBIT VII–22—NAVY LONG-TERM FULL-TIME TRAINING

School	Navy quotas	GS–1102 participation
National War College	1	
Industrial College of the Armed Forces	5	
Armed Forces Staff College	2	
President's Executive Exchange Program	2	
Congressional Fellowship Program	3	
LEGIS Fellows	11	3
Executive Potential Program	2	
Women's Executive Leadership Program	46	6

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As indicated, the contracting career field has had limited representation in these programs.

The Navy also provides central pool funds, when available, to the SYSCOMS and other organizations to support their long-term training programs. Since 1988, two GS–1102 personnel per year have received central funding for this type of training, such as graduate training in procurement management at universities.

The Office of Civilian Personnel Management also manages the Navy participation in the Office of Personnel Management Executive Seminar Center program, consisting of short-term managerial and executive training. In addition, each SYSCOM has an established training program, the purpose of which is to acculturate all civilians to that SYSCOM and "the military service". The Navy does not have a Training With Industry or Education With Industry program like the Army and Air Force.

Air Force

The Air Force accords mandatory contracting training a high priority with concomitant high-level visibility. The Air Force adopted centralized management and funding of this training through the CMCCP PALACE Team. Non-mandatory technical (contracting) training is managed in the traditional, decentralized mode except for contracting interns. Supervisors and Civilian Personnel Offices schedule employees for this training, utilizing standard automated procedures in two interrelated standard Air Force data systems: the Personnel Data System—Civilian (PDS–C) and the Pipeline Management System (PMS). The PALACE Team has taken a role in supporting the non-mandatory training of interns. This has been limited in scope because of austere funding.

Executive Career Development and Training. This training consists of short-term management and executive development courses plus Long-Term, Full-Time training. The primary source of CMCCP managerial training has been competitive selection for attendance at Office of Personnel Management Executive Seminar Center courses. The Air Force Civilian Personnel Management Center (AFCPMC) centrally manages and funds for these courses. Each career program receives its "fair share" of quotas. Nominations are done "in system" (using PDS–C) and individuals are ranked for selection based on a rating and ranking plan approved by the Professional Development Panel.

Also known as Mid-Level Management Development, Long-Term Full-Time Training (LTFT) is centrally coordinated by the PALACE Team. The CMCCP Professional Development Panel rates and ranks its nominees. Final selection for all participating career programs is made by the Air Force Mid-Level Management Development Panel chaired by the Director of Civilian Personnel. The Associate Director of Contracting and Manufacturing Policy is a member of this panel. The Air Force has 32 quotas for 1988–1989 as indicated in Exhibit VII–23.

EXHIBIT VII–23—AIR FORCE LONG-TERM, FULL-TIME TRAINING

School	Quotas
National War College	1
Air War College	6
Industrial College of the Armed Forces	5
Armed Forces Staff College	1
Air Command and Staff College	16
Legis Fellows	2
Harvard University	1
Princeton University	1
University of Southern California	1
Sloan Stanford	1
Sloan MIT	1
Congressional Fellowship	1

Education With Industry (EWI). Air Force civilian participation in the EWI program began in 1981 and is managed by the Air Force Institute of Technology (AFIT) and the respective PALACE Teams at the AFCPMC. The CMCCP has the largest number of participants with six quotas. The approach for civilians differs from the military. Civilian nominations are sought Air Force-wide and competitive selections are made by the Professional Development Panel. All civilians have prior experience in contracting and should be among the best and brightest. They will return to a Contracting/Acquisition position upon completion of EWI. An effort is made to place individuals into follow-on assignments that will allow them to benefit from their EWI experience. An evaluation mechanism to determine the utility of EWI has been established, and the results of this evaluation are provided to the Policy Council.

The Air Force also has an active civilian career broadening program, centrally managed by the PALACE Team. The purpose of career broadening is to acquire new knowledge, skills and abilities not available through normal career progression. Individuals are competitively selected, and the normal tour of duty is 2 or 3 years. Assignments may be to another occupational series or to a different function or organization within the same series. Salaries and other costs are paid by the Civilian Personnel Management Center. CMCCP has 8 career broadening positions. Six are on the PALACE Team. The other two are in the Air Force Directorate of Contracting and Manufacturing Policy.

Below the Air Force headquarters level, there are also "exchange" programs within contracting. For example, Air Force Logistics Command has an exchange program with the Air Force Contract Management Division of Systems Command which allows for limited numbers of contracting civilians to trade jobs between Air Logistics Centers (ALCs) and Air Force Plant Representative Offices (AFPROs).

Defense Logistics Agency

Training is managed and funded locally, that is, decentralized. Whenever possible, mandatory training is provided by in-house instructors at the DLA Civilian Personnel Service Support Office (DCPSO), which is certified by the DOD Acquisition, Education and Training Executive Agent—DSMC. At the intermediate and senior

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level, individuals are also selected locally for technical and supervisory training which is funded locally by Primary Level Field Activities. This constitutes the bulk of the training provided to intermediate and senior-level individuals.

Executive Career Development and Training. On a selective basis, there are a number of contracting civilians who participate in a new Acquisition Mid-Level Management Development Program managed by the DLA Civilian Personnel Service Support Office (DCPSO). This is a 2 year program with an initial target audience of GS–9 or GS–11 and a target grade of GS–12. This new program has three basic elements: core training, professional education and training, and enrichment assignments. The core training consists of 248 hours of training in management concepts/practices and DLA acquisition policy and is taught at DCPSO. The professional education and training portion consists of the mandatory DOD contracting courses plus supplementary education through colleges, professional associations and other media. The enrichment assignment phase consists of job rotation into other DLA organizations to provide a broader understanding of DLA logistical functions.

There is also a select group under an executive development program which is centrally funded and managed. Participation may include graduate work at selected universities; participation in the senior service schools (i.e., Industrial College of the Armed Forces, Naval War College, etc.); rotational assignments between DLA field activities, DLA Headquarters, and the Office of the Secretary of Defense; and, attendance at Harvard, Brookings Institution, the Federal Executive Institute, and other institutions of higher learning or advanced study.

TRAINING STATUS

Contracting Training

This section provides an analysis of mandatory contracting and Program Manager training in the services and the Defense Logistics Agency.

Army

Mandatory course completions in the Army are not available because of data system deficiencies. In fact, the Army cannot even identify its training requirements for FY 89. However, in an August 1986 manual survey on the status of training for civilian and military workforce conducted for the ACE Program Office, the Army reported that 65 percent of its contracting civilians and 25 percent of its military contracting personnel had completed mandatory contracting courses. The breakdown of the training situation, from *ACE Program Report II,* (Volume I, December 1986), is shown in Exhibit VII–24.

EXHIBIT VII-24—NUMBER REQUIREMENTS/BACKLOG

[Percent not trained]

Course	Civilian				Military			
	Assigned	Backlog	Percent	Annual req.	Assigned	Backlog	Percent	Annual req.
Contract adm. (advanced)	2230	753	34	199	96	20	21	36
Contract adm. (basic)	1869	1064	60	108	195	191	98	31
Def. acq. and con. exec. sem.	959	566	59	44	181	181	100	39
Cont. neg. workshop	1145	678	59	57	195	180	92	31
Small purchase	2520	321	13	154	195	195	100	31
Cost/price analysis	591	275	47	30	98	83	85	16
Contract law	4562	1345	29	415	191	139	73	72
MDAC (advanced)	2230	753	34	199	96	20	21	36
MDAC (basic)	1869	447	24	108	195	64	33	31
Mngt. of managers	141	25	18	8	23	20	87	5
Contract pricing	591	275	47	30	98	83	85	16
Total	18707	6502	35	1352	1563	1176	75	344

The Army recognizes it has a problem in knowing its real training requirements. The disparity in the Army training requirements identified to the ACE Program Office for FY 86 and FY 90 would seem to confirm this lack of precision. As seen in Exhibit VII-25, in FY 86 the Army identified a requirement for 6,259 classroom seats, whereas in FY 90 it identified 5,224 training requirements and the accuracy of this number is questionable. If one compares the stated requirements in August 1986 with the same requirements offered in FY 90 (excluding the courses for which data was unavailable or which had been established since August 1986), the reduction of 1,035 requirements from 6,259 (1986) to 5,224 (1990) is a decrease in requirements of 17 percent. As a caveat, the requirements for FY 90 are probably no more accurate then those for FY 86.

EXHIBIT VII-25—ARMY TRAINING REQUIREMENTS

Course	FY 90 NO	AUG 86 NO	Percent change
Management of defense acquisition contracts (MDAC) basic	805	650	+24
Principles of contract pricing	750	404	+87
Management of defense acquisition contracts (MDAC) advanced	935	1008	−7
Government contract law	1399	1,971	−29
Advanced contract administration	403	1,008	−60
Quantitative techniques for cost and price analysis	112	388	−71
Defense contracting for information resources	98	(1)	(1)
Major systems acquisition for contracting personnel	55	(1)	(1)
Management of defense acquisition contracts (MDAC) executive	301	(1)	
Contract administration (executive)	75	(1)	
Advanced contract pricing	22	(1)	
Defense acquisition and contracting executive seminar	301	830	−64
Total	5,224	6,259	−17

[1] No data.

(ACE Blue Book: Defense Acquisition Education and Training Program FY 90 Budget, August 19, 1988).

The Army has cognizance over four mandatory contracting courses, with the Army Logistics Management College (ALMC) as the sponsoring school. These courses and the number of personnel to be trained for FY 90 are depicted in Exhibit VII-26.

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EXHIBIT VII-26—ARMY LOGISTICS MANAGEMENT COLLEGE COURSES

Course	No. trained
Management of defense acquisition contracts (basic)	2,410
Management of defense acquisition contracts (advanced)	2,646
Management of defense acquisition contracts (executive)	801
Defense contracting for information resources	223
Total	6,080

ALMC uses a variety of instructional modes: resident (at ALMC), on-site (the instructor goes to the student location), correspondence (for the MDAC Basic course) and satellite classroom. ALMC has also supplemented its faculty course offerings with a contractor to teach mandatory contracting courses. ALMC is restrained in its facilities and has undertaken a classroom expansion project. The development of a television satellite classroom network has been an effective method of training large numbers of personnel. However, there are concerns about the quality of the instruction in such an environment. A review of personnel attending classes conducted in fiscal year 1988 and 1989 is shown in Exhibit VII-27.

EXHIBIT VII-27—PERSONNEL ATTENDING ALMC COURSES

	FY1988	FY1989	Total
MDAC (advanced):			
Resident	640	640	1280
On-site	1,645	1,675	3,320
Contractor	2,680	1,850	4,530
Total	4,965	4,165	9,130
MDAC (executive):			
Resident	90	480	570
On-site	30	180	210
Total	120	660	780
Defense Contracting for information resources:			
Resident	210	210	420
On-site	140	140	280
Total	350	350	700

The National Guard Bureau (NGB), through its Principal Assistant Responsible for Contracting (PARC), is responsible for assuring that contracting personnel in both the Army and Air Guard are trained pursuant to DOD policy. Exhibit VII-28 identifies the contracting training courses attended by National Guard Bureau personnel in FY 87 and FY 88.

EXHIBIT VII-28—NATIONAL GUARD BUREAU CONTRACTING PERSONNEL TRAINED

	FY 87	FY 88
Cost/price analysis	25	30
Contract negotiation workshop	28	30
Management of defense acquisition contracts (basic)	26	0

EXHIBIT VII-28—NATIONAL GUARD BUREAU CONTRACTING PERSONNEL TRAINED—Continued

	FY 87	FY 88
Management of defense acquisition contracts (advanced)	0	30
Small purchase	34	0
Contract law (2 classes)	0	60
Total	113	150

The Corps of Engineers provides four courses for its civilian contracting officers who are not in the GS-1102 series. Exhibit VII-29 identifies these courses and provides their length.

EXHIBIT VII-29—CORPS OF ENGINEER COURSES FOR NON-GS-1102 CONTRACTING OFFICERS

Course title	Length
Construction contract administration	36 hours.
Advanced construction contract administration	36 hours.
Negotiating construction modifications	32 hours.
Cost analysis	32 hours.

Corps military officers attend two courses: the District Officer Introduction to Contracting Course and the Corps of Engineers Commanders Pre-Command Course. These courses have not been certified as equivalent to the DOD mandatory courses.

In addition, the Army Health Services Command medical logisticians (SSI 67K) who are warranted contracting officers do not attend all the mandatory contracting courses. Instead, these officers enter the Army Medical Department Acquisition Officer Intern Training Program. Only the three following courses are required: Management of Defense Acquisition Contracts (Basic), Defense Small Purchase, and Government Contract Law or Base Contract Law.

Navy

The Navy is unable to report on the mandatory training status of its personnel for current or recent fiscal years. The Navy now recognizes the need for information on the training, education, and experience of its contracting workforce in a timely and centralized fashion, and it has developed two initiatives to correct this deficiency. First, the Navy Contracting Career Management Board (NCCMB) determined that a quarterly "snap shot" of the workforce is necessary to scope the size of the training requirement. A work group was established to create a system to gather management information currently in use to determine the training requirements. The first report of this group was due on April 30, 1989. Second, in February 1989, the Navy's contract with its Defense Management Education and Training (DMET) contractor now requires the contractor to provide selected information by class on each student. This new capability should provide monthly training completion data.

While today the Navy cannot identify training requirements, in 1986 it did provide training backlogs and requirements to the ACE

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Program Office. As the requested data was provided, Navy officials noted that the reliability of the data was questionable. Notwithstanding these limitations, the Navy reported its 1986 contracting training status as depicted by Exhibit VII-30.

EXHIBIT VII-30—NUMBER REQUIREMENTS/BACKLOG

[Percent not trained]

Course	Civilian				Military			
	Assigned	Backlog	Percent	Annual req.	Assigned	Backlog	Percent	Annual req.
Contract adm. (advanced)	1599	759	47	159	77	52	68	8
Contract adm. (basic)	1702	1534	90	171	328	328	100	33
Def. acq. and con. exec. sem.	898	578	64	89	112	112	100	11
Contract neg. workshop	691	355	51	69	328	196	60	33
Cost/price analysis	373	196	53	37	164	65	40	17
Small purchase	2675	1123	42	268	328	295	90	33
Contract law	3285	2299	70	328	154	86	56	15
MDAC (adv.)	1599	759	47	159	77	52	68	8
MDAC (basic)	1740	1043	60	175	368	93	25	37
Mngt. of managers	125	93	74	12	19	16	84	2
Contract pricing	373	196	53	37	164	65	40	17
Total	15060	8935	59	1504	2119	1360	64	214

The Navy has established a training team concept consisting of a triad of training sources: the Defense Management Education and Training (DMET) contract; the Navy Acquisition Management Training Office (NAMTO); and, the Naval Facilities Contracts Training Center (NFCTC). The Navy began satisfying its specialized contract training requirements under commercial contract in the late 1950s. This approach allowed the Navy to send contract instructors to students at specific locations. With the establishment of the Defense Management Education and Training (DMET) Program in the 1960s, each service agreed to share responsibility for the training of its workforce.

At this time, the Navy decided to continue using the contract approach. During the period from Fiscal Year 1986 through Fiscal Year 1988, the Navy offered as many as 14 different courses under its DMET contract including the following eight mandatory courses, the first three of which the Navy is the DOD sponsor: Defense Cost and Price Analysis, Defense Contract Negotiation Workshop, Defense Acquisition and Contracting Executive Seminar, Contract Law, Management of Defense Acquisition Contracts (Basic), Management of Defense Acquisition Contracts (Advanced), Contract Administration, and Quantitative Techniques for Cost and Price Analysis. The Navy is also the sponsor for five non-mandatory contracting courses, such as the Defense Contracts Management for Technical Personnel course.

From FY 1986 through FY 1988, 10,200 personnel (civilian and military from all services) received Navy sponsored training through this mode. The specific breakout is shown in exhibit VII-31.

EXHIBIT VII-31—CONTRACTING TRAINING THROUGH DMET

Course	FY 86		FY 87		FY 88	
	Classes	Students	Classes	Students	Classes	Students
Cost and price analysis	53	1325	51	1275	48	1200
Contract negotiation workshop	56	1400	63	1575	55	1375
Defense acquisition and contracting executive seminar	24	600	30	750	28	700

In addition, five other mandatory contracting courses were taught by the DMET contractor in the period FY 86 through FY 88. There were 16 classes of Defense Contract Law (400 students); 12 classes of the Management of Defense Acquisition Contracts (Basic) (300 students); four classes of the Management of Defense Acquisition Contracts (Advanced) (100 students); four classes of Contract Administration with 100 students; and, five classes of Quantitative Techniques for Cost and Price Analysis (125 students). Thus, the contractor serves as the Navy "shock-absorber" for training Navy and DOD employees over-and-above the cognizant proponent schools. For example, the Air Force trained 1,350 personnel under the Air Force Logistics Command PACER PRODUCE intern training between 1984 and 1986. Approximately, 5,400 Air Force civilians were also trained under COPPER TOP between 1986 and 1988 using the Navy Contractor. This represents 73 percent of the total training provided by the DMET contractor.

Based upon the services' requirements, in FY 89 the Navy is offering 21 classes of the Defense Acquisition and Contracting Executive Seminar with 469 quotas allocated as follows:

EXHIBIT VII-32—DEFENSE ACQUISITION AND CONTRACTING EXECUTIVE SEMINAR FY 89 ALLOCATIONS

Service	Quotas	Percent
Army	60	13
Navy	281	60
Air Force	110	23
DLA	18	4

Under the new, more centralized training program, the ACE Program Office has also delegated authority to the Navy for FY 90 to teach mandatory courses over which other services may have cognizance. Training will be provided by the Navy Acquisition Management Training Office (NAMTO) in Norfolk, Virginia. NAMTO was established in October 1985 by the Commander, Naval Supply Systems Command. Its primary purpose was to increase the needed training for contracting personnel working in the more than 900 contracting offices throughout the Navy Field Contracting System. Located at the Naval Supply Center Norfolk, NAMTO employs 51 civilians; it is an organizational component of the Fitting Out and Supply Support Assistance Center (FOSSAC) and is organized as shown at Exhibit VII-33.

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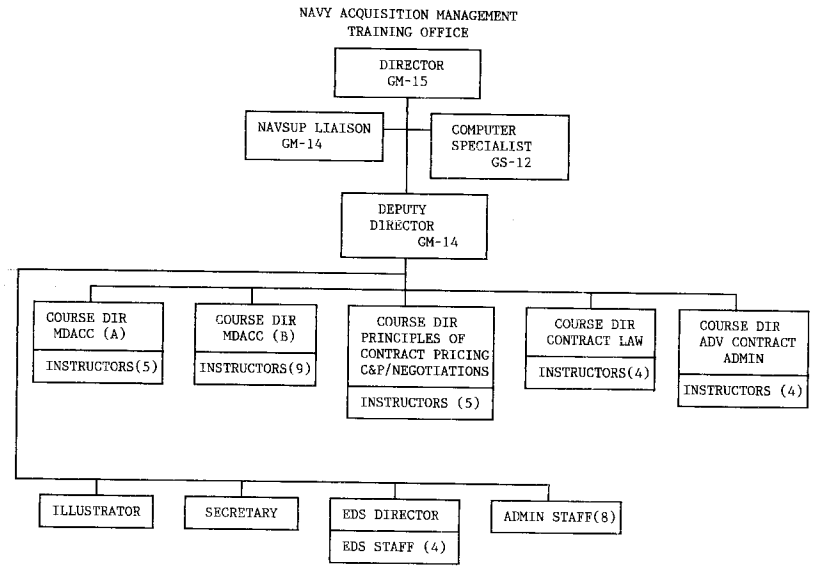
EXHIBIT VII-33



NAMTO delivers courses on-site at Navy locations world-wide. The NAMTO instructors are primarily GS-1102 contract specialists. For other than facilities contracting, NAMTO is the Navy in-house resource for mandatory course development. NAMTO has been certified to teach the eight mandatory contracting courses, shown in exhibit VII-34 along with numbers of classes offered and students taught:

EXHIBIT VII-34—MANDATORY CONTRACTING COURSES AT NAMTO

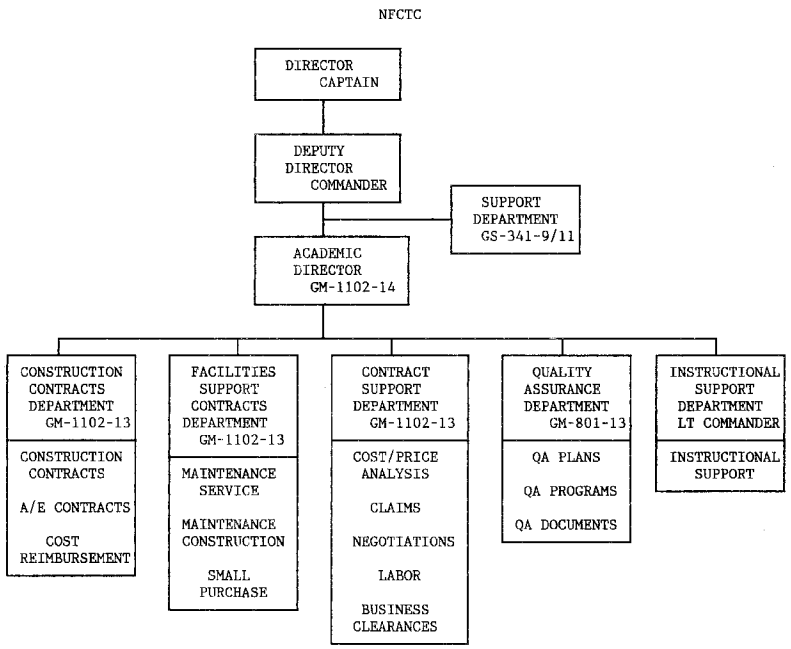
Course	FY 86		FY 87		FY 88	
	Classes	Students	Classes	Students	Classes	Students
Cost and price analysis	9	201	9	227	20	582
Contract negotiation workshop	9	296	9	250	18	536
Contract law	1	30	0	0	20	627
Management of defense acquisition contracts (basic)	12	379	12	376	27	819
Management of defense acquisition contracts (adv)	5	129	7	189	18	512
Contract administration	0	0	0	0	15	413
Contract administration (adv)	0	0	0	0	6	150
Defense Acquisition and contracting executive seminar	0	0	0	0	3	79
Total	36	945	37	1042	127	3718

NAMTO has proven very effective in supplementing the regular training sources, having taught over 5,700 individuals in the mandatory contracting courses since Fiscal Year 1986. Both NAMTO and NFCTC will be teaching the Government Contract Law course

in FY 90, NAMTO on-site and NFCTC in both resident and on-site modes. NAMTO will also teach the following AFIT courses on-site: Advanced Contract Administration, Principles of Contract Pricing, Quantitative Techniques for Cost and Price Analysis. NAMTO will teach the Management of Defense Acquisition Contracts (Basic) course, under the cognizance of ALMC on-site.

The Naval Facilities Contract Training Center (NFCTC) at Port Hueneme, California also teaches contracting courses, and is organized as shown at Exhibit VII-35. Established in December 1984 by the Commander, Naval Facilities Engineering Command as part of the Civil Engineer Corps Officers School (CECOS), the function of NFCTC is to support the Naval base and facilities construction mission with a viable training program. It has worked closely with AFIT to refine three contracting courses: Defense Cost and Price Analysis, Government Contract Law, and Defense Contract Negotiation Workshop. These courses are taught with an emphasis on construction and base operating support services contracting. NFCTC employs 26 people, including six officers and 20 civilians; fourteen are faculty members.

EXHIBIT VII-35



Since 1986, NFCTC has taught 94 offerings of the three courses, and trained 2,600 military and civilian personnel as shown in Exhibit VII-36.

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EXHIBIT VII-36—COURSES TAUGHT AT NFCTC

Course	FY 86		FY 87		FY 88	
	Classes	Students	Classes	Students	Classes	Students
Cost and price analysis	12	215	8	319	9	231
Contract negotiation workshop	10	183	10	328	11	353
Contract law	12	208	10	405	12	376
Total	34	606	28	1052	32	960

However, only the Government Contract Law course has been recognized by DSMC as equivalent to the DOD mandatory courses.

Air Force

Like the other services and agencies, the Air Force faced a challenge in training its military and civilian contracting personnel. Following the established procedures, the Air Force sought to train its officers and civilians by utilizing a standard Air Force training data system known as the Pipeline Management System (PMS). This system identifies individual requirements as well as gross requirements and interfaces with the cognizant schools. The military and civilian personnel data systems input requirements to the PMS.

The Air Force training situation is also unique among the services in that it has a large group of enlisted personnel that also requires training. Traditionally, the enlisted force and many officers and civilians have been trained through the Lowry Technical Training Center (LTTC) contracting courses, which have been recognized as substitutes for the regular DOD proponent schools. While focusing on base-level contracting, LTTC has also offered courses in the central and systems contracting arena.

The Air Force reacted quickly to the 1984 DOD IG Report on the Audit of Department of Defense Procurement Training (No. 84-047) by establishing a program, code-named Project COPPER TOP, to reduce the civilian training backlog. In addition, the Air Force Management Analysis Group (AFMAG) was asked to examine completion of mandatory training as it related to problems identified in spare parts acquisition. The AFMAG recommended allocations for mandatory training equal to 90 percent of requirements. The initial backlog was identified through a manual survey conducted in January 1984 and projected 14,000 civilian contracting requirements. At the time of its inception, COPPER TOP was described by the Air Force leadership as:

> an ongoing effort to address long-standing deficiencies in the training of the contracting workforce . . . The training is not a luxury, but rather required to provide basic and intermediate level knowledge and skills needed to effectively perform in an increasingly complex contracting environment. For the good of the Air Force the deficiencies must be corrected.

The Air Force Director of Contracting and Manufacturing Policy obtained approximately $500,000 which was distributed to Air Force Logistics Command (AFLC) and Air Force Systems Command

(AFSC) to use for reducing the training backlog of their contracting civilians.

In addition, AFLC had established a special command intern program known as PACER PRODUCE to replenish the contracting workforce while keeping up with an expanding workload. These interns were originally trained in a centralized location by completing all the entry-level mandatory courses in sequence; then, the interns were moved to the various Air Logistics Centers for their on-the-job training. In later iterations of PACER PRODUCE, interns were trained at their respective ALCs. In both cases, the Air Force relied on the Navy contractor and ALMC instructors to bring the classroom to the workplace.

With the establishment of the CMCCP and its PALACE Team within the Air Force Civilian Personnel Management Center in January 1985, the framework was established for a centralized, Air Force-wide management approach. A problem facing the PALACE Team, which is characteristic of all the services, was that it did not know how many people required what courses; nor did it know who or where they were. Even though the Air Force had a training subsystem within the Personnel Data System—Civilian (PDS-C), it was not working optimally and required systems enhancements and extensive data base management.

The Air Force adopted a two-pronged approach to solving this problem. First, the software subsystem of the Personnel Data System—Civilian (PDS-C) training system was fixed. This was followed by a massive Air Force-wide effort to purify the data base and maintain it, known as COPPER PURE, and involved every Civilian Personnel Office, every manager and every civilian GS-1102 employee in the Air Force. Second, the Air Force decided to centrally manage training by centralizing the funding and controlling the allocations through the PALACE Team, which also established—in conjunction with every MAJCOM in the Air Force—a world-wide training schedule.

Equally important centralized funds were provided by the Air Force Secretariat. In August 1985, the Assistant Secretary of the Air Force (Financial Management) advised the OASD (Comptroller) that the Air Force would take all "actions necessary to ensure all of our procurement personnel have met mandatory training requirements."

The emphasis was to bring the classroom to the workplace in so far as possible, thus reducing costs. From its inception, COPPER TOP was intended to supplement, not replace, the traditional training infrastructure. The CMCCP PALACE Team held annual conferences of civilian personnel/functional representatives from cognizant MAJCOMs as well as the DOD schools to develop a viable schedule for the next year. The Team provided detailed and timely reports to the CMCCP Policy Council on courses, fill-rates, and MAJCOM support of the program. By exploiting the data system, the senior Air Force civilian leadership was able to telescope in on problem areas and provide guidance and instructions, as necessary, to the appropriate MAJCOMs and field offices. This program was highly successful, as can be seen by a review of its history, as shown in Exhibit VII-37.

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EXHIBIT VII-37—COPPER TOP SUMMARY

Copper top	Year	Budget	Number trained	Cost per student
II	1986	$1,560,000	1,685	$926
III	1987	$2,711,000	3,160	$858
IV	1988	$2,100,000	3,029	$693
V	1989	$ 464,000	1,104	$420
Total		$6,835,000	8,978	$761

Thus, COPPER TOP proved a significant tool to reduce the training backlog of civilians. One also discerns decreasing per capita costs with each iteration of COPPER TOP. The cost to train a student was also much less than in the traditional resident mode. For example, Air Training Command estimated a cost of about $1,000 per student for comparable classes in residence. Courses taught by AFIT were comparable, as can be seen by the AFIT FY 90 budget report extract (Exhibit VII-38).

EXHIBIT VII-38—AFIT FY 90 BUDGET REPORT

Course	Resident cost	On-site cost
Contract pricing	$1295/student	$3700 and $400/student.
Contract law	$1008/student	$4200 and $260/student.
Contract administration (advanced)	$1008/student	$4575 and $260/student.
Quantitative techniques cost and price analysis.	$1254/student	$3990 & $380/student.
Contract admin (executive)	$715/student	Not taught on-site.
Advance contract pricing	$1008/student	$2695 and $260/student.

In the On-Site Cost column, the first figure represents the cost for faculty instructors and the second amount represents the cost per student. For example, the cost to teach contract pricing on-site was $3700 for the instructor and an average of $400 per student attending. Thus, one can see that the on-site mode of instruction was more cost-effective. It should be noted, however, that resident costs also include course development costs, which are not always included in on-site costs.

There are, however, disadvantages to the on-site mode. First, the quality of instruction must be monitored. Second, adequate facilities must be provided. Lastly, on-site classes tend to be more homogeneous than resident classes which have students from all DOD components.

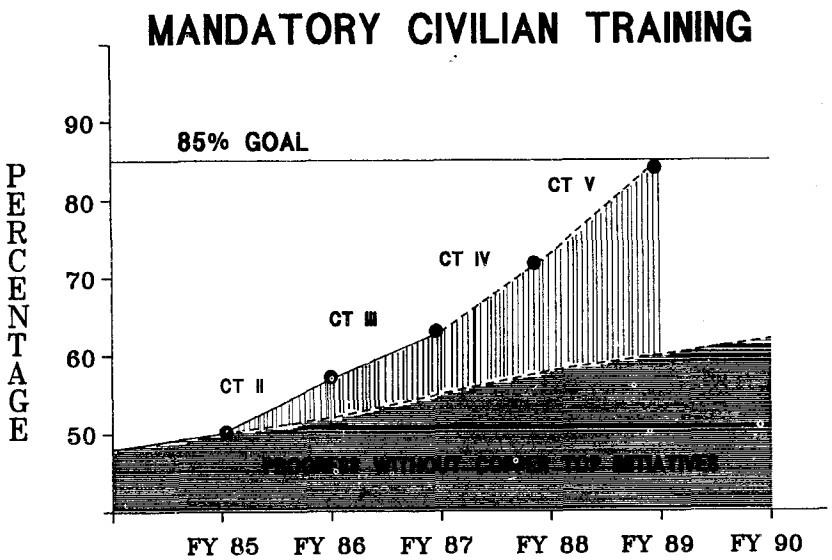
Another advantage from the centralized management manifested in the COPPER TOP program, was a much higher fill-rate than the resident schools achieved. Fill rates historically exceeded 96 percent in the COPPER TOP classes. The situation of AFIT relative to the fill-rate problem is not considered atypical. In FY 1988, AFIT had 359 unfilled seats in six mandatory contracting courses. These unused allocations and the fill rate for each course are shown in Exhibit VII-39.

EXHIBIT VII-39—FILL-RATES FOR AFIT MANDATORY COURSES

Course	Unused	Fill-rate
Contract pricing	123	78%
Contract law	34	97%
Contract administration (advanced)	145	83%
Quantitative techniques for cost and price analysis	25	93%
Advanced contract pricing	29	64%
Contract administration	3	97%

Undoubtedly, the COPPER TOP initiative provided a cost-effective and efficient mechanism for reducing the training backlog while responding to the needs of the Air Force civilian leadership. In a 1987 report to the Under Secretary of the Air Force, the CMCCP PALACE Team projected that the DOD goal of 85 percent might be reached by FY 89 with full funding, as indicated by Exhibit VII-40.

EXHIBIT VII-40



With austere budgets, however, funding was reduced and this goal was not achieved. In its response to the DEPSECDEF guidance, the Air Force programmed over $17 million between FY 89 and FY 94. In every year, however, actual COPPER TOP funding was lower, and in FY 89 it was cut 82 percent. Finally, it was eliminated in FY 90 through FY 94.

Like the Navy and DLA, the Air Force has made significant progress in reducing the training backlog, especially of its civilians. However, like the other services and DLA, the Air Force has had difficulty in properly identifying its true backlog. The systems

changes in the Personnel Data System-Civilian (PDS-C) and the various iterations of COPPER PURE resulted in a well scrubbed data base, which—nonetheless—requires continued maintenance. The training data on military personnel requires a similar effort.

The difficulty may be seen when one compares the Air Force input to the ACE Program Office in August 1986 (Exhibit VII-41) with an updated input in 1988 (Exhibit VII-42).

EXHIBIT VII-41—NUMBER REQUIREMENTS/BACKLOG

[Percent not trained]

Course	Civilian				Military			
	Assigned	Backlog	Percent	Annual req.	Assigned	Backlog	Percent	Annual req.
Contract admin (advanced)	2155	1319	61	103	249	217	87	22
Contract admin (basic)	1667	1504	90	88	2416	241	100	197
Def. acq. and con. exec. sem.	1112	470	42	54	384	241	63	34
Contract negotiation workshop	1210	741	61	65	2416	2172	90	197
Cost/price analysis	607	328	54	32	1208	957	79	99
Small purchase	2061	1818	88	108	2416	2416	100	197
Contract law	4408	1721	39	214	498	363	73	44
(MDAC) (adv.)	2155	1319	61	103	249	217	87	22
(MDAC) (basic)	1667	947	57	88	2416	1786	74	197
Mngt. of managers	154	114	74	8	48	48	100	4
Contract pricing	607	328	54	32	1208	957	79	99
Total	17803	10609	60	895	13508	9615	71	1112

The Air Force reported that its backlog of civilian mandatory training requirements was 60 percent and the backlog of its military personnel were 71 percent. These requirements were probably understated as in the case of the other services. The Air Force input at that time was based on an incomplete COPPER PURE for civilians as well as a military data base which was inaccurate.

EXHIBIT VII-42—UPDATED 1988 DATA

Course	1986	1988	Percent
Contract administration (advanced)	1536	1308	−15
Contract law	2084	4958	+140
Management of Defense Acquisition Contracts (MDAC) (basic)	2733	1205	−55
Management of Defense Acquisition Contracts (MDAC) (advanced)	1536	3035	+98
Contract pricing/cost and price analysis	2570	1154	−55
Defense acquisition and contracting executive seminar	711	1305	+84
Total	11,170	12,965	+16

The Air Force acknowledges that the backlog requirements provided for the FY 90 budget are inaccurate. The proper tracking of military training requirements remains a problem. For the civilian workforce, the backlog has improved significantly. In January 1989, the Air Force reported that its total training backlog for GS-1102 personnel was down to 32 percent. The largest portion of the training requirements and course completions are found in the two procurement commands: AFSC and AFLC (Exhibit VII-43). The remainder are in the operational MAJCOMS.

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EXHIBIT VII-43—TRAINING REQUIREMENTS AT AFSC AND AFLC

	Course requirements	Course completions	Percent complete	Percent backlog
AFLC	14106	10630	75	25
AFSC	14739	9915	67	33
Operational Contracting	11938	7232	61	39
Total	40783	27777	68	32

In comparing training requirements for civilians between 1986 and 1989, one finds, generally, positive trends (Exhibit VII-44) except for Contract Pricing or Defense Cost and Price Analysis.

EXHIBIT VII-44—TRAINING REQUIREMENTS FOR CIVILIANS

Course	Backlog	
	1986	1989
Management of Defense Acquisition Contracts (MDAC) (basic)	947	880
Management of Defense Acquisition Contracts (MDAC) (advanced)	1319	945
Contract law	1721	809
Contract pricing/cost and price anal.	656	1385
Defense acquisition and contracting	470	443
Total	5113	4462

The Air Force is the sponsor for six mandatory contracting courses through the Air Force Institute of Technology. Historically, AFIT has been overburdened and unable to meet the demands for the contracting courses under its cognizance. In FY 1988 it provided 127 class offerings of the seven mandatory courses under its cognizance. One course, Contract Administration, is no longer a mandatory course. These classes and the distribution of spaces are shown in Exhibit VII-45.

EXHIBIT VII-45—AFIT CONTRACTING TRAINING FY 89

Course	Number	Spaces by service					
		Army	Navy	AF	DLA	Other	Total
Principles of contract pricing	24	142	19	346	43	2	552
Government contract law	43	385	263	310	233	39	1230
Advanced contract administration	35	214	151	288	218	4	875
Qnt techniques cost and price analysis	17	29	48	245	37	1	360
Contract admin (executive) (new course)	0	0	0	0	0	0	0
Advanced contract pricing	4	18	2	56	1	3	80
Contract administration	4	23	19	36	18	0	96
Total	127	811	502	1281	550	49	3193

In FY 1989 it is offering 109 classes of the six mandatory courses. The distribution of quotas for these classes is shown in Exhibit VII-46.

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EXHIBIT VII-46—AFIT CONTRACTING TRAINING FY 89

Course	Number	Spaces by service					
		Army	Navy	AF	DLA	Other	Total
Principles of contracting pricing	19	106	56	268	47	3	480
Government contract law	37	428	76	290	253	33	1080
Advanced contract administration	29	187	22	265	271	4	749
Qnt techniques cost and price analysis	13	49	29	201	32	1	312
Contract admin (executive)	9	9	15	52	59	0	135
Advanced contract pricing	2	9	1	44	5	1	60
Total	109	788	199	1120	667	42	2816

These numbers reflect the spaces allocated to each service at the beginning of the fiscal year. Actual attendees are not all contracting personnel.

DLA

The Defense Logistics Agency also responded positively to the DOD IG Report, seeking to reduce the backlog of training of its contracting personnel. In accomplishing this, it had to rely on a decentralized management approach, which was further impeded by the lack of a standard DLA data system responsive to the management of the training effort. Recognizing that class capacity in the resident schools was a problem, DLA turned to alternative modes, including: on-site courses taught by cognizant service schools; DLA and contractor instructors; correspondence courses; college equivalent courses; equivalency tests and the television satellite (teleteach) courses. Despite these efforts and those of the service schools to maximize allocations, insufficient spaces for some of the mandatory courses taught by the service schools have contributed to DLA's backlog. This is especially true of personnel assigned to the Defense Contract Administration Services Regions (DCASRs), where wide geographical dispersion of personnel complicates the opportunities for on-site courses. Some mandatory courses are taught only in residence (this is especially true of courses taught by AFIT) and are, as one might expect, courses with some of the largest backlogs.

Training of DLA personnel in the ALMC sponsored courses has been hindered by lack of adequate funding. For example, one-half of the estimated backlog for the service Centers at the end of FY 87 was due to the cancellation of all on-site presentations of the Management of Defense Acquisition Contracts (Advanced) course. This situation has not improved. In December 1988 Army Materiel Command was forced to cancel most of the on-site mandatory course offerings of ALMC because of their inability to fund the travel and per diem of instructors. Courses could only be offered if the host activity could fund ALMC's expenses.

One innovative approach adopted by DLA was to establish an internal training function similar to the Navy Acquisition Management Training Organization (NAMTO). In April 1986 the DLA Civilian Service Support Office (DCPSO) began teaching contracting courses throughout the Agency. The instructors are DLA contracting (GS-1102) civilians; currently twelve are authorized. To date,

DCPSO has taught 1171 students in 47 classes as shown in Exhibit VII-47.

EXHIBIT VII-47—DLA CIVILIAN SERVICE SUPPORT OFFICE COURSES

Course	Classes	Students
Management of defense acquisition contracts (basic)	15	320
Contract administration	14	403
Defense small purchase	15	373
Contract pricing	3	75
Total	47	1171

With these extraordinary efforts to complement the traditional class offerings through the cognizant schools, DLA was able to reduce its backlog from 8,162 in December 1984 to an estimated 2,652 in October 1987 (Exhibit VII-48). This backlog represents all the Contracting and Manufacturing traditional "1100 family", that is, GS-1101, 1102, 1103, and 1150 series.

EXHIBIT VII-48—DLA TRAINING BACKLOG

	Dec 1984	Oct 1987 (est)	Percent
Supply centers	3,606	600	83
DCASRS	4,556	2,052	55
Total	8,162	2,652	68

DLA does not know with certainty its backlog situation because of automatic data processing limitations previously discussed in Chapter III. Based on DLA figures, the backlog was significantly reduced for all four occupational series between 1984 and 1987. The percentage column reflects the October 1987 backlog as a percent of the December 1984 total. The backlog in the Supply Centers, for example, was reduced by 83 percent within the period under consideration.

The training completed in Fiscal Years 1985 and 1986, coupled with the projections for 1987 (Exhibit VII-49) would far exceed the December 1984 backlog of 8,162. However, training would not be eliminated because training requirements are constantly growing with new hires and individual advancement into higher grades The DLA statistics on training completed are current only through FY 86, with an estimate for FY 87.

EXHIBIT VII-49—DLA TRAINING COMPLETED

	FY 85	FY 86	FY 87 (est)	Total
Supply centers	2,279	1,771	1,650	5,700
DCASRS	4,982	5,793	2,062	12,837
Total	7,261	7,564	3,712	18,537

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Yet the problem of finding the correct number in a dynamic environment is akin to finding the philosopher's stone. This can be seen in comparing the above data to the backlog figures for GS-1102 personnel only, reported to the ACE Program Office in August 1986 (Exhibit VII-50). Here one finds a "current" backlog of 7,906 and an annual requirement of 2,827.

EXHIBIT VII-50—DLA BACKLOG AS REPORTED TO ACE PROGRAM OFFICE—1986

Course	Assigned	Backlog	Percent	Requirements
Contract administration (adv)	2064	881	43	282
Contract administratration (basic)	1487	1215	82	337
Defense acquisition and contracting executive seminar	641	641	100	32
Contract negotiation workshop	1263	460	36	300
Defense small purchase	1582	1582	100	337
Cost/price analysis	633	36	6	151
Contract law	4433	1829	41	613
Management of defense acquisition contracts (advanced)	2064	881	43	282
Management of defense acquisition contracts (basic)	1487	278	19	337
Management of managers	105	67	64	5
Contract pricing	633	36	6	151
Total	16392	7906	48	2827

The problem of properly identifying requirements is highlighted by the disparity between the training requirements in 1986 and 1988 for the same courses, even after the extraordinary training efforts mentioned above.

When comparing the same courses in 1986 and 1988, one finds a decrease in the backlog from 4546 to 3945, a decrease of 13 percent. This is shown for certain courses in exhibit VII-51.

EXHIBIT VII-51—BACKLOG IN TRAINING 1986 AND 1988

	1986	1988
Contract administration (advanced)	881	125
Contract law	1829	465
Management of defense acquisition contracts (basic)	278	500
Management of defense acquisition contracts (advanced)	881	2300
Contract pricing	36	455
Defense acquisition and contracting executive seminar	641	100
Total	4546	3945

Program Manager Training

The only mandatory course for Program Managers, identified by law, is the Program Management Course at the Defense Systems Management College or a comparable Program Management Course at another institution. The Program Management Course (PMC) is taught by Defense Systems Management College (DSMC) at Fort Belvoir, Virginia, and has been of 20 weeks duration. Title 10 U.S.C. Section 1622 requires that Program Managers of major weapon system acquisitions complete this course prior to their as-

signment as Program Managers. Currently, there is no equivalent course to the Program Management Course.

This requirement differs significantly from that of contracting personnel. In the latter situation, there are a number of mandatory courses for a whole class of personnel. This results in a significant demand on the training resources of the DOD. In the case of the Program Managers, the course is only mandatory for individuals prior to occupying select positions and is thus a function of that position, not of the occupational series or class. The essential requirements for this course remain manageable since there currently are only 93 major programs (36 Navy, 29 Air Force, and 28 Army).

The services have had difficulty, however, in getting their designated Program Managers through the course but have improved since the ACE Report of August 1986. Exhibit VII-52 indicates that only 31 percent of cognizant Program Managers had completed the Program Management Course in 1986. By January 1989, the percentage had increased to 54 percent (Exhibit VII-53).

EXHIBIT VII-52—COMPARISON OF MAJOR PROGRAM MANAGERS TO PMC GRADUATES AUGUST 1986

	Army	Navy	Air Force	Total
Program managers	20	38	35	93
PMC graduates	15	2	12	29
Percent	75	5	34	31

EXHIBIT VII-53—COMPARISON OF MAJOR PROGRAM MANAGERS TO PMC GRADUATES JANUARY 1989

	Army	Navy	Air Force	Total
Program managers	28	36	29	93
PMC graduates	26	10	14	50
Percent	93	28	48	54

While all services have shown some improvement the last two and one-half years, the fact that they have not been able to get all required Program Managers through the course is not due to a lack of course availability. According to the Defense Acquisition Education and Training FY 90 Budget, there were an estimated 560 graduates in both Fiscal Years 1988 and 1989.

The services have been sending far more people to the Program Management Course (PMC) than would be necessary to fill any expected Program Manager vacancies, even using the most generous attrition rates. For example, in August 1986, the services identified 607 requirements for the PMC (Exhibit VII-54) as follows.

EXHIBIT VII-54—PROGRAM MANAGEMENT COURSE REQUIREMENTS

Service	Military	Civilian	Total
Army	91	0	91
Navy	266	0	266

EXHIBIT VII-54—PROGRAM MANAGEMENT COURSE REQUIREMENTS—Continued

Service	Military	Civilian	Total
Air Force	250	0	250

In planning for fiscal year 1990, the ACE program office at DSMC identified the following requirements for the Program Management Course (Exhibit VII-55).

EXHIBIT VII-55—PROGRAM MANAGEMENT COURSE REQUIREMENTS AND ALLOCATIONS

	Army	Navy	Air Force	Other	Total
Requirements	26	44	35	5	110
Allocations	188	188	188	21	585
Percent difference	+623	+327	+437	+320	+432

Concerning the requirements in 1986, two observations are immediate. First, the requirements for PMC quotas were 880 percent of the actual number of major programs for which the course was required. Second, no civilians were identified to attend the PMC even though there are a limited number of civilian Program Managers. For FY 90, all of the identified requirements are for military officers in the three services. This number does not include students from civilian agencies of the government and private industry. For example, DSMC traditionally reserves ten percent of their quotas for students from private industry, who attend at no charge. Again, the allocations far exceed the basic demands for this course.

There is, however, an explanation for this apparent paradox. Officials at the Defense Systems Management College point out that the Program Management Course is not solely intended for Program Managers of major weapon system acquisitions. The course is also intended for more junior acquisition officers who will develop into the Program Managers of tomorrow. In fact, there is an unofficial "seven for one" rule which states that seven individuals need to complete the Program Management Course to assure that there is at least one Program Manager available, who has completed this required course.

Because demand has ostensibly exceeded resources, the course has now been divided into two parts. Part I is six weeks and is offered at Ft. Belvoir and its four satellite campuses (Boston, Huntsville, St. Louis, Los Angeles). Part II, consisting of the remaining 14 weeks, is taught at Ft. Belvoir. Upon completion of PMC Part I, individuals receive advanced placement status into Part II (valid for three years after graduation from Part I). For graduates with substantial acquisition experience subsequent to graduation from Part I, the three year Advanced Placement status may be extended by DSMC. In addition, there are two alternative means of Advanced Placement into the Program Management Course, but both require successful completion of the PMC Part I Certification Examination—developed by DSMC as an equivalency test for PMC Part I. First, senior candidates—defined as GS-13 or O-4 and above—with substantial acquisition experience, designated by their service, may

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enter PMC Part II within one year of successfully completing the examination. Second, graduates from certain service acquisition courses, who are nominated by their service and who pass the PMC Part I examination, may enter PMC Part II within one year. The minimum grade in this case is O-3 or GS-12. Currently, only three Air Force Institute of Technology courses and two systems acquisition courses taught by the Air Force Systems Command Systems Acquisition School are recognized acquisition courses. As of November 1988, 15 people had passed this test.

Current Status

Beginning in Fiscal Year 1990 (1 October 1989), the ACE Program Office in the Defense Systems Management College will endeavor to centrally coordinate and manage the mandatory course contracting and Program Management requirements of the Department of Defense. It will be responsible for managing and allocating funds to the various schools and services for 23 different courses.

One of these courses is for Program Managers and twelve are for contracting personnel. Out of a total budget of $17,790,000 for all mandatory acquisition courses, $13,915,397 (78 percent) is allocated to the Program Management Course and the 12 contracting courses. The breakout of the courses and numbers to be trained are shown in Exhibit VII-56. Forty-five percent of this subtotal is allocated to the Program Management Course.

EXHIBIT VII-56—DSMC BUDGET FOR PROGRAM MANAGEMENT AND CONTRACTING COURSES (1990)

Course	Budget	Students
Program management course	$5,542,295	585
Contract administration executive	257,242	367
Government contract law	1,674,191	3,250
Contract administration (advanced)	593,012	933
Principles of contract pricing	1,547,740	2,286
Quantitative techniques for price and cost analysis	225,534	283
Advanced contract pricing	80,149	63
Management of defense acquisition contracts (basic)	1,868,493	2,410
Management of defense acquisition contracts (advanced)	1,467,690	2,646
Management of defense acquisition contracts (executive)	1,551,164	801
Defense contracting for information resources	240,298	223
Major systems acquisition for contracting personnel	170,589	38
Defense acquisition and contracting executive seminar	461,039	832

The cost per student for the Program Management Course is $9,474. This includes the cost of per diem and related travel expenses for the 20-week course. The average cost for the mandatory contracting classes is only $592 per student. This includes short one-week classes as well as four-week classes.

These funds are probably insufficient to meet the training requirements in the contracting career field. This is especially the case for three reasons: (1) the funded requirements do not meet the total known requirements, which are most likely understated; (2) the course offerings for new required courses are meager compared to the overall requirements; and, (3) no funding or quotas were provided for military personnel in the Army and Air Force Reserve and National Guard, although the mandatory courses apply equally to them. Conversely, the mandatory training requirements for Program Managers are greatly exceeded. Based on the projected funding and classroom quotas, one will find an excess of individuals requiring the course for Program Manager positions enrolled in the Program Management Course and a shortfall in contracting.

Overall, there are indications of progress in reducing the training backlogs. For contrasting, however, the achievement of the 85 percent training goal that was established by the Deputy Secretary of Defense in August 1985 remains problematic. Exhibit VII-57 provides a breakout of current mandatory contracting and systems acquisition training requirements, lists fiscal year 1990 requests for this training, current quotas for these courses, as well as the 85 percent required training level for each course. Based on this analysis, only 36 percent of the 1990 required contracting training can be met under the current quotas. Only in the training of Program Managers does the resources exceed the requirements.

EXHIBIT VII-57—MANDATORY TRAINING REQUIREMENT/QUOTAS

[Requests/Quotas]

	Army	Navy	Air Force	DLA	Other	Total requests/ quotas	85 percent goal
Contract Administrative Executive	294/63	260/56	372/80	750/162	27/6	1703/367	1448
Contract Law	1399/1179	3390/787	4958/1151	465/108	11/26	10323/3250	8775
Adv Contract Admin	403/339	1012/243	1308/314	125/30	28/7	2875/933	2444
Principles of Contract Pricing	750/638	983/601	1154/739	455/291	27/17	3324/2286	2825
Quantitative Techniques for Price/Cost Analysis	112/94	271/63	397/92	135/31	9/2	923/283	785
Adv Contract Pricing	87/19	82/17	99/21	20/4	8/2	296/63	252
MDAC (Basic)	805/678	973/623	1205/771	500/320	27/17	3510/2410	2984
MDAC (Adv)	935/787	2350/564	3035/728	2300/552	64/15	8684/2646	7381
MDAC (Exec)	1173/254	962/208	1249/270	250/54	73/16	3707/801	3151
Def Contracting for Infor Resources	98/82	237/55	347/80	15/3	8/2	705/223	599
Maj Systems Acq for Contracting Personnel	55/12	51/11	62/14	0/0	5/1	172/38	146
Def Acq and Contracting Executive Seminar	301/254	1163/251	1305/282	100/22	108/23	2977/832	2530
Program Management Course	26/188	44/188	35/188	0/0	5/21	110/585	94
Total	5265/4587	11733/3667	15526/4730	5115/1577	500/155	39309/14716	33413

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CHAPTER VIII—CIVILIAN—MILITARY MIX

The issue of the roles of military officers and civilian employees and their proper mix or ratio within the defense workforce has been debated often in recent years. Several prominent commissions have studied the issue and determined that there are many opportunities for greater civilianization of non-combat DOD functions. While specific guidance has been promulgated by OSD and the military services about the procedures for determining which defense functions or jobs should be military and which ones should be civilian, the General Accounting Office and DOD internal audit groups have determined that: (1) guidelines for identifying opportunities for civilianizing the DOD workforce have not been followed; (2) there are many opportunities for greater civilianization of the DOD workforce; and, (3) increased civilianization would produce significant savings. This chapter discusses these points and also characterizes the current mix of military and civilian personnel in two acquisition career fields—contracting and Program Management.

BACKGROUND

As J. Ronald Fox noted in his recent article "Training the Wise Buyer," over the past three decades, U.S. military operations have shifted toward high-technology weapons and equipment. As a result of this change, the services have been given an added mission of great complexity—managing the defense acquisition process. This mission has necessitated development of an increasingly larger acquisition workforce—one requiring training, career development, duration of assignments, and length of career radically different from that required for combat.

With the modernization and sophistication of military weapons, an increasingly smaller percentage of the military force is required in combat roles and more and more military personnel are being used in administrative and support tasks, including weapons system acquisition and wholesale logistics support. For example, in the 200,000 person Marine Corps, about 23,000 are engaged in operations which would result in their firing on the enemy. As the relative percentage of the military force engaged in combat or direct combat support functions has declined and the relative percentage of the force engaged in administrative or commercial related tasks has increased, more and more questions have been asked about how the civilian-military mix of the non-combat defense workforce should be determined.

Numerous expert panels and commissions have observed opportunities for greater civilianization of the DOD workforce. For example, in 1955 the Report of the Second Hoover Commission ob-

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served that career civilian managers were being denied adequate opportunities because top positions were filled with military personnel. The Commission recommended that the Department of Defense limit assignments of military personnel to posts in tactical organizations and use civilian personnel increasingly in management and technical positions in support of activities such as procurement. In 1970 the Fitzhugh Commission observed that too often non-combat activities were headed by military officers who had civilian deputies, serving as resident experts. The Fitzhugh Commission recommended that: (1) activities headed by military officers with an immediate civilian subordinate should be surveyed to determine the necessity of military direction; (2) where there was no legitimate requirement for military direction, the position should be civilianized or made available for either a military officer or a civilian; and (3) "dual" staffing should only be permitted in exceptional cases. The Fitzhugh Commission also recommended increased use of civilian Program Managers.

OSD POLICIES AND OVERSIGHT

Responding to these and other recommendations, DOD developed three directives to provide policy guidance as to how defense military and civilian staffing requirements should be determined.

> DOD Directive 1100.4, "Guidance for Manpower Programs," was issued August 20, 1954.
>
> DOD Directive 1100.9, "Military-Civilian Staffing of Management Positions in the Support Activities," was originally issued April 24, 1957 and was reissued by Deputy Secretary of Defense Packard September 8, 1971.
>
> DOD Directive 1400.5, "Statement of Personnel Policy for Civilian Personnel in the Department of Defense," was issued January 16, 1970 and reissued March 21, 1983.

DOD Directive 1100.4 states that civilian personnel will be used in positions "which do not require military incumbents for reasons of law, training, security, discipline, rotation, or combat readiness, which do not require a military background for successful performance of the duties involved, and which do not entail unusual hours not normally associated or compatible with civilian employment." DOD Directive 1100.9 further requires that military personnel be assigned to management positions when:

> required by law, when the position requires skills and knowledge acquired primarily through military training and experience, and when experience in the position is essential to enable the officer personnel to assume responsibilities necessary to maintain combat-related support and proper career development.

Furthermore, this directive notes that civilian personnel should be assigned to management positions "when the specialist skills required are usually found in the civilian economy and continuity of management and experience is essential and can be better provided by civilians."

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DOD components are required to designate positions as military or civilian on manning documents, staffing guides, and career development ladders, and senior positions within headquarters and field support activities are intended to be opened to civilians.

The Assistant Secretary of Defense (Force Management and Personnel), ASD (FM&P), has cognizance over the directives discussed above and is responsible for monitoring service compliance. Officials within this organization appear to have an inverted interpretation of their own directives. For example, while DOD Directive 1400.5 provides a positive requirement for "civilian substitution" for positions not requiring military incumbents, ASD (FM&P) personnel stated that DOD will consider the possibility of staffing a position with a civilian once it is determined that the job does not need a military incumbent. The difference in emphasis between the stated policy and its operational interpretation may appear subtle but is actually quite significant. The onus is placed on the organization to justify having a civilian in lieu of a military whereas current DOD procedures convey the opposite meaning.

Despite the potential conflict between policy and interpretation, ASD (FM&P) posits two primary benefits from civilian substitution: it provides the services the opportunity to enhance readiness by freeing military positions for reallocation to more combat-related missions; and, civilian personnel are, on average, less costly.

OSD officials acknowledged that in the past they have been unable to monitor the compliance of the services in achieving required civilian substitution, but stated that this problem is being addressed. ASD (FM&P) intends for each functional area to take responsibility for assuring compliance. For example, the Under Secretary of Defense (Acquisition) would be responsible for assuring compliance within the acquisition community. Additionally, ASD (FM&P) has directed the services to examine the feasibility of implementing internal control procedures that would facilitate management oversight and enable a comparison of planned versus actual military-civilian substitutions.

SERVICE COMPLIANCE WITH CIVILIAN SUBSTITUTION REQUIREMENTS

According to several recently issued reports, the Military Departments are not complying with Department of Defense policy for converting military positions to civil service positions and to reallocate the military positions to higher priority assignments—a practice known as civilian substitution.

In a 1988 report *(Military Manpower: Lack of Management Oversight Over Civilian Substitution,* NSIAD-88-169, September 6, 1988), the General Accounting Office (GAO) reported that both the Air Force and the Army did not monitor civilian substitution practices or routinely keep records on substitutions made or the disposition of military positions "freed" as a result of substitutions. GAO concluded that both services needed to improve their management oversight and assess their progress in this area.

In another report *(Personnel: Civilian/Military Personnel Mix at the Air Force Weapons Laboratory,* B-231286, November 16, 1988), GAO found that the Air Force was not complying with its own pro-

cedures set forth in Air Force Regulation 26-1, which state that only work which meets criteria established in DOD Directive 1400.5 will be performed by military for reasons of military essentiality. As previously noted, DOD Directive 1400.5 states that it is DOD policy to use "civilian employees in all positions that do not require military incumbents for reasons of law, training, security, discipline, rotation, or combat readiness, or which do not require a military background for successful performance of the duties involved."

In 1989, the Air Force Audit Agency (AFAA) also found that the Air Force was using military manpower in positions with no wartime or military essential requirements. The AFAA report noted that:

> The Air Force system for determining and reporting the military essentiality of positions was not effective. Justifications were not adequate for retaining military positions not having wartime missions, and Air Force procedures and criteria for identifying and justifying military essential positions did not adequately implement DOD policy.

Of the 224 peacetime-only positions sampled by AFAA (from a universe of 47,346 positions in eight Air Force commands), ninety did not meet DOD criteria for military manpower. Based on its statistical sample, AFAA projected that between 15,983 and 22,062 military positions could be civilianized. As a result, AFAA reported that the Air Force spent between $406 and $598 million in additional manpower costs by using military personnel in these positions, and will continue to spend between $210 and $310 million annually in additional manpower costs until these positions are converted to civilian.

CIVILIAN—MILITARY MIX IN CONTRACTING AND PROGRAM MANAGEMENT

The purpose of this section is to describe the current civilian-military mix of personnel in two areas—contracting and Program Management. In conducting this analysis, it was found that comprehensive data was not available, particularly in the Program Management career field. As discussed earlier in this report, the lack of a standard definition of who is included in the acquisition workforce as well as the lack of an effective standard data system that integrates both military and civilian personnel inhibited comprehensive work force analysis of the DOD acquisition workforce.

Comprehensive data was available for civilian contracting personnel from the Defense Manpower Data Center, but the data is considered less accurate for military contracting personnel because the military skill and specialty identifiers are less clearly defined and a match of personnel with the correct job specialty code can result in misleading conclusions. Consequently, data on military contracting personnel was obtained directly from the services.

Comprehensive information on Program Management personnel—both military and civilian—was not readily available. Most Program Managers have an academic background in science or engineering, and many have an operational background in their respective services. However, it is very difficult to identify Program

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Managers by their job classification since they may or may not be in a Program Management job classification or series. For example, for civilians, while the GS-340 occupational series is designated as Program Management, very few civilian Program Managers are classified in this series. Thus, for purposes of this analysis, information for both military and civilian Program Managers was extrapolated largely from manual records or off-line data provided by the services.

Mix of Personnel in Contracting

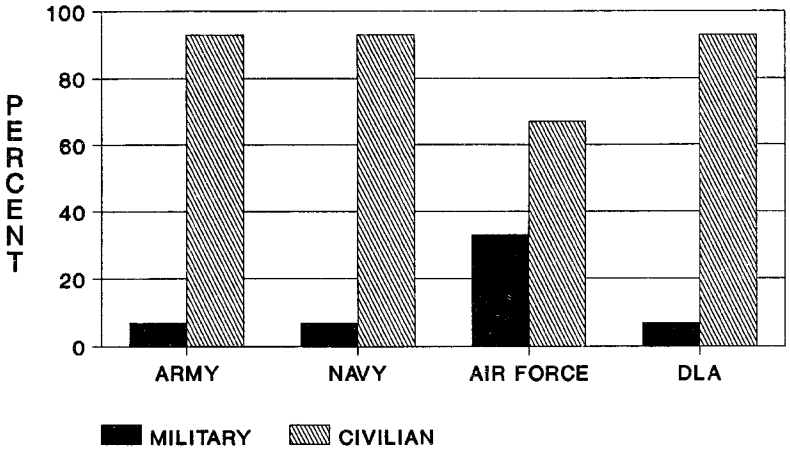
As shown by Exhibit VIII-1, 84 percent of the DOD contracting workforce is civilian. With over seven times the number of military personnel in contracting than the other services, the Air Force has a significantly greater military presence. Additionally, the figure provided for the Air Force include only military officers, and does not include the 1,680 enlisted contracting personnel. The 343 military officers in contracting assigned to the Defense Logistics Agency are from the services—Army (117), Navy (101), and Air Force (125)—but are not included in the figures provided for their respective services. Exhibit VIII-2 graphically portrays the civilian-military mix of contracting personnel (GS-1102 civilians and military contracting specialities) in the Army, Navy, Air Force and Defense Logistics Agency.

EXHIBIT VIII-1—CIVILIAN-MILITARY MIX OF DOD CONTRACTING PERSONNEL

Service	Civilian	Percent	Military	Percent
Army	5589	93	422	7
Navy	5327	93	430	7
Air Force	6298	67	3138	33
DLA	4930	93	343	7
DOD Total	22144	84	4333	16

EXHIBIT VIII-2

CIVILIAN MILITARY MIX
IN CONTRACTING ORGANIZATIONS



Despite the preponderance of civilians in the DOD contracting workforce, the military tend to occupy key management positions.

Mix of Personnel in Program Management

As shown in Exhibit VIII-3, the Program Managers for major DOD programs are almost exclusively military officers. However, Program Managers of non-major programs include a higher percentage of civilians—with 6 percent of these positions in the Navy and 22 percent in the Army held by civilians. (The Air Force was unable to provide data on non-major programs). The civilian representation among Deputy Program Managers for major programs is even higher—with 93 percent in the Army, 48 percent in the Navy, and 35 percent in the Air Force.

EXHIBIT VIII-3—CIVILIAN—MILITARY MIX FOR PROGRAM MANAGERS OF MAJOR PROGRAMS

Service	Military	Percent	Civilian	Percent
Army	27	96	1	4
Navy	35	97	1	3
Air Force	29	97	1	3
DOD Total	91	97	3	3

Program Managers of non-major programs include a higher proportion of civilians; 22 percent in the Army are civilians and 6 percent

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in the Navy. The Air Force was unable to provide data on its Program Managers of non-major programs.

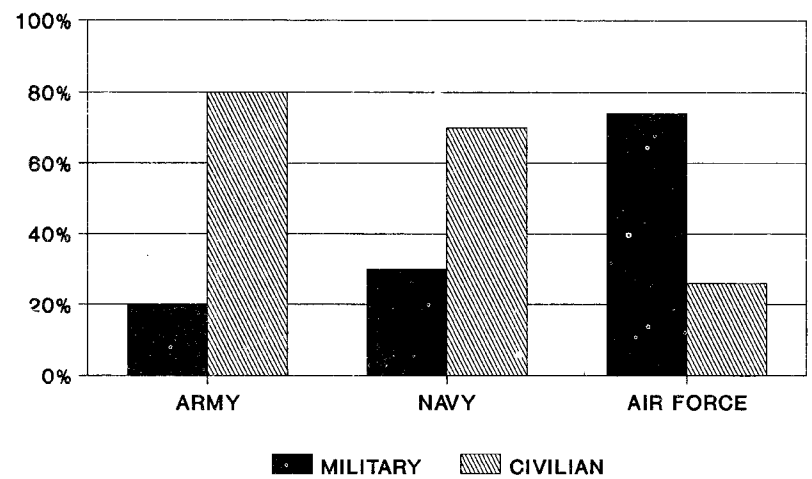
Although Program Manager positions are generally held by military officers, there are significant numbers of civilian personnel who serve in program offices, generally in such areas as contracting, engineering, and logistics. Exhibits VIII-4 and VIII-5 show the civilian-military mix of personnel in Program Management offices in each of the services.

EXHIBIT VIII-4—CIVILIAN-MILITARY MIX OF PERSONNEL IN PROGRAM OFFICES

Service	Military	Percent	Civilian	Percent
Army	336	20	1377	80
Navy	338	30	773	70
Air Force	851	74	292	26
Total	1525	38	2442	62

EXHIBIT VIII-5

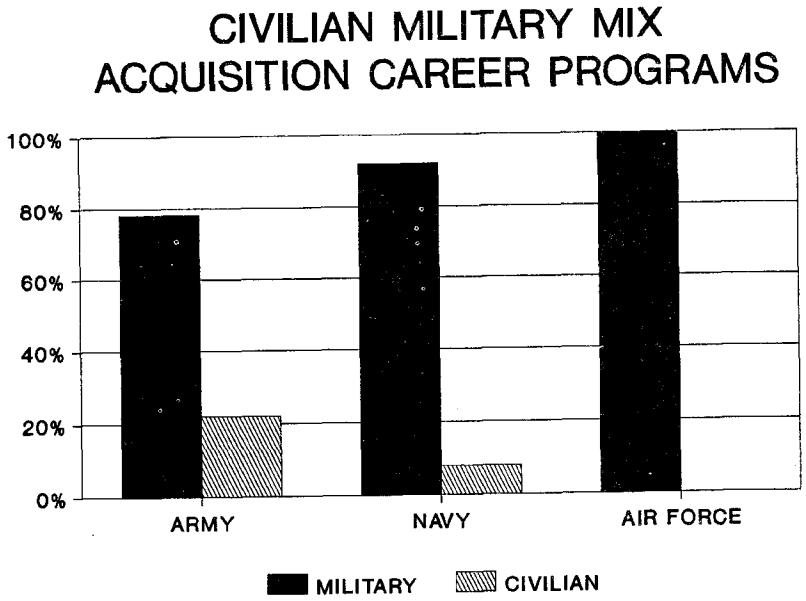
CIVILIAN MILITARY MIX
IN PROGRAM OFFICES



Another indicator of civilian-military mix in the DOD acquisition workforce is the number of personnel in the services' civilian and military Program Management career programs. Exhibit VIII-6 portrays the civilian-military mix in acquisition career programs in each of the military services. In the Army, 62 percent of the "career" Program Management positions are identified as military positions, while 38 percent are earmarked for civilians. In the

Navy, 92 percent of all "career" Program Management positions are in one of the two Navy military career programs. The Air Force, currently has no operational civilian career program for Program Management personnel.

EXHIBIT VIII-6



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CHAPTER IX—THE ISSUE OF COMPENSATION

Adequate compensation of the civilian and military workforce has been a major concern of officials within Government as well as numerous outside independent observers and commissions for many years. The Second Hoover Commission spoke of the need for a system of compensation for both military and civilian managers and technical personnel based on "adequate and equitable rewards." The Hoover Commission's Task Force on Personnel and Civil Service said that compensation in the upper grades, both military and civilian, should be more comparable with the private sector.

In their 1962 classic study, *The Weapons Acquisition Process: An Economic Analysis,* Peck and Scherer observed that since the end of World War II, government employment has grown increasingly unattractive vis-a-vis private industry and concluded:

> The government's ability to recruit and retain the competence it needs is a function of the financial and nonfinancial attractiveness of government employment. . . . What this analysis indicates is that the government does not pay as well as industry for comparable jobs.

The Fitzhugh Commission (*Blue Ribbon Defense Panel*) noted in its 1970 report that there "is a particular urgency in the matter of upgrading personnel involved in contract negotiation and in the system of promotions and rewards for the negotiators." It was later evident to the Grace Commission that there had been no improvement in this situation. While impressed with the talent and experience of military and civilian managers, this Commission noted that salaries and other rewards were not competitive enough to attract or retain the highest caliber personnel, except those motivated by psychological rewards.

Not surprisingly, the Packard Commission (*Blue Ribbon Commission on Defense Management*) concluded that the Department of Defense must be able "to attract and retain the caliber of people necessary for a quality acquisition program." It expressed concern that the Department of Defense was losing its best college graduates and brightest trainees because of higher pay in private industry. The steadily declining financial compensation, particularly of the civil service, coupled with an erosion in the value of public service by their fellow citizens led to what the National Academy of Public Administration has termed, in its report *The Executive Presidency: Federal Management for the 1990s,* a "quiet crisis" in the federal service.

In November 1988, the General Accounting Office reported in the Presidential Transition Report that the government faces a "people problem." Noting that the government's pay structure has broken

down, GAO observed that the Packard Commission and the President's Commissions on Compensation of Career Federal Executives and on Federal Pay had all concluded that the "inadequacy of federal compensation seriously affects the government's ability to attract and retain a high-quality workforce." The GAO noted that while this issue may not be as visible as most, it may be more important because the processes of government are only as good as the people who have to carry them out. Succinctly summarizing the issue, the GAO stated:

> If the quality of the federal workforce is reduced, the quality of government services and programs is reduced. The bottom line in this situation . . . is less effective government services . . . and, therefore, less respect for the government.

The recently issued report of the National Commission on the Public Service or Volcker Commission *(Leadership for America: Rebuilding the Public Service)* observed that to fill key civil service positions with qualified employees, the Government must stay at or close to average pay levels offered by other employers. The Volcker Commission concluded that the salaries of most federal employees are clearly lagging behind the private sector with a nationwide average difference of 22 percent. The Commission noted that the Government:

> will never be able to pay its employees more than the private sector, nor should it try. However, if government is to recruit from among outstanding college graduates, and build a high-performance workforce, it must be willing to pay reasonably competitive salaries . . . if it is to remain a credible career choice, government simply cannot permit the purchasing power of federal pay to decline year after year and the gap between public and private pay for comparable jobs to widen.

CIVILIAN PAY COMPARISONS

Federal Civilian Pay Comparability

Theoretically, the government follows a long-standing concept of "comparability," set forth in the Federal Salary Reform Act of 1962 (P.L. 87-793) which stated that "Federal salary rates shall be comparable with private enterprise salary rates for the same levels of work." This precept was reaffirmed in the Federal Pay Comparability Act of 1970 (P.L. 91-656), which transferred responsibility for adjusting these pay rates from the Congress to the President. It established the concept of the President's Pay Agent being responsible for determining adjustments needed to achieve federal white-collar pay comparability. The Pay Agent consists of the Directors of the Office of Personnel Management (OPM), Office of Management and Budget (OMB), and the Secretary of Labor. The Act also established two other bodies: a three-member Advisory Committee on Federal Pay and the Federal Employees Pay Council. The former is an independent establishment to assist the President by reviewing the Pay Agent's annual reports and making its own findings and recommendations to the President. The latter is comprised of representatives from government employee organizations. To assist in this undertaking, the Department of Labor's Bureau of Labor Statistics since 1970 has conducted an annual Professional, Administrative, Technical and Clerical pay survey of private sector salaries.

General Schedule salaries are supposed to be adjusted annually to keep up with private sector pay. The comparability amounts are determined by the Pay Agent. The President has the option of adjusting the salary rates for the General Schedule employees to make them comparable, or alternatively, to propose an alternative pay plan when such action is appropriate because of national emergency or economic conditions affecting the general welfare. Such plans are to go into effect automatically within 30 days unless Congress disapproves. In reviewing the history of the Act's implementation, it is obvious that comparability has not been sustained. There has been a growing divergence in the pay of General Schedule employees relative to the private sector. The 1970 Act authorized the President to make the first two comparability adjustments effective the first applicable pay period commencing on or after January 1, 1971 and January 1, 1972, with future adjustments made after October 1. The first comparability increase was effected on time and provided for full comparability. This was the only time that full pay comparability has been achieved.

Military Compensation

The other element in the equation is the comparison of military compensation to both private sector counterparts and to the civil service workforce. In conducting such a comparison, it is necessary to recognize the unique character of military pay and its historical development. A fundamental distinction is in the purpose of the military compensation system, which is to attract, retain, and motivate the number and quality of personnel needed to maintain national security. As the General Accounting Office pointed out in its report *(Military Compensation: Key Concepts and Issues,* NSIAD-86-11, January, 1986), an understanding of the "nature of the service expected of military personnel is important for developing a compensation system that is a useful tool for efficiently meeting military personnel requirements." Military service has many unique institutional aspects which have led to a compensation system which partially remunerates people on the basis of particular government need rather than exclusively on the work they perform. A salient characteristic of the military compensation system is its complex, patchwork character, consisting of more than 40 different pays and allowances and many supplemental benefits.

In any comparison of military compensation to civilian pay it is important to recognize that there are three primary elements of military compensation: regular military compensation, special and incentive pays, and supplemental benefits and allowances. Before December 1980, Regular Military Compensation (RMC) was defined as the combination of basic pay, the non-tax value of cash Basic Allowances—Quarters (BAQ) when government housing was not provided, the non-tax value of basic subsistence allowances when gov-

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ernment meals were not furnished, and imputed tax advantages. In December 1980, the definition was changed by Public Law 96–579, 37 U.S.C. 101(25), to include variable housing allowance (VHA) and overseas station allowances. The components of the RMC are now called Basic Military Compensation (BMC). In its report *Military and Federal Civilian Disposable Income Comparisons and Extra Pays Received by Military Personnel* (NSIAD–84–41, May 9, 1984), GAO reported that BMC is "at best, an analytical tool useful to making managerial decisions on general compensation levels." It is not intended to represent actual amounts of cash received by all service members at a particular rank and longevity step.

Special and incentive pay is intended to compensate for unusual risks or hardships and to encourage retention of people in hard-to-fill skills. A military member can receive no more than two incentive pays at one time, but there is no limit on the number of special pays. Jobs qualifying for incentive pay include flight duty, submarine duty, high- and low-pressure chamber duty and aviation career incentive pay. Special pays and continuation bonuses are for service members in traditionally difficult to fill professions such as medical and nuclear-qualified fields.

Beyond the BMC and the special pay and allowances, certain supplemental benefits and allowances, comprising up to 36 percent of the total compensation package, are also available. This includes military retirement after 20 years, full Social Security coverage, unlimited and free health care plus use of commissaries and base or post exchanges. According to the Department of Defense, the commissaries and exchanges charge 25 percent and 23 percent less respectively than their private sector counterparts.

Since World War II, the military compensation system has been studied and evaluated in its entirety or in parts by at least 12 eminent study groups, most of which were formed at the request or direction of the President. The following seven groups or commissions were established for one-time evaluations and reports: Advisory Commission on Service Pay (Hook Commission—1948); Cordiner Committee (1957); Gorham Committee and Randell Panel (1962); President's Special Panel on Federal Salaries (Folsom Panel—1965); President's Commission on an All-Volunteer Armed Force (Gates' Commission—1970); Defense Manpower Commission (1976); President's Commission on Military Compensation (1978); and the Military Manpower Task Force (1982). In addition, Public Law 89–132 of August 21, 1965 required the President to: (1) direct a complete review of the principles and concepts of the military compensation system not later than January 1, 1967 and not less than once very 4 years thereafter; and, (2) to report any proposed changes to Congress. Thus was established the Quadrennial Review of Military Compensation (QRMC), which issued reports in 1967, 1971, 1977, and 1984.

MILITARY AND CIVIL SERVICE COMPENSATION COMPARISON

Two other significant events have impacted military compensation and its relationship to the civil service and the private sector. In 1967, Public Law 90–207, the "Rivers Amendment," was en-

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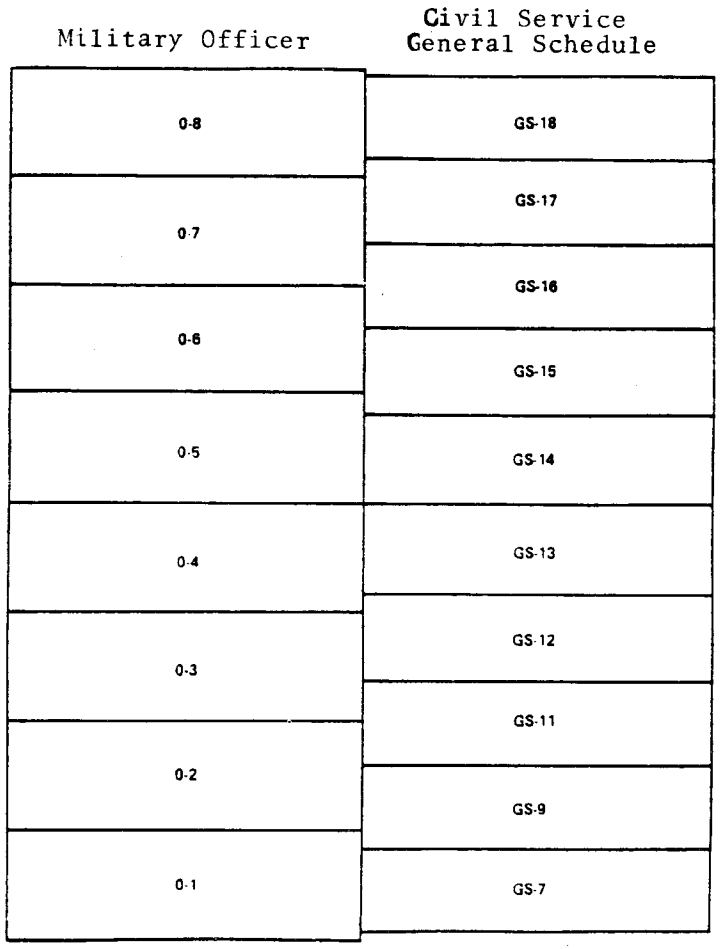
acted—linking military pay increases to those granted to federal civilian white-collar employees. This amendment did not establish comparability between military and federal civilian or private-sector levels of work. It did, however, assure that whenever there were General Schedule pay increases, military pay would increase by an identical percentage. This linkage was meant to serve as a temporary mechanism until military pay standards could be established and a pay adjustment mechanism more applicable to the military system could be developed.

The second major milestone occurred in 1973 when the United States replaced conscription with the All-Volunteer Force, thus forcing the Department of Defense to depend almost entirely upon conditions of the labor marketplace to meet its personnel needs. With the development of the All-Volunteer Force, there was also a de facto decoupling of military and civil service pay. The General Accounting Office reported in January 1986 that although the linking procedure established in 1967 remains, with several modifications, in effect, military pay raises were disconnected on an ad hoc basis from civilian increases in at least 4 of the past 6 years so that the military would receive a larger pay increase.

In any comparison of military and civil service pay, proper comparison levels must be established. In November 1967, the First Quadrennial Review of Military Compensation established work span comparisons, referred to equivalent levels of work, experience, and responsibility. These military—civil service equivalences are depicted in Exhibit IX–1.

EXHIBIT IX-1

MILITARY-CIVIL SERVICE WORK SPAN COMPARISONS



In its report *Military and Federal Civilian Disposable Income Comparisons and Extra Pays Received by Military Personnel,* (May 9, 1984), the GAO concluded there has been a significant erosion of civil service pay relative to their military counterparts. For example, a GS-15, Step 4 has comparable responsibility to an 0-6, yet his pay was equivalent to that of an 0-4 with 16 years of service. A GS-13 with responsibility equivalent to an 0-4 had significantly less income; in fact, his income was slightly less than that of an E-

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9. A GS-7 was no longer equivalent in pay to an 0-1, but rather has income equivalence to less than an E-5.

In 1984 the GAO compared military and civil service compensation in the Washington, D.C. area and found significant disparities. The GAO study made the following assumptions: the standard deduction for state and federal income taxes was taken; the archetype lived in a state that taxes personal income and paid taxes in that state; and special and incentive pay were excluded from the analysis. The resulting GAO report, *Military and Federal Civilian Disposable Income Comparisons and Extra Pay Received by Military Personnel,* drew comparisons between military and civil service personnel, as depicted in Exhibit IX-2.

EXHIBIT IX-2—DISPOSABLE INCOME COMPARISONS MILITARY TO CIVIL SERVICE

Grade/rank	Gross income	Disposable income
0-6	$62,249	$40,849
ES V	$63,800	$36,640
0-4	$46,223	$32,663
GS-14, step 4	$45,405	$28,465
E-3	$14,341	$11,627
GS-5, step 4	$14,707	$10,238

As indicated, a colonel or Navy captain (0-6) had 65.6 percent ($40,845) of disposable income from a gross income of $62,249. By comparison, a member of the Senior Executive Service (ES V) had a disposable income of $36,640, or 57.4 percent of gross income.

The GAO also noted that 62 percent of Navy personnel and 53 percent of Air Force personnel received some extra cash pay which varied based on rank or grade. Exhibit IX-3 shows the percentage of Navy and Air Force officers at the ranks of 0-6 and 0-4 who receive special or incentive pay.

EXHIBIT IX-3—OFFICERS RECEIVING SPECIAL INCENTIVE PAY

[In percent]

Grade	Navy	Air Force
0-6	72	54
0-4	90	85

Of those personnel not receiving some extra cash payments, the GAO found that 93 percent of Navy and 79 percent of Air Force personnel received rent-free government housing. The conclusion was that for roughly equivalent gross income levels, a military member's disposable income can be several percentage points higher than civil servants. As indicated in Exhibit IV-4, the differences were in mid-and upper-grade career personnel.

EXHIBIT IX-4—OFFICERS RECEIVING ADJUSTMENTS TO INCOME

[Grades 0-3 to 0-6]

	Percent receiving extra pay	Percent receiving more than			Percent in rent-free housing but no extra pay
		$1200	$2400	$3600	
Navy	88	85	73	56	83
Air Force	82	65	50	40	67

In light of the above statistics, GAO concluded that military members had significantly higher take home pay than civil servants with roughly equal gross income.

COMPARISON OF CIVIL SERVICE, MILITARY AND PRIVATE SECTOR COMPENSATION

Having compared the differences in compensation between military officers and civil service personnel, both are now compared to the private sector. There are three standard measures used to compare compensation between the three sectors: the Professional, Administrative, Technical, and Clerical (PATC) pay survey of private sector salaries; Employment Cost Index (ECI); and Adjusted Hourly Earnings (AHE). The PATC is an annual survey of the Bureau of Labor Statistics. The ECI is the principal federal economic indicator that measures changes in compensation levels for all occupations in the non-farm economy, including state and local government, but excluding the federal government. It measures the rate of change in employee compensation and includes wages, salaries, and employers' cost for employee benefits, and is very close to the PATC. The Adjusted Hourly Earnings Index covers all private-sector, non-farm production or non-supervisory workers, and is adjusted (in manufacturing only) and for inter-industry employment shifts.

Exhibit IX-5 compares General Schedule compensation with comparable military and private sector pay for Fiscal Years 1972 through 1985. Military compensation only includes Basic Military Compensation (BMC) and does not include other components. As indicated, civil service and military compensations have eroded significantly in recent years when compared to private sector standard measures. The military has fared much better than civil servants during the mid-1980's.

EXHIBIT IX-5—COMPARISONS OF KEY COMPENSATION INDICATORS

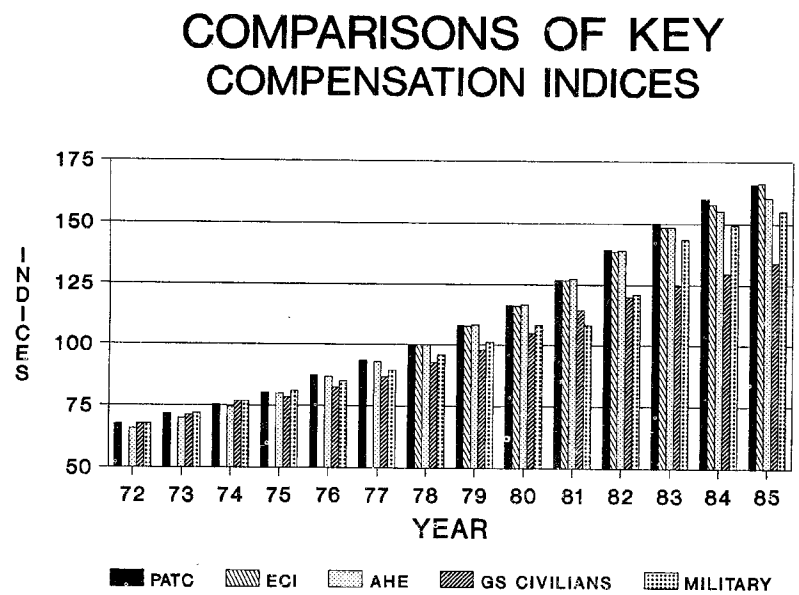
Year	PATC	ECI	AHE	GS civilians	Military
1972	67.60		65.70	67.60	67.60
1973	71.52		69.80	71.07	71.66
1974	75.38		74.46	76.89	76.89
1975	80.21		80.00	78.55	81.10
1976	87.43		86.70	82.47	85.15
1977	93.55		92.90	86.74	89.56
1978	100.00	100.00	100.00	92.83	95.85
1979	107.90	107.76	108.20	97.90	101.09
1980	116.32	115.98	116.80	104.78	108.18
1981	126.90	126.76	127.30	114.32	108.18

EXHIBIT IX-5—COMPARISONS OF KEY COMPENSATION INDICATORS—Continued

Year	PATC	ECI	AHE	GS civilians	Military
1982	139.21	138.43	138.90	119.81	120.84
1983	150.15	148.43	148.50	124.60	143.65
1984	160.18	157.77	155.30	129.58	149.39
1985	165.79	166.27	160.50	134.12	155.37

This data is portrayed graphically in Exhibit IX-6.

EXHIBIT IX-6



The historical record of eroding government pay vis-a-vis the private sector is clear. While both military and civil service pay have lost comparability, the civil service pay situation is particularly troublesome. Exhibit IX-7 shows the annual percentage increase for military and General Schedule pay from 1969 through 1988 as compared to changes in the Consumer Price Index (CPI) and white-collar wages. Note that white-collar wages were not reported in 1987 and 1988. (White-collar wages refers to white-collar mean annual earnings as defined by the U.S. Bureau of Census, Population Division, Income Statistics Branch. For the years 1969-1981, the Census Bureau definition included full-time male and female employees in four broad occupational categories: (1) professional and technical workers; (2) managers and administrative workers; (3) clerical and kindred workers; and, (4) sales workers. For 1982 and subsequent years, the Census Bureau used two new categories:

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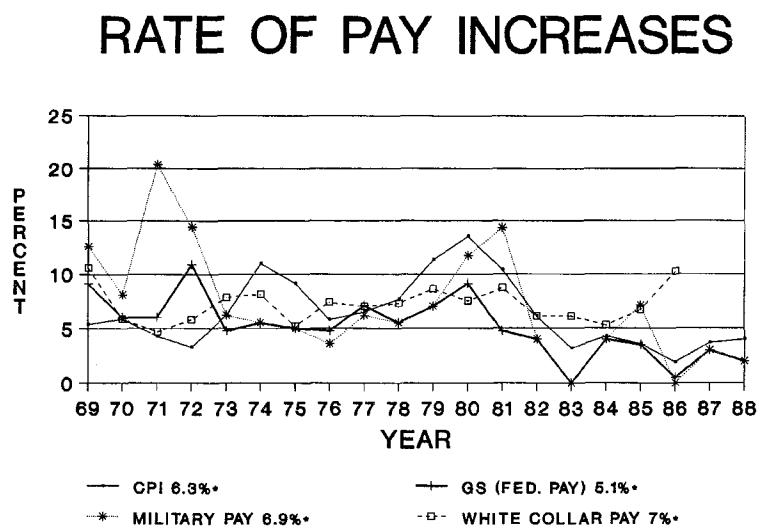
(1) managerial and professional specialty occupations; and, (2) technical, sales and administrative support occupations. These are close but not identical to the earlier categories; thus the data for 1982–1986 are not fully comparable with the 1969–1981 data.)

EXHIBIT IX-7



*Annual Compound Rate of Growth
CPI= Consumer Price Index

When two or more increases occurred in the same year, the percentages were compounded to reflect the true annual increase; for example, the GS pay increases of 5.5 percent and 5.1 percent in 1972 reflected a compounded increase of 10.9 percent. Over this 20 year period, for eight years military pay increased by a greater percentage overall than civil service pay; the percentage increases were identical for 10 years; and, twice (1976–1977), the civil service pay increase was larger than the military. In the 1971–1972 time frame, military pay increases were significant in an effort to make military pay competitive so as to sustain the All Volunteer Force. Military pay increases exceeded the CPI for 4 straight years (1969–1972) as did the civilian (GS) pay, but the military pay fell behind the CPI from 1974 through 1980. The GS pay increase has not matched the CPI annual increase since 1977.

The large military pay increase of 1981 sought to recoup the recent relative deterioration in pay. In that year, officers received a 14.3 percent pay raise while enlisted personnel received an increase ranging from 10 to 17 percent. Over the period from 1969 to 1988, the annual compound rate of growth for military pay exceeded the CPI 6.9 percent to 6.5 percent. Conversely, the GS pay in-

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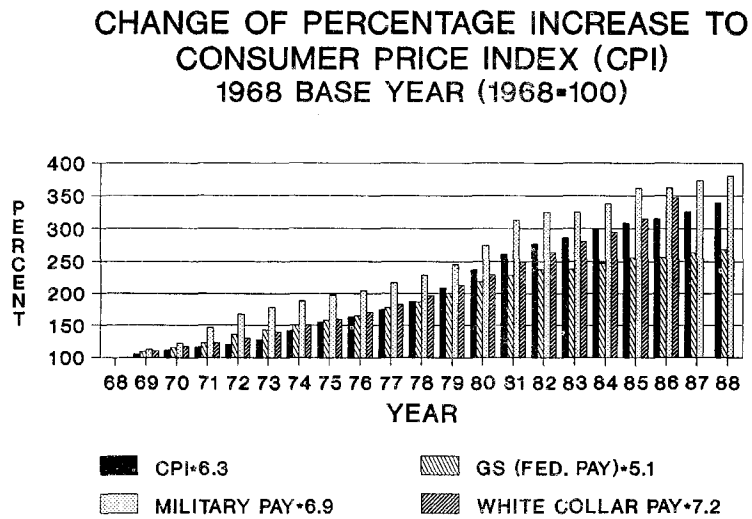
creases after 1977 failed to stay abreast of the CPI. As a result, civil service pay has fallen behind both the CPI and military pay increases with a 20 year rate of 5.1 percent.

Exhibit IX-8 compares the effects of these annual percentage increases for each pay category. Setting 1968 pay scales as the baseline, with an index of 100.0, the cumulative impact of pay raises throughout the period are indicated. For example, for Federal workers to have the same purchasing power in 1988 as in 1968, their wage level index must equal 339.8. Federal workers' actual wage index in 1988 equalled 268.9, indicating a shortfall of 70.9 index points, or 20.9 percent below 1968 purchasing power.

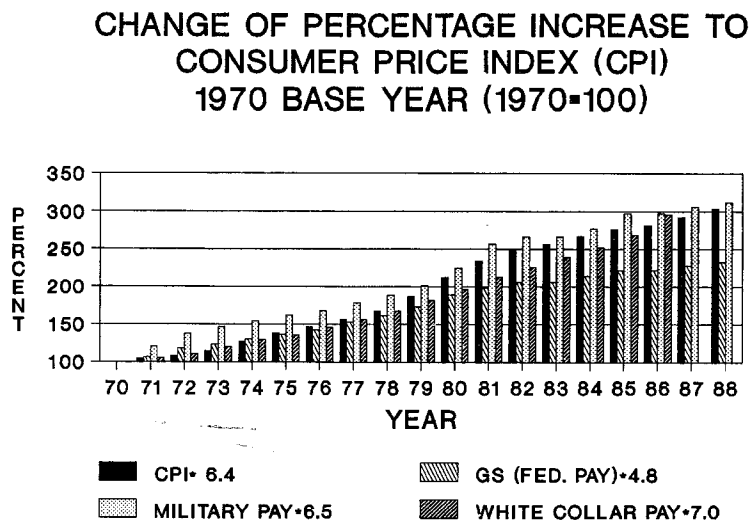
EXHIBIT IX-8



*Annual Compound Rate of Growth (%)
Change in Purchasing Power: GS -20.9%;
Military 12.0%; White Collar 10.2%

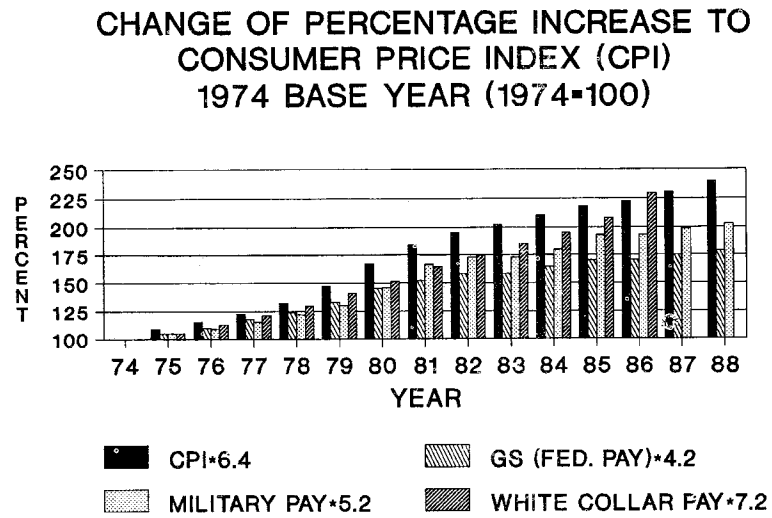
Exhibits IX-9 and IX-10 recompute using baseline years of 1970 and 1974 respectively. Changing the base year substantially affects the change in purchasing power. Using 1970, the year of the Federal Pay Comparability Act, as the base year, civil service pay declined by 23.6 percent between 1970 and 1988 and military pay increased only by 2.7 percent. Using 1974 as the base year, a time when Federal pay comparability and military funding for the All Volunteer Force should have been well established, the evidence indicates an even greater decline in purchasing power: 25.4 percent for civil servants, and 15.5 percent for military.

EXHIBIT IX-9



*Annual Compound Rate of Growth (%)
Change in Purchasing Power: GS -23.6%;
Military 2.7%; White Collar 5.0%

EXHIBIT IX-10



*Annual Compound Rate of Growth (%)
Change in Purchasing Power: GS -25.4%;
Military -15.5%; White Collar 3.2%

Exhibit IX-11 portrays the negative growth in pay of military and civil service personnel between 1972 and 1985 as measured by the annual Professional, Administrative, Technical and Clerical (PATC) pay survey, with 1972 as the base year. As indicated, both military and civil service pay declined—with a far greater decline in the latter.

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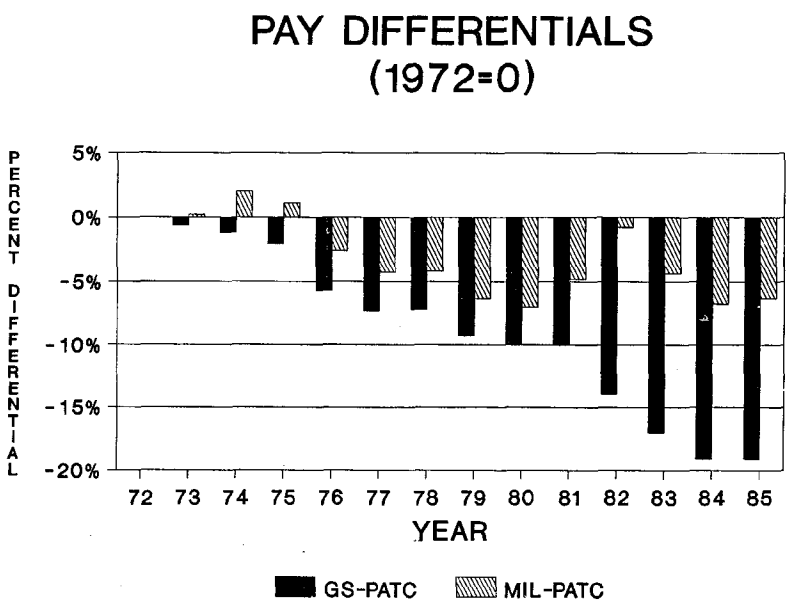
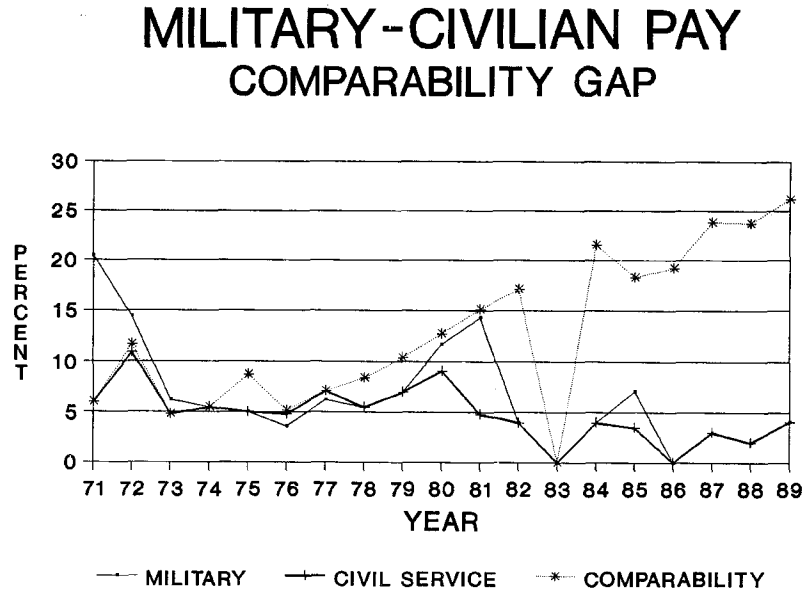
EXHIBIT IX-11



As indicated by Exhibit IX-12, there has been a growing chasm between pay in the public and private sectors. The comparability percentage represents the pay increase recommended by the President's Pay Agent as necessary in each year for Federal pay to keep pace with the private sector. The military and civil service pay percentages shown reflect the actual increases. In every year since 1977, the salary adjustments for General Schedule employees have been at lesser amounts than required to achieve comparability. Although 1983 reflects a zero increase, 1983 pay increases was moved from October (the beginning of the fiscal year) to January 1984. Even after structural and procedural adjustments undertaken in the comparability process in 1984, the public/private sector pay gap has remained above 20 percent overall. Three recent GAO reports effectively document these disparities: *Federal Workforce: Pay, Recruitment, and Retention of Federal Employees*, (No. B-214553, February 1987); *Federal Pay: Changes to the Methods of Comparing Federal and Private Sector Salaries*, (B-226282, May 1987); and, *Managing Human Resources: Greater OPM Leadership Needed to Address Critical Challenges*, (B-211358, January 1989). Each reported that the public/private sector pay gap increased between 1985 and 1986 from 19.2 percent to 23.8 percent overall.

EXHIBIT IX-12



The dissolution of pay comparability becomes more deleterious at the micro level where particular disciplines and professions have witnessed a disproportionate decline in pay. Therefore, this section addresses pay comparability of Program Management (represented by engineering) and contracting personnel in both the private sector and government. In the case of military officers, the comparison was limited to contracting, but would be equally applicable in engineering at the comparable grade levels as neither function receives professional pay similar to that provided to medical doctors.

Program Management Personnel

Program Management personnel come from a multitude of functional backgrounds; therefore, it is difficult to objectively quantify the specific differences in pay between the public and private sectors. Since most Program Management personnel have a technical or engineering background, a comparison of the differences in pay between government engineers and their private sector counterparts should be applicable to the general field of Program Management.

The government has historically had difficulty attracting engineers. To address this problem, the Office of Personnel Management has authorized special salary schedules as well as special hiring authority for engineers. This authority is provided under 5 U.S.C. 5303 which allows for higher minimum rates (not to exceed the maximum salary rate prescribed in the General Schedule for

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that grade or level (step 10)), and a corresponding new salary range to be established for positions or occupations under certain conditions. These conditions include a finding that the salary rates in private industry are so substantially above the salary rates of the statutory pay schedules as to significantly handicap the Government's recruitment or retention of well-qualified persons.

That authority has been increasingly utilized as the Government's difficulty in hiring and retaining engineers has increased over time, as manifested in the expansion of special salary rates. In March 1975, special higher salary ranges were authorized for professional engineers, accountants, and auditors at the entry grades of GS-5 and GS-7. By March 1985, these special salary rates were authorized not only for professional engineers at the GS-5 and GS-7 level but also for engineers at the GS-9 and GS-11 level. By 1987, the special salary rates were extended to the GS-12 level plus petroleum engineers through the GS-13 grade.

The need for special pay rates is obvious if one looks at a comparison of private sector engineers with General Schedule employees of comparable grade level, without factoring in any special pay rates.

Exhibit IX-13 shows the difference in pay in the years between 1970 and 1988, using the General Schedule Step 1 as the base salary for the civilian workforce. Percentage changes are all in favor of the private sector. Also, this Exhibit shows the step level increase an individual in the civil service would require to match the salary of those in private industry. For example, in 1970, a GS-9, Step 1 received $9,881 annually; the private sector counterpart received $12,350, a difference in salary of 25 percent. The Government engineer would have to be at GS-9, Step 9 to have a roughly equivalent salary to the private sector counterpart. At the GS-5 and GS-7 grade levels in 1970, the pay differences to the private sector were 56 and 38 percent respectively. The pay differential was so large that there was no step equivalent at either grade. It is important to note that by 1985, there was no civil service step equivalent to the comparable engineer in the private sector.

EXHIBIT IX-13—COMPARISON OF ENGINEER PAY 1970-1988

[Private sector to General Schedule, step 1]

	1970	1975	1980	1985	1987	1988
GS-5	$6,548	$8,500	$11,243	$14,390	$14,822	$15,118
Private sector	$10,209	$12,917	$19,411	$27,405	$28,958	$29,222
Difference percent	56	52	73	90	95	93
Step equivalent	(1)	(1)	(1)	(1)	(1)	(1)
GS-7	$8,098	$10,520	$13,925	$17,824	$18,358	$18,726
Private sector	$11,077	$14,197	$21,285	$30,275	$32,295	$32,997
Difference percent	38	35	53	70	80	76
Step equivalent	(1)	(1)	(1)	(1)	(1)	(1)
GS-9	$9,881	$12,841	$17,036	$21,804	$22,458	$22,907
Private sector	$12,350	$16,330	$24,160	$34,348	$37,235	$38,244
Difference percent	25	27	42	58	66	67
Step equivalent	9	9	(1)	(1)	(1)	(1)
GS-11	$11,905	$15,481	$20,611	$26,381	$27,172	$27,716
Private sector	$14,695	$19,443	$28,486	$40,991	$44,360	$45,680
Difference percent	23	26	38	55	63	65

EXHIBIT IX-13—COMPARISON OF ENGINEER PAY 1970-1988—Continued

[Private sector to General Schedule, step 1]

	1970	1975	1980	1985	1987	1988
Step equivalent	8	9	(1)	(1)	(1)	(1)
GS-12	$14,192	$18,463	$24,703	$31,619	$32,567	$33,218
Private sector	$17,004	$22,427	$33,141	$48,366	$52,698	$54,817
Difference percent	20	21	34	53	62	65
Step equivalent	7	8	(1)	(1)	(1)	(1)
GS-13	$16,760	$21,816	$29,375	$37,559	$38,727	$39,501
Private sector	$19,471	$26,109	$38,259	$56,136	$61,807	$64,993
Difference percent	16	20	30	49	60	65
Step equivalent	6	7	(1)	(1)	(1)	(1)
GS-14	$19,643	$25,581	$34,713	$44,430	$45,763	$46,679
Private sector	$22,328	$29,101	$43,242	$65,641	$71,475	$74,326
Difference percent	14	14	25	48	56	59
Step equivalent	5	5	9	(1)	(1)	(1)
GS-15	$22,885	$29,818	$40,832	$52,262	$53,830	$54,907
Private sector	$25,393	$34,114	$50,079	$76,205	$81,060	$85,725
Difference percent	11	14	23	46	51	56
Step equivalent	5	5	8	(1)	(1)	(1)

[1] None.

In a comparison of General Schedule Step 1 salaries for GS-5 through GS-15 personnel, one finds the greatest disparity in 1970 and 1975 at the entry and journeyman levels (GS-5 through GS-12). At the higher grades (GS-13 through GS-15) there is a close confluence between General Schedule and private sector engineers in 1975. During the 1980s, the situation deteriorated significantly, with the pay gap at all grade levels sharply increasing.

The pay situation is somewhat ameliorated in the special pay rates. As the civil service salary position relative to the private sector is viewed over time, the special pay rates are extended to higher level civil service grades. Exhibit IX-14 indicates how the special pay rates for engineers have been applied by the Office of Personnel management (OPM) since 1970. This Exhibit indicates the General Schedule step equivalent in salary authorized for engineers.

EXHIBIT IX-14—SPECIAL PAY RATES FOR ENGINEERS

[Step number]

	1970	1975	1980	1985	1987	1988
GS-5	10	10	10	10	10	10
GS-7	10	5	10	10	10	10
GS-9	7	.....	8	6/7	8/9	9/10
GS-11	5	.....	4	2/3	4/5	4/5
GS-12	2	2	.....	.....	1/2	1/2

As shown in Exhibit IX-15, while special pay has prevented the huge disparity in salaries that would have occurred under the General Schedule alone, the rate of special pay extension in the 1980s failed to keep pace with the rate of divergence in pay, especially at the higher pay grades. For example, in 1970 special salary equiva-

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lent steps were authorized by OPM for GS-5 through GS-12 grade levels. A GS-9 could start at the Step 7 level. In 1975, there was no special pay rate for the GS-9, but by 1980 it was reinstated at the Step 8 level. Throughout the period, the GS-5 started at Step 10.

EXHIBIT IX-15—ENGINEERS COMPARABILITY PAY

[GS-Special pay rates]

	1970	1975	1980	1985	1987	1988
GS-5	$8,510	$11,607	$14,618	$18,710	$19,268	$19,654
Private sector	$10,209	$12,917	$19,411	$27,405	$28,958	$29,222
Difference percent	20	11	33	46	50	49
GS-7	$10,528	$12,518	$18,101	$23,170	$23,866	$24,342
Private sector	$11,077	$14,197	$21,285	$30,275	$32,295	$32,997
Difference percent	5	13	18	31	35	36
GS-9	$11,855	(1)	$21,011	$25,980	$28,347	$29,199
Private sector	$12,350		$24,160	$34,348	$37,235	$38,244
Difference percent	4		15	32	31	31
GS-11	$13,493	(1)	$22,672	$28,039	$30,469	$31,383
Private sector	$14,695		$28,486	$40,991	$44,360	$45,680
Difference percent	9		26	46	45	46
GS-12	$14,665				$32,673	$33,979
Private sector	$17,004	(1)	(1)	(1)	$52,698	$54,817
Difference percent	16				61	61

[1] None.

The last measure of the accelerating divergence in pay is the percentage increase in pay of private sector engineers over civil service counterparts, which is depicted in Exhibit IX-16.

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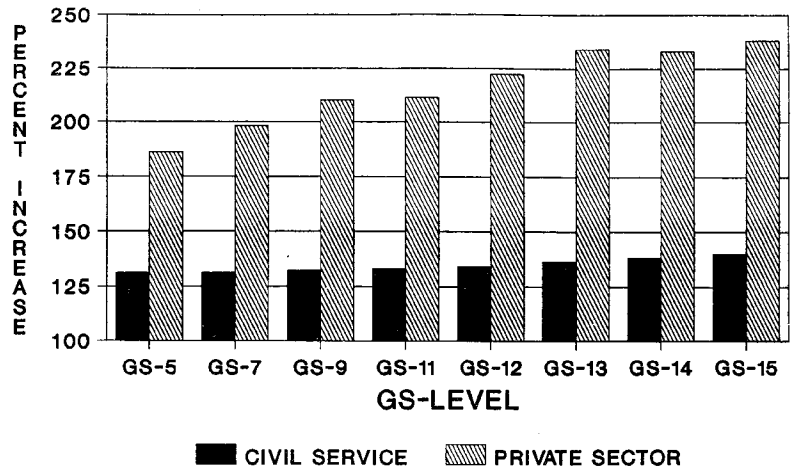
EXHIBIT IX-16

PERCENT INCREASE IN PAY 1970-1988
ENGINEERS

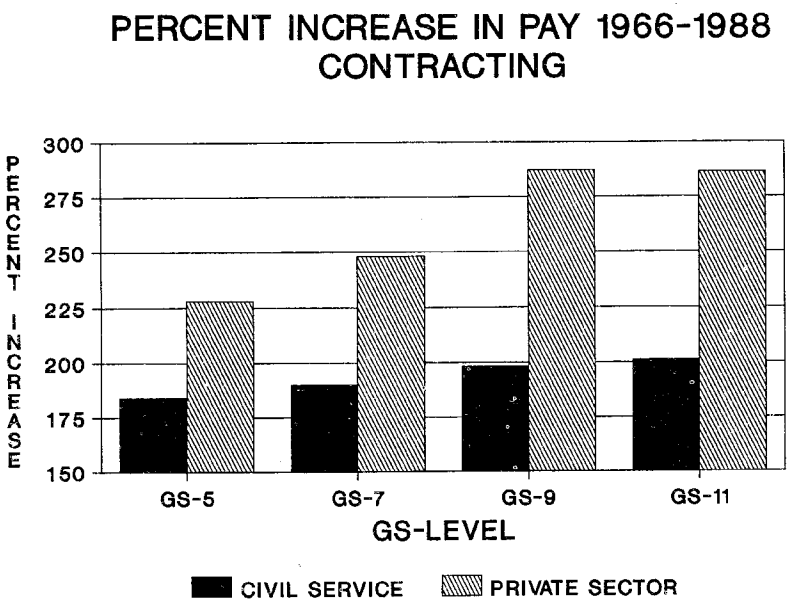


Contracting Personnel

An analysis of contracting personnel can be easily distinguished from that of Program Management because contracting constitutes an homogeneous group that facilitates comparisons of like career fields. Government contracting personnel, like government engineers, do not have pay comparability with their counterparts in the private sector. While the engineers' disparity appears worse in absolute terms, the situation of engineers at the lower grades is ameliorated by special pay rates which are unavailable to contracting personnel.

A comparison of the growth in pay of contracting civil servants over the last 20 years relative to that of their counterparts in the private sector indicates a growing pay gap, as delineated by Exhibit IX-17.

EXHIBIT IX-17



Similarly, a comparison of pay differences between contracting civil servants (GS-1102 series) and their private sector counterparts in medium and large size firms from 1966 through 1988 confirms the growing pay gap. Exhibit IX-18 provides such a comparison for selected years during this period. The data presented is for the only four grade levels for which data was available. The analysis specifies the step interval in the General Schedule which is roughly equivalent to private sector pay. For example, in 1970, a GS-5, Step 1 received $6,548 annually, compared $8,512 by his or her counterpart in private industry. Based on this 30 percent pay differential, the contracting GS-5 would have to be at Step 10 to have a comparable salary.

EXHIBIT IX-18—COMPARISON OF CONTRACTING PERSONNEL PAY, 1966-1988

[Private sector to General Schedule, step 1]

	1966	1970	1975	1980	1985	1987	1988
GS-5	$5,331	$6,548	$8,500	$11,243	$14,390	$14,822	$15,118
Private sector	$6,720	$8,512	$10,861	$14,861	$20,896	$21,779	$22,071
Difference percent	26	30	28	32	45	47	46
Equivalent step	9	10	9	(1)	(1)	(1)	(1)
GS-7	$6,451	$8,098	$10,520	$13,925	$17,824	$18,358	$18,726
Private sector	$8,004	$9,759	$13,337	$18,467	$25,606	$27,184	$27,863
Difference percent	24	21	27	33	44	48	49
Equivalent step	8	7	9	(1)	(1)	(1)	(1)
GS-9	$7,696	$9,881	$12,841	$17,036	$21,804	$22,458	$22,907

EXHIBIT IX-18—COMPARISON OF CONTRACTING PERSONNEL PAY, 1966-1988—Continued

[Private sector to General Schedule, step 1]

	1966	1970	1975	1980	1985	1987	1988
Private sector	$9,324	$11,665	$15,995	$22,904	$31,774	$34,818	$36,040
Difference percent	21	18	25	34	46	55	57
Equivalent step	7	6	8	(1)	(1)	(1)	(1)
GS-11	$9,221	$11,905	$15,481	$20,611	$26,381	$27,172	$27,715
Private sector	$11,304	$13,895	$18,943	$27,777	$39,036	$42,772	$43,651
Difference percent	23	17	22	35	49	57	57
Equivalent step	8	6	8	(1)	(1)	(1)	(1)

[1] None.

Like the engineers, double digit percentage differences exist at all grade levels, with the greatest difference initially at the entry level. However, by 1980 pay differentials at the journeyman level were more significant. At the same time, step equivalents within the same grade were no longer operative at any grade level.

Exhibit IX-19, which compares the differences in terms of average General Schedule pay at the same grade levels vice the Step 1 pay, indicates similar differences that are only less sharply drawn.

EXHIBIT IX-19—COMPARISON OF CONTRACTING PERSONNEL PAY 1975-1988

[Private sector to General Schedule Average]

	1975	1980	1985	1987	1988
GS-5	$9,649	$12,744	$16,289	$16,783	$17,181
Private sector	$10,861	$14,861	$20,896	$21,779	$22,071
Difference percent	13	17	28	30	28
GS-7	$11,809	$15,729	$20,227	$20,817	$21,194
Private sector	$13,337	$18,467	$25,606	$27,184	$27,863
Difference percent	13	17	27	31	31
GS-9	$14,370	$19,110	$24,508	$25,289	$25,751
Private sector	$15,995	$22,904	$31,774	$34,818	$36,040
Difference percent	11	20	30	38	40
GS-11	$17,447	$23,331	$29,772	$30,811	$31,403
Private sector	$18,943	$27,777	$39,306	$42,772	$43,651
Difference percent	9	19	32	39	39

Another measure of the pay disparity in contracting is in comparing the starting salaries of college graduates with appropriate academic disciplines to the starting (GS-5 or GS-7, Step 1) civil service salary for GS-1102 personnel, as shown in Exhibit IX-20.

EXHIBIT IX-20

Civil Service		Private sector		Percent difference
GS-Step 1	Salary	Degree/Major	Salary	
1980				
5	$11,243	BA:		
		Accounting	$15,516	+38
		Business	$14,616	+30

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EXHIBIT IX-20—Continued

Civil Service		Private sector		Percent difference
GS-Step 1	Salary	Degree/Major	Salary	
		Marketing	$13,740	+22
		MA:		
7	$13,925	Accounting	$18,204	+31
		Business	$21,540	+55
		Marketing	$21,528	+55
		1985		
		BA:		
5	$14,390	Accounting	$20,364	+42
		Business	$19,632	+36
		Marketing	$18,576	+29
		MA:		
7	$17,824	Accounting	$24,060	+35
		Business	$28,584	+60
		Marketing	$29,448	+65

As indicated, there are gross pay disparities, especially at the graduate degree level, which have only worsened over time.

Pay is an important factor in hiring and retaining a quality workforce. In high cost-of-living areas, the government has had difficulty, especially at entry grades, in hiring and retaining contracting civilians. For example, the Directorate of Contracting and Manufacturing at Air Force Systems Command, Space Division, in Los Angeles, California reported in August 1988 that it had experienced a turnover of 61 percent of its contracting civilians in the last three years. As a result, Space Division has a huge body of inexperienced contracting specialists. The average contracting experience level of contracting officers is only 2.6 years. Space Division attributes this situation to significant pay disparities and the high cost of living in the Los Angeles area.

In its 1989 report on personnel attrition in the civil service white-collar occupations *(Who Is Leaving the Federal Government?)*, the Merit Systems Protection Board analyzed the various types of separation from the Civil Service in 1987. It found that there was an overall 9 percent separation rate. Furthermore, 58 percent of all separations were resignations, 25 percent were voluntary retirements and 5 percent were agency initiated separations.

There are many reasons for leaving government service and there are a number of variables: age, length of service, occupation, economic conditions both in general and occupation specific. As the Merit Systems Protection Board report observed:

> Dynamics of Federal employee turnover are complex and multi-faceted . . . conclusion about what 'causes' turnover should be drawn very carefully, since there may be indirect relationships among several different factors . . . Overall, however, there are some major public policy implications regarding the current 'tools' available to public managers in terms of current civil service rules and regulations. The rigidities of the current white-collar compensation system . . . provide Federal managers with few options for attempting to retain—on a selected basis—high performing employees who are leaving for compensation related reasons.

Military, Civil Service, Private Sector Contracting Pay Analysis

A comparison of civil service, military and private sector contracting pay shows that both military officers and GS employees are not compensated adequately compared to the private sector as can be seen in Exhibit IX-21

EXHIBIT IX-21—COMPARISON OF GENERAL SCHEDULE, MILITARY AND PRIVATE SECTOR PAY (CONTRACTING PERSONNEL)

Category	1970	1975	1980	1985	1987	1988
GS-7	$8,098	$10,520	$13,925	$17,824	$18,358	$18,726
O-1	$7,307	$10,009	$13,363	$19,421	$20,601	$21,013
Private sector	$9,759	$13,337	$18,467	$25,606	$27,184	$27,863
GS shortfall	21%	27%	33%	44%	48%	46%
Mil shortfall	34%	33%	38%	32%	32%	33%
GS-9	$9,881	$12,841	$17,036	$21,804	$22,458	$22,907
O-2	$9,709	$11,597	$16,575	$23,730	$24,982	$25,484
Private sector	$11,665	$15,995	$22,904	$31,774	$34,818	$36,040
GS shortfall	18%	25%	34%	46%	55%	57%
Mil shortfall	27%	38%	38%	34%	39%	41%
GS-11	$11,905	$15,481	$20,611	$26,381	$27,172	$27,716
O-3	$12,655	$16,381	$21,831	$31,262	$33,143	$33,808
Private sector	$13,895	$18,943	$27,777	$39,306	$42,772	$43,651
GS shortfall	17%	22%	35%	49%	57%	57%
Mil shortfall	16%	16%	27%	26%	29%	29%

These trends are graphically represented in Exhibits IX-22 (GS-7/O-1), IX-23 (GS-9/O-2), and IX-24 (GS-11/O-3). In reporting this data, General Schedule Step 1 salaries were used, as many contracting personnel at these grades are on training or intern programs where they progress annually to the next higher grade. 0-1 (second lieutenant) salary was computed at less than two years service, O-2 (first lieutenant) at two or more years service, and O-3 (captain) at 4 or more years service. Because civil servants on training programs would normally progress at a faster rate than their military contemporary, an individual GS salary at these grade levels would tend to increase at a faster rate. On the other hand, comparisons should be made of comparable pay for the same level of responsibility and work.

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EXHIBIT IX-22

CONTRACTING PERSONNEL SALARY COMPARISON

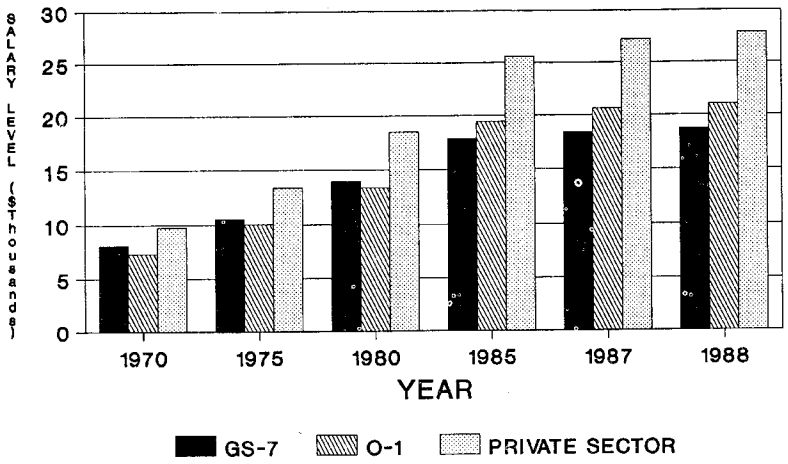

EXHIBIT IX-23

CONTRACTING PERSONNEL SALARY COMPARISON

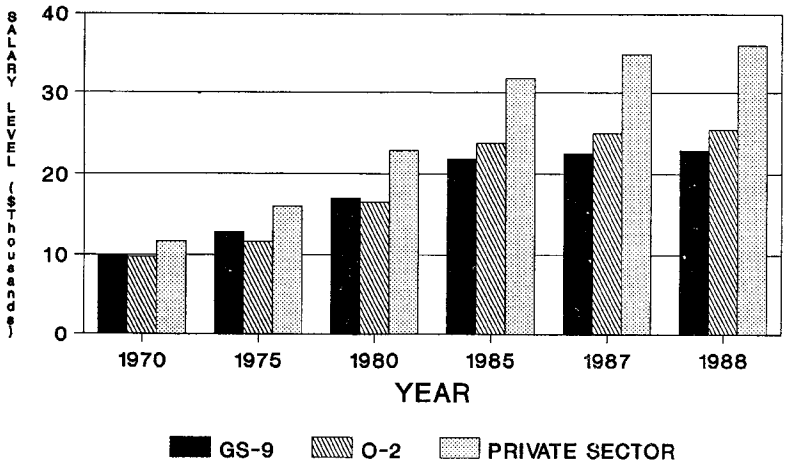

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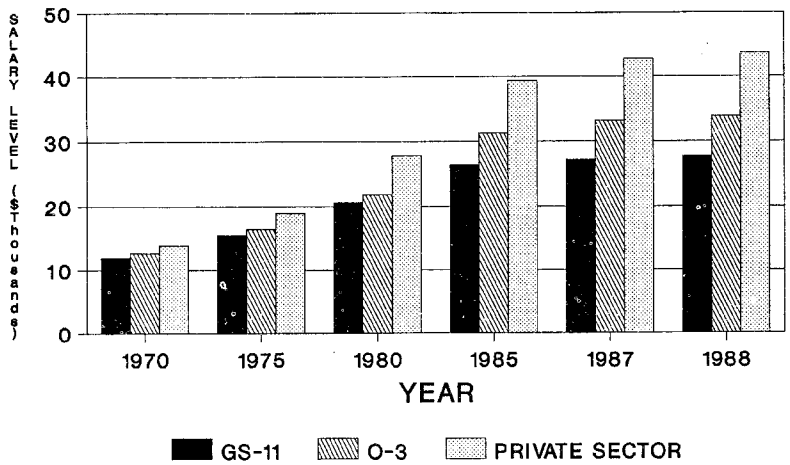
EXHIBIT IX-24

CONTRACTING PERSONNEL SALARY COMPARISON



At the entry or lower ranks and grades, civil servants fared relatively better than officers vis-a-vis the private sector through 1980. However, the situation changed significantly in the 1980s and by 1988 a very wide gap had developed. At the higher grades, military personnel fared much better in pay than did their civil service counterparts vis-a-vis private contracting personnel.

Exhibits IX-25, 26, and 27 show the negative growth of both military and civil service pay compared to the private sector for GS-7, GS-9, and GS-11 grade levels respectively. The percentages shown represent how much less the civil service pay and military pay is compared to one data point—the pay of the private sector counterpart.

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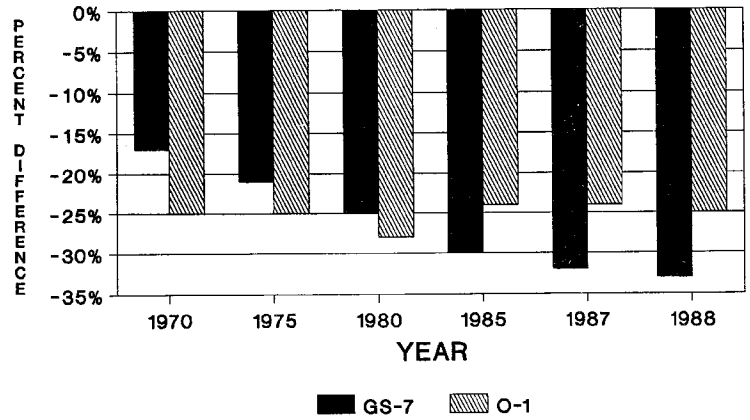
EXHIBIT IX-25

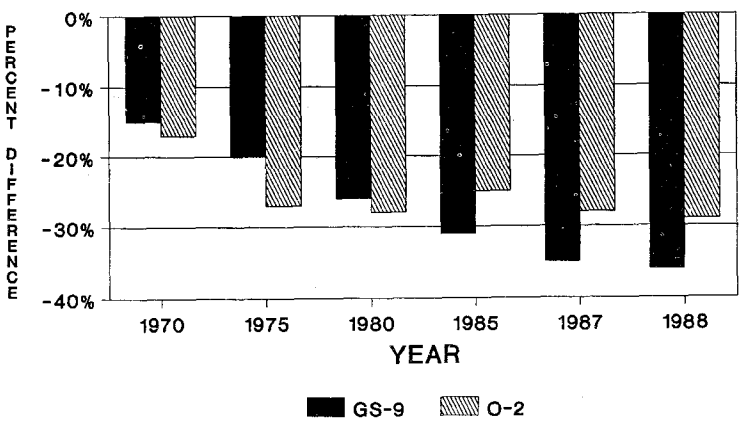
CONTRACTING PERSONNEL SALARIES PAY DIFFERENCE



Comparison to Private Sector
(Baseline=0)

EXHIBIT IX-26

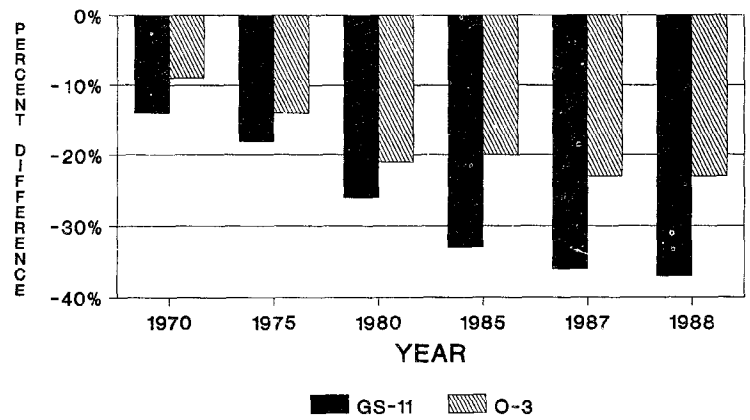
CONTRACTING PERSONNEL SALARIES
PAY DIFFERENCE



Comparison to Private Sector
(Baseline=0)

EXHIBIT IX-27

CONTRACTING PERSONNEL SALARIES
PAY DIFFERENCE



Comparison to Private Sector
(Baseline=0)

Air Force Study of Contracting Personnel Compensation. A 1987–1988 Air Force study analyzed various aspects of the civilian contracting personnel compensation issue, including job entry and retention. The Air Force study attempted to ascertain the initial appeal of private sector contracting employment rather than federal employment and identified factors that sustained the initial choice of jobs. Private sector contracting personnel were asked why they originally chose to work for their present employer and what factors influenced them to remain with the company. They were also asked if they had considered Federal employment at the time they accepted their current position. These personnel rank ordered fourteen factors considered important when evaluating a job opportunity. Exhibit IX-28 indicates the rank order of each factor.

EXHIBIT IX-28—FACTORS CONSIDERED DURING EVALUATION OF AN EMPLOYMENT OPPORTUNITY

Factor	Ranking
The work itself, e.g., challenging, interesting	1
Salary	2
Personal/professional growth opportunities	3
Autonomy/responsibility	4
Promotion opportunities	5
Working conditions/environment	6
Other compensation, e.g., benefits, bonuses	7
Job security	8
Pension/retirement plan	9

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EXHIBIT IX-28--FACTORS CONSIDERED DURING EVALUATION OF AN EMPLOYMENT OPPORTUNITY—Continued

Factor	Ranking
Job prestige	10
Educational/training opportunities	11
Flexible working hours	12
Travel opportunities	13
Daycare facilities	14

The work itself was considered most important, followed by salary. Thirty-six percent of the private sector contracting employees considered working for the Federal government at the time they accepted their present job. Of 14 separate factors, "growth opportunity" was the top factor at the entry and managerial levels with salary the fifth most important factor. For journeymen level employees, salary was the most important factor. Seventy-five percent of entry level personnel indicated their responses were based on perceptions of the Federal government. However, 56 percent of journeymen and 62 percent of managers said their comparisons were fact-based.

Contracts employees were asked what they liked and disliked about their present job to determine why they have remained with their current employer. Out of 16 factors liked, the most important satisfier was challenging work with salary third. Conversely, in ranking factors that employees disliked about their jobs, promotion opportunity was the most important and salary was fifth.

Air Force civilian contracts employees ranked job security, challenging work, autonomy/responsibility, and their pension plan among the top factors they liked. Both job security and pension plans were among the top four factors about their job disliked by private sector employees. The disparity in salary is manifested by private sector employees ranking it as their third most liked factor and Air Force employees ranked as their most disliked factor.

Air Force personnel dissatisfaction was translated into turnover. From 1983 to 1987 approximately 12 percent of GS-1102 personnel terminated their employment to accept a job with private industry. The overall separation percentage and the relative percentages accepting jobs in private industry are shown in Exhibit IX-29.

EXHIBIT IX-29—AIR FORCE CONTRACTING PERSONNEL SEPARATIONS

[In percent]

Level	Entry	Journeyman	Management
Separating from Air Force	17	67	16
Job with private industry	24	10	10

The Air Force study discussed above—*A Comparison of Civilian Contracting Personnel with Their Private Sector Counterparts*—also compared the compensation package of government contracting civilians to that of contracting personnel in the private sector. The elements of compensation evaluated included salary, insurance, retirement benefits, pension plan, expense accounts, and intangible compensation such as environment. Comparisons were made of two private sector contracting groups: those employed by aerospace companies selling primarily to the Air Force; and those employed by large industrial firms (500 top firms on the Fortune 500 list of April 27, 1987). The study was limited to eight cities throughout the United States, most of which were identified as high cost-of-living areas.

As depicted by Exhibit IX-30, private sector contracting personnel had higher salaries than Air Force employees: approximately $10,000 more per year at the entry and journeyman levels and $5500 more at the managerial level.

EXHIBIT IX-30—SALARY COMPARISONS OF CONTRACTING PERSONNEL

[1987-1988]

Level	Private sector		Air Force	
	Mean salary	Median salary	Mean salary	Median salary
Entry	$29,747	$30,000	$19,518	$18,726
Journeyman	$43,279	$40,000	$31,235	$31,874
Manager	$53,263	$50,500	$47,643	$44,769

The study found that, typically, private sector employees received higher salaries except in Dayton, Ohio where Air Force employees consistently received higher pay. Forty-two percent of the private companies surveyed indicated that salary levels for their contracts personnel were established on a local job market basis. Thirty-three percent stated salary levels were established according to a national measure. The remainder indicated some other methodology was used; for example, twelve percent conducted surveys of both national and local competitors in order to establish comparable salaries. Ninety-seven percent of the companies indicated that their employees did not receive a cost-of-living (COLA) adjustment. Ninety-three percent of the companies did not provide a geographic location COLA.

In other areas of tangible compensation, the private sector often proved far more generous than the Government. Sixty-eight percent of the companies reimbursed all reasonable costs incurred by employees during business-related travel. Twenty-three percent reimbursed travel costs, but limited reimbursement on food and lodging to a maximum amount per day as does the Government under the Joint Travel Regulations.

Ninety-four percent of the companies offered some form of health insurance coverage, and they tended to be much more generous than the government as indicated in Exhibit IX-31.

EXHIBIT IX-31—COMPARISON OF HEALTH INSURANCE COVERAGE

Item	Private company		Government
	Mean	Media	
Percent of premium paid	91.4	100	75
Upper limit paid per individual per year	$825	$750	$1612.12

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EXHIBIT IX-31—COMPARISON OF HEALTH INSURANCE COVERAGE—Continued

Item	Private company		Government
	Mean	Media	
Upper limit paid per family per year	$1461.67	$1200	$2172.73

While the Government offers basic life insurance to all its employees, as do ninety-one percent of the companies surveyed, the percent of premium paid by the Government is only 33 percent whereas the private sector companies surveyed paid 99 percent of the premium. The Government offers a life insurance option for dependents, although the employee must pay all the premium, while only 39 percent of the companies offered life insurance for dependents. Both the Government and private companies offered accidental death insurance with a few companies at the high end providing substantially more benefits.

Federal employee compensation was much better in the areas of retirement benefits and eligibility, and in the number of holidays and the number of days of leave allowed per year. Federal employees are eligible for performance-based bonuses and may receive cash awards for superior performance, suggestions, inventions, or special services. Forty-two percent of the companies surveyed paid performance-based bonuses; 33 percent paid company profit bonuses, and 12 percent reported their employees are eligible for annual and Christmas bonuses.

With regards to intangible compensation, private sector and Air Force civilians were asked to describe their physical work environment in terms of office area and availability of eating, health and day care, and recreational facilities. Overall, private employees were more likely to have better office/work areas, whereas Air Force civilians had better support facilities available for their limited use. Almost one-third of Air Force employees indicated an inadequate working environment.

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APPENDIX I-1

National Security Decision Directive 219

(White House Summary)

April 1, 1986

DEFENSE DEPARTMENT REFORMS

Statement by the Principal Deputy Press Secretary to the President

The President has signed a directive to implement virtually all of the recommendations presented to him in the interim report of the Blue Ribbon Commission on Defense Management. The Presidential directive and separate instructions issued by Secretary of Defense Weinberger include all of the Commission's recommendations that can be implemented by Executive action.

The President takes pride and satisfaction with the many reforms already started by Secretary Weinberger and stresses that the Commission recommendations should provide the basis for structural reform which would permit the Department of Defense to build upon and go beyond what has already been accomplished. The President appreciates the Commission's statement that many of their recommendations have already been started by Secretary Weinberger. This was one of the factors that encouraged the Commission and gave them confidence that their proposals would be implemented.

The President also is indebted to David Packard, the Commission's chairman, and the Commission for their excellent work. The recommendations of the Commission are among the most extensive reforms of the Defense establishment since World War II. The Packard Commission will continue to advise the President and Secretary Weinberger during the process of implementing the report. The President expects the Commission to elaborate on its interim recommendations by issuing additional reports prior to its final report this summer.

In signing the necessary directives to implement the Commission's recommendations, the President noted that he will send a formal message to the Congress asking for Congress to join him in implementing the Commission's recommendations. He will call on the Congress to help in the implementation of executive branch reform and also to make the important congressional reforms outlined by the Commission. The President is pleased that the Congress has begun to take the first steps in this process.

April 2, 1986

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FACT SHEET

Summary of a Directive Implementing the Recommendations of the Blue Ribbon Commission on Defense Management

This directive outlines the steps approved for the implementation of the initial recommendations of the Commission on Defense Management. The Commission will make additional recommendations which will be evaluated in due course and elaborate on those it has already made, as required. We must, however, be especially mindful of the need to move quickly and decisively to implement those changes approved in this directive.

I. *National Security Planning and Budgeting*

The current Department of Defense planning, programming, and budgeting system (PPBS) is a sophisticated and effective process for the allocation of defense resources. Effective planning is a key element of PPBS. In striving to achieve the objectives of our five-year defense program within a constrained resource environment, the requirement for stable and effective planning is becoming even more important. The planning process requires that we consider the entire scope of national policies and priorities.

In this regard, it has been determined that defense planning should convey the initial guidance from senior civilian and military officials to those required to implement such guidance by: (1) the NSC reviewing our national security strategy to determine if changes are required; (2) strengthening the process through which the President provides policy and fiscal guidance to the Department of Defense; and (3) enhancing the role of the Chairman of the Joint Chiefs of Staff in the resource allocation process.

The NSC, with the advice and assistance of the Office of Management and Budget, will develop revised schedules and procedures to improve the integration of national security strategy with fiscal guidance provided to the Department of Defense. Toward this end, within 90 days of the date of this directive, the Secretary of Defense shall recommend to the NSC and OMB procedures for:

A) the issuance of provisional five-year budget levels to the Department of Defense. Those budget levels would reflect competing demands on the federal budget and gross national product, and revenue projections;

B) a military strategy to support national objectives within the provisional five-year budget levels. Such strategy would include broad military options developed by the Chairman with the advice of members of the JCS and the Commanders of the Combatant Commands;

C) a net assessment of military capabilities; and

D) selection by the President of a military program and the associated budget level.

The NSC and OMB will ensure that such procedures are fully in place prior to the beginning of the budget cycle for Fiscal Year 1989. In the meantime, the Secretary of Defense will ensure that improvements to the planning process, which result from the guidance above, are integrated with the preparation of the Fiscal Year 1988 defense budget to the greatest possible extent. In addition, OMB and DoD will undertake the appropriate steps necessary to produce a two-year defense budget for Fiscal Years 1988-89.

Our objective is to improve and stabilize strategic planning at the highest level, so that public and congressional debate can be elevated and brought to bear on these larger questions of defense policy.

II. *Military Organization and Command*

This directive fully endorses the recommendations of the Commission concerning military organization and command. To continue to strengthen command, control, and military advice, the following measures will be undertaken:

A. Within 90 days of this directive, the Secretary of Defense will report to the President concerning changes to appropriate DoD Directives undertaken to increase the effectiveness of communications between the Secretary of Defense and the Combatant Commanders. Such changes shall include improved procedures for the Chairman of the JCS to:

(1) channel the reports of the Combatant Commanders to the Secretary of Defense, subject to the direction of the Secretary, so that the Chairman may better incorporate the views of the Combatant Commanders in his advice to the President and the Secretary; and

(2) channel to the Combatant Commanders the orders of the President and the Secretary of Defense.

B. Within 180 days of the date of this directive, the Secretary of Defense will report to the President on revisions made to Joint Chiefs of Staff Publication #2 (Unified Action Armed Forces), the Unified Command Plan, and any other such publications and directives as may be necessary to accomplish the following:

(1) to provide broader authority to the Combatant Commanders to structure subordinate commands, joint task forces and support activities, subject to the approval of the Secretary of Defense;

(2) to provide options in the organizational structure of Combatant Commands to accommodate the shortest possible chains of command consistent with proper supervision and support, which the Secretary of Defense may implement during contingencies short of general war;

(3) to provide increased flexibility to deal with situations that overlap the current geographical boundaries of the Combatant Commands; and

(4) to ensure the continuing responsiveness of the Combatant Commands to current and projected national security requirements.

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We also support the recommendation of the Commission that the current statutory prohibition on the establishment of a single Unified Command for transportation be repealed. Assuming this provision of law will be repealed, the Secretary of Defense will take those steps necessary to establish a single Unified Command to provide global air, land, and sea transportation.

III. *Acquisition Organization and Procedures*

To continue to improve acquisition management, the following measures will be undertaken:

A. Within 60 days of the date of this directive, in anticipation of the enactment of legislation establishing a level II position of Under Secretary of Defense for Acquisition, the Secretary of Defense will issue a DoD Directive outlining the roles, functions, and responsibilities of the Under Secretary of Defense for Acquisition. The Under Secretary of Defense for Acquisition, who should have a solid industrial background, will serve as the Defense Acquisition Executive. The existing Defense Acquisition Executive will immediately begin implementation of these actions pending the passage of a bill authorizing appointment of a new USD(A) as contemplated by the Packard Commission. The Directive will encompass the following:

(1) definition of the scope of the "acquisition" function;

(2) responsibility for setting policy for procurement and research and development;

(3) supervision of the performance of the entire department acquisition system;

(4) policy for administrative oversight of defense contractors; and

(5) develop appropriate guidance concerning auditing of defense contractors.

B. Within 60 days of the date of this directive, in anticipation of enactment of legislation to establish the position of Under Secretary of Defense for Acquisition, the Secretary of Defense will direct the Secretaries of the Military Departments to prepare Military Department Directives establishing Service Acquisition Executives. The Service Acquisition Executives, acting for the Service Secretaries, will appoint Program Executive Officers (PEO) who will be responsible for a reasonable and defined number of acquisition programs. Program managers for these programs would be responsible directly to their respective PEO and report only to him on program matters. Thus, no program manager would have more than one level of supervision between himself and his Service Acquisition Executive, and no more than two levels between himself and the Department of Defense Acquisition Executive. Each Service should retain flexibility to shorten this reporting chain even further, as it sees fit. By this means, DoD should substantially reduce the number of acquisition personnel.

C. The Administration should work with the Congress to recodify all federal statutes governing procurement into a single government-wide procurement statute. This recodification should aim not only at consolidation, but more importantly at simplification and consistency. Within 120 days of this directive, the Director of OMB should

submit a legislative initiative to the President that accomplishes the needed consolidation, simplification and consistency. In preparing this initiative, OMB should work with the DoD and all other appropriate Federal Agencies.

D. Within 60 days the Secretary of Defense shall report to the President on measures to strengthen personnel management policies for civilian managers and employees having contracting, procurement or other acquisition responsibilities.

E. Within 45 days of this directive the Secretary of Defense shall establish procedures which call for the Joint Requirements Management Board (JRMB) to be co-chaired by the Under Secretary of Defense (Acquisition) and the Vice Chairman of the JCS. These procedures should call for the JRMB to play an active and important role in all joint programs and in appropriate Service programs by defining weapons requirements, selecting programs for development, and providing thereby an early trade-off between cost and performance. The JRMB will conduct its activities under the general supervision of the Secretary of Defense and in coordination with the Defense Resources Board.

F. Within 90 days after the appointment of the Under Secretary of Defense for Acquisition, the Secretary of Defense shall report to the President on measures, already taken or to be taken, to enhance the cost-efficiency, quality, and timeliness of procurements.

IV. *Government, Industry, Accountability*

Within 90 days of the date of this directive, the Secretary of Defense shall begin implementation and report to the President on the implementation of the recommendations of the President's Commission on Defense Management relating to Government/Industry accountability. Steps taken in this regard should not, however, reduce the Department's ability to monitor and audit contractor performance and procedures.

V. *Reporting and Coordination*

This directive contains numerous actions, plans, and implementation procedures. In order to keep the President fully informed on the progress of these events, the Secretary of Defense will advise him regularly on implementation progress.

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APPENDIX I-2

THE SECRETARY OF DEFENSE

WASHINGTON, THE DISTRICT OF COLUMBIA

13 MAY 1987

Honorable Les Aspin
Chairman
Committee on Armed Services
House of Representatives
Washington, D.C. 20515-6035

Dear Mr. Chairman:

Section 932 of the National Defense Authorization Act for Fiscal Year 1987, Pub. L. No. 99-661, requires the development of a plan for a personnel initiative designed to enhance the professionalism of, and career opportunities available to, acquisition personnel of the Department of Defense. Section 932(c) requires that a report describing the plan be submitted to the Congress.

The plan being pursued consists of two sets of initiatives. The first is a legislative change that would allow the establishment of a formal alternative personnel management system. The second involves specific actions exclusively addressing educational qualification requirements and training opportunities for acquisition personnel. Both initiatives are discussed in the following paragraphs.

The Department of Defense has been actively involved for several years in the development of improved approaches to civilian personnel management. After much study, the Department has concluded that the simplified, flexible personnel system being demonstrated by the Navy's laboratories at China Lake and San Diego, California, provides the best approach to attain long-needed systemic improvements. The President's Blue Ribbon Commission on Defense Management, headed by David Packard, agrees with this approach and has recommended specifically that the concepts of the Navy project be extended to all acquisition personnel in DoD.

The Administration's proposed Civil Service Simplification Act would allow for careful, budget neutral expansion of the Navy's successfully demonstrated system. The Department of Defense strongly supports this legislative proposal and believes it would provide the flexibility necessary to attain the desired enhancement of professionalism of acquisition personnel. However, since this Government-wide legislation has not yet received sufficient support in the Congress, the Department is prepared to pursue separate legislative authority to establish an alternative personnel management system covering DoD only. The key features of such a system are:

- Pay Banding. The system would consolidate existing grade levels into appropriate pay bands that would generally encompass the pay ranges for two or more grade levels of the General Schedule.

- Simplified Classification. Within the pay bands, the system would eliminate much of the administrative burden now involved in classification.

- Pay-for-Performance. Progression within the pay bands would be based more on performance than seniority, with greater rewards for better performers and with the ability to withhold pay raises for those whose performance is less than fully successful.

- Market Sensitivity. The system would allow the hiring of new employees within the pay bands at rates more reflective of market conditions, allowing for adequate recruitment for employees in critical, hard-to-fill occupations.

While the Department views Alternative Personnel Management System legislation as the long-term solution, other avenues are also being pursued. The prospect of establishing firm educational requirements as a prerequisite for entry into the Contracting Series, GS-1102, has been pursued with the Office of Personnel Management (OPM). By letter of January 20, 1987, OPM has advised that such requirements are precluded, in the case of this occupation, by the provisions of 5 U.S.C. 3308. An alternative approach has been proposed that may allow the establishment of educational standards, but on the condition that suitable experience could be substituted. A meeting with senior OPM, Federal Acquisition Institute, and DoD acquisition and personnel representatives, is scheduled for May 20, 1987 to explore this proposal. However, the Department would support a modification to 5 U.S.C. 3308 such as the following, that would allow OPM, with the Department of Defense, to establish appropriate educational standards: "(b) Notwithstanding the provisions of Section 3308(a), OPM is authorized to establish appropriate minimum educational standards for the Contracting Series, GS-1102, in conjunction with the Department of Defense." A college degree requirement remains the optimum that we should seek.

In a related supporting action DoD has prepared a proposal for a change to 5 U.S.C. 4107 that would allow the payment of training expenses for the primary purpose of obtaining an

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academic degree. Currently, payment is allowed for job-related training courses only. The proposal would simplify the administrative process and substantially encourage professionalism. It is expected to be submitted with the DoD Legislative Program for the 100th Congress.

It is hoped that this report will be of assistance to you.

Sincerely,

William H. Taft, IV
Deputy Secretary of Defense

APPENDIX I-3

ASSISTANT SECRETARY OF DEFENSE

WASHINGTON, D.C. 20301-4000

FORCE MANAGEMENT AND PERSONNEL

2 MAR 1988

Honorable Les Aspin
Chairman, Committee on
Armed Services
House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

Section 934 of the National Defense Authorization Act for Fiscal Year 1987 states that "The Secretary of Defense shall submit to the Committees on Armed Services of the Senate and the House of Representatives a report containing a plan for the coordination of educational programs managed by the Department of Defense for acquisition personnel of the Department." The plan to improve the education and training of the acquisition work force and the relevant directives to be revised are enclosed. The Defense Systems Management College's (DSMC) mission has been expanded to include the responsibility for the coordination of high quality mandatory training and education courses of study by DoD and non-DoD sources that will prepare selected military officers and civilian personnel for assignments in acquisition career fields.

A similar letter is being sent to the Chairman of the Committee on Armed Services, United States Senate.

Sincerely,

Grant S. Green, Jr

Enclosures:
As Stated

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THE UNDER SECRETARY OF DEFENSE

WASHINGTON, DC 20301

ACQUISITION (P/CPA)

4 FEB 1988

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS
ASSISTANT SECRETARY OF DEFENSE (FORCE MANAGEMENT AND PERSONNEL)
DIRECTORS OF THE DEFENSE AGENCIES
COMMANDANT, DEFENSE SYSTEMS MANAGEMENT COLLEGE

SUBJECT: Initiatives to Improve the Education and Training of the Acquisition Workforce

Your efforts in improving the professionalism of the acquisition workforce have been exceptional. To continue these fine efforts, I ask your support and timely action in implementing the recommendations (Attachment 1) developed by the inter-Service Acquisition Enhancement (ACE) Program Action Group.

To ensure these efforts are properly directed, supported, and coordinated, I have expanded the mission of DSMC. Essentially, I have directed DSMC to become the full-time OSD action agent to work with the Services and Agencies in accomplishing the activities outlined in Attachment 2.

As part of that new mission, I would like DSMC (with the help of the Services) to provide by March 1, 1988, the following:

(1) a revised DoD Directive 5160.55, "Defense Systems Management College,"to incorporate the expanded mission;

(2) a single DoD Directive that consolidates the myriad of existing DoD Directives, Instructions, and Manuals on acquisition training and education; and

(3) recommendations for revision (if necessary) of DoD Directive 5000.23, to provide for separate alternative training programs (OJT, other courses, etc.) for managers of major and less-than-major programs unable to attend the DSMC Program Management Course because of insufficient course capacity.

To help DSMC accomplish its expanded mission, I request that the Army Colonel and Air Force Lieutenant Colonel positions previously provided to serve on the ACE Program Action Group be converted to permanent positions on the DSMC Table of Distribution and Allowances by June 1, 1988, and the incumbents continue in

these positions. The inter-Service ACE Program Action Group is to provide continued support for these activities. Further, the Commandant, DSMC, shall identify any additional resources--expected to be extremely modest--as the work necessary to perform the expanded mission takes shape.

Attachments

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Near Term Improvements in the Education and

Training of the Acquisition Workforce

a. The sponsoring schools shall modify the acquisition courses shown in Enclosure 1 (Revised Curricula) and as coordinated with the appropriate functional boards. These revised courses must be available in the second quarter of FY89. Thus, their development and/or modification shall be given resource priority over other acquisition training development efforts. The sponsoring schools for these courses are listed in Enclosure 2.

b. While these modifications are being made, but no later than the second quarter FY89, the DoD Components may follow the training requirements set forth in Enclosure 3 (Interim Curricula) in lieu of the training requirements established in DoDD 5000.48.

c. Apply maximum training resources to the courses listed in Enclosure 4 to reduce the existing student backlog for those courses.

d. Encourage the judicious use of the form at Enclosure 5 to accurately reflect fulfillment of DoD mandatory training requirements through experience, education, and/or alternate training. Services and Defense Agencies will develop their own procedures to administer the form, ensuring that individual records are appropriately updated. Approval level should be at least two tiers above the individual's supervisor, or at the general officer/flag officer level (or civilian equivalent), which ever is lower.

REVISED CURRICULA

I. Training Requirements For GS-1102 (Contracting), and Comparable Military Personnel

Level	Mandatory Courses
1. Entry	Management of Defense Acquisition Contracts 8D-4320 (JT) - 4 weeks Principles of Contract Pricing QMT 170 (JT) - 2 weeks

Level	Mandatory Courses If Job Is Primarily Pre-Award Oriented
2. Intermediate	Management of Defense Acquisition Contracts (Advanced) 8D-F12 (JT) - 2 weeks and 4 days Government Contract Law PPM 302 (JT) - 2 weeks
3. Senior	Management of Defense Acquisition Contracts (Executive) ALMC-B5 (JT)[1] - 1 week Defense Acquisition and Contracting Executive Seminar ER (JT)[2] - 1 week

Level	Mandatory Courses If Job Is Primarily Post-Award Oriented
2. Intermediate	Advanced Contract Administration PPM 304 (JT) - 2 weeks and 3 days Government Contract Law PPM 302 (JT) - 2 weeks
3. Senior	Contract Administration (Executive) PPM 057 (JT)[1] - 1 week Defense Acquisition and Contracting Executive Seminar - ER (JT)[2] - 1 week

Level	Mandatory Courses If Job Is Primarily Oriented to Cost And Price Analysis
2. Intermediate	Quantitative Techniques for Cost & Price Analysis QMT 345 (JT) - 2 weeks and 4 days Government Contract Law PPM 302 (JT) - 2 weeks
3. Senior	Advanced Contract Pricing QMT 540 (JT) - 2 weeks Defense Acquisition and Contracting Executive Seminar ER (JT)[2] - 1 week

REVISED CURRICULA
(CONTINUED)

Level	Mandatory Courses If Involved In Acquisition Of Information Resources
2. Intermediate	Defense Contracting For Information Resources ALMC-ZX - 2 weeks

Level	Mandatory Courses If Assigned To A Major Systems Acquisition
3. Senior	Major Systems Acquisition For Contracting Personnel DSMC-31 - 2 weeks

II. Training Requirements for GS-1103 (Industrial Property) and Comparable Military Personnel

Level	Mandatory Courses
1. Entry	Industrial Property Administration PPM 151 (JT) - 2 weeks and 4 days Management of Defense Acquisition Contracts 8D-4320 (JT) - 4 weeks Defense Contract Property Disposition ALMC-TY - 1 week
2. Intermediate	Advanced Property Administration PPM 300 (JT) - 2 weeks
3. Senior	Defense Acquisition and Contracting Executive Seminar ER (JT)[2] - 1 week

III. Training Requirements for GS-1105 (Purchasing) and Comparable Military Personnel

Level	Mandatory Courses
1. Entry (GS-4/6)	Defense Small Purchase (Basic) ALMC-B3 (JT) - 1 week
2. Intermediate (GS-7/10)	Defense Small Purchase (Advanced) ALMC-B4 (JT) - 1 week

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REVISED CURRICULA
(CONTINUED)

IV. Training Requirements for GS-1106 (Procurement Clerk/Assistant) and Comparable Military Personnel

Level	Mandatory Courses
1. Entry (GS-3/5)	-
2. Intermediate (GS-6/7)	Defense Small Purchase (Basic) ALMC-B3 (JT) - 1 week

V. Training Requirements for GS-1150 (Industrial Specialist) and Comparable Military Personnel

Level	Mandatory Courses
1. Entry	Production Management I PPM 153 (JT) - 6 weeks Management of Defense Acquisition Contracts 8D-4320 (JT) - 4 weeks
2. Intermediate	Production Management II PPM 305 (JT) - 3 weeks Management of Defense Acquisition Contracts (Advanced) 8D-F12 (JT)[3] - 2 weeks and 4 days; or Advanced Contract Administration PPM 304 (JT)[4] - 2 weeks and 3 days
3. Senior	Defense Acquisition and Contracting Executive Seminar ER (JT)[2] - 1 week

VI. Training Requirements for Personnel Performing Quality Assurance Functions In The Acquisition Process (GS-1910, GS-800, GS-1100, Comparable Military)

Level	Mandatory Courses
1. Entry	Defense Quality Assurance (TBD) or Selected Courses Listed in DoD 1430.10-M-2
2. Intermediate	Quality Assurance Management I ALMC-QC* - 1 week
3. Senior	Quality Assurance Management II ALMC-QD* - 1 week

* or equivalent course recommended by the Quality Assurance Council

REVISED CURRICULA
(CONTINUED)

VII. Training Requirements For Personnel To Be Assigned As Program Managers

Level	Mandatory Courses
3. Senior	Program Management Course DSMC 3 - 20 weeks

1 - Also Mandatory For GS-12/Comparable Military Contracting Officers
2 - Should Be Attended Every 3-5 Years
3 - Mandatory Course To Be Taken If Job Is Primarily Pre-Award Oriented
4 - Mandatory Course To Be Taken If Job Is Primarily Post-Award Oriented

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SUMMARY OF SPONSORING SCHOOLS FOR

MANDATORY COURSES (REVISED CURRICULA)

Sponsoring School	Course Number	Course Title
AFIT	PPM 057	Contract Administration (Executive) *
	PPM 151	Industrial Property Administration **
	PPM 153	Production Management I **
	PPM 300	Advanced Property Administration **
	PPM 302	Government Contract Law
	PPM 304	Advanced Contract Administration **
	PPM 305	Production Management II **
	QMT 170	Principles of Contract Pricing **
	QMT 345	Quantitative Techniques for Cost & Price Analysis
	QMT 540	Advanced Contract Pricing **
ALMC	8D-4320	Management of Defense Acquisition Contracts (Basic) **
	8D-F12	Management of Defense Acquisition Contracts (Advanced) **
	ALMC-B5	Management of Defense Acquisition Contracts (Executive) *
	ALMC-B3	Defense Small Purchase (Basic) **
	ALMC-B4	Defense Small Purchase (Advanced) *
	ALMC-TY	Defense Contract Property Disposition
	ALMC-QC	Quality Assurance Management I **
	ALMC-QD	Quality Assurance Management II **
	ALMC-ZX	Defense Contracting for Information Resources
Navy	ER	Defense Acquisition and Contracting Executive Seminar
AMEC	TBD	Defense Quality Assurance *
DSMC	DSMC-3	Program Management Course
	DSMC-31	Major Systems Acquisition for Contracting Personnel *

* Course to be developed
** Existing course to be reviewed and/or revised, as appropriate, to reflect course consolidations

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INTERIM CURRICULA

I. Training Requirements For GS-1102 (Contracting), and Comparable Military Personnel

Level	Mandatory Courses
1. Entry	Management of Defense Acquisition Contracts 8D-4320 (JT)[1] - 4 weeks; or Contract Administration PPM 152 (JT)[2] - 3 weeks Principles of Contract Pricing QMT 170 (JT)[3] - 2 weeks; or Defense Cost and Price Analysis PN (JT) - 2 weeks Defense Contract Negotiation Workshop CN (JT) - 1 week
2. Intermediate	Management of Defense Acquisition Contracts (Advanced) 8D-F12 (JT)[1] - 2 weeks and 4 days or Advanced Contract Administration PPM 304 (JT)[2] - 2 weeks and 3 days Government Contract Law PPM 302 (JT) - 2 weeks Quantitative Techniques For Cost & Price Analysis QMT 345 (JT)[4] - 2 weeks and 4 days Defense Contracting For Information Resources ALMC-ZX[6] - 2 weeks
3. Senior	Defense Acquisition and Contracting Executive Seminar ER (JT)[5] - 1 week

II. Training Requirements for GS-1103 (Industrial Property) and Comparable Military Personnel

Level	Mandatory Courses
1. Entry	Industrial Property Administration PPM 151 (JT) - 2 weeks and 4 days Management of Defense Acquisition Contracts 8D-4320 (JT)[2] - 4 weeks; or Contract Administration PPM 152 (JT)[2] -3 weeks Defense Contract Property Disposition ALMC-TY - 1 week
2. Intermediate	Advanced Property Administration PPM 300 (JT) - 1 week and 3 days Government Contract Law PPM 302 (JT) - 2 weeks
3. Senior	Defense Acquisition and Contracting Executive Seminar ER (JT)[5] - 1 week

INTERIM CURRICULA
(CONTINUED)

III. Training Requirements for GS-1105 (Purchasing) and Comparable Military Personnel

Level	Mandatory Courses
1. Entry (GS-4/6)	Defense Small Purchase (Basic) ALMC-B3 (JT) - 1 week
2. Intermediate (GS-7/8)	-

IV. Training Requirements for GS-1106 (Procurement Clerk/Assistant) and Comparable Military Personnel

Level	Mandatory Courses
1. Entry (GS-3/5)	-
2. Intermediate (GS-6/7)	Defense Small Purchase (Basic) ALMC-B3 (JT) - 1 week

V. Training Requirements for GS-1150 (Industrial Specialist) and Comparable Military Personnel

Level	Mandatory Courses
1. Entry	Production Management I PPM 153 (JT) - 6 weeks Management of Defense Acquisition Contracts 8D-4320 (JT)[1] - 4 weeks; or Contract Administration PPM 152 (JT)[2] - 3 weeks
2. Intermediate	Production Management II PPM 305 (JT) - 3 weeks Management of Defense Acquisition Contracts (Advanced) 8D-F12 (JT)[1] - 2 weeks and 4 days; or Advanced Contract Administration PPM 304 (JT)[2] - 2 weeks and 3 days Government Contract Law PPM 302 (JT) - 2 weeks
3. Senior	Defense Acquisition and Contracting Executive Seminar ER (JT)[5] - 1 week

INTERIM CURRICULA
(CONTINUED)

VI. Training Requirements for Personnel Performing Contracting Quality Assurance Functions In The Acquisition Process (GS-1910, GS-800, GS-1100, and Comparable Military)

Level	Mandatory Courses
1. Entry	Defense In-Plant Quality Assurance AMEC* 8D-F34 - 7 1/2 days; or DCAS Contract Quality Assurance DLA-S01* - 13 days (96 hours); or Air Force Quality Assurance Orientation AFSC - 1 (Kirtland AFB, NM) - 1 week
2. Intermediate	Quality Assurance Management I ALMC-QC* - 1 week
3. Senior	Quality Assurance Management II ALMC-QD* - 1 week

* or equivalent course recommended by the Quality Assurance Council

VII. Training Requirements For Personnel To Be Assigned As Program Managers

Level	Mandatory Courses
3. Senior	Program Management Course DSMC 3 - 20 weeks

1 - Mandatory Course To Be Taken If Job Is Primarily Pre-Award Oriented
2 - Mandatory Course To Be Taken If Job Is Primarily Post-Award Oriented
3 - Recommended For Cost And Price Analysts
4 - Mandatory If Performing Intermediate Level Cost And Price Analysis
5 - Should Be Attended Every 3-5 Years
6 - Mandatory Course To Be Taken If Involved In Acquisition Of Information Resources

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INCREASE STUDENT OUTPUT OF SELECTED ACQUISITION COURSES

As recommended by the ACE Program Group, focus your training resources on the following selected acquisition courses beginning in FY88.

a. Government Contract Law
b. Advanced Contract Administration
c. Management of Defense Acquisition Contracts (Basic)
d. Management of Defense Acquisition Contracts (Advanced)
e. Principles of Contract Pricing
f. Production Management II
g. Defense Small Purchase
h. Defense Acquisition and Contracting Executive Seminar

Increase student output and eliminate the training backlog for these courses by the end of FY90 and maintain the broad base of training resources currently in place, while taking specific action (where appropriate) to:

a. Increase the use of quality, cost-effective on-site offerings.
b. Increase class size, where appropriate.
c. Permit the shifting of resources once the backlogs on these courses are reduced to levels approximating annual requirements.
d. Maximize use of equivalency tests and/or course exemptions based on fulfillment of DoD mandatory training requirements through experience, education and/or alternate training.
e. Investigate the increased use of contractor and other non-DoD-offered courses, especially in the short term.

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Fulfillment of DoD Mandatory Training Requirement

Through Experience, Education, Equivalency Test, or Alternate Training

Employee Request (Please Print or Type)

I, _____ (Name), propose that the skills and knowledge provided by DoD mandatory course _____ (Course Title), _____ (Course Number), _____ (Course Level - Entry/Intern/Sr), have been obtained by experience, education, equivalency test, or alternate training. Based on the attached justification (use plain bond paper), I request that this be considered fulfillment of the mandatory training requirement indicated.

Employee Signature/Date _____ SSN _____

Position Title/Series Grade _____ Current Level _____

Office Symbol/Location _____ Date Entered Current Level _____

Supervisor's Recommendation

____ I do not concur in this request. (Return form to employee.)

____ I recommend approval of this request, based on the employee having obtained the requisite skills and knowledge, as stated above. (Forward form through channels to the approving/disapproving official.)

Signature/Date _____ Duty Title _____

Office Symbol/Location _____

Approving/Disapproving Official

____ Approved ____ Disapproved

Signature/Date _____ Duty Title _____

Office Symbol/Location _____

GUIDELINES

EXPANDED MISSION OF THE DEFENSE SYSTEMS MANAGEMENT COLLEGE

References:
(a) DoD Directive 5000.1, "Major and Non-Major Defense Acquisition Programs," September 1, 1987
(b) DoD Directive 5000.23, "System Acquisition Management Careers," December 9, 1986
(c) DoD Directive 5000.48, "Experience, Education, and Training Requirements for Personnel Assigned to Acquisition: Contracting, Quality Assurance, and Business and Financial Management," December 9, 1986
(d) DoD Directive 5010.16, "Defense Management Education and Training Program," July 28, 1972
(e) DoD 1430.10-M-1, "DoD Civilian Career Program for Contracting and Acquisition Personnel," December 1982, authorized by DoD Instruction 1430.10, June 22, 1981
(f) DoD 1430.10-M-2, "DoD-Wide Civilian Career Program for Quality and Reliability Assurance Personnel," March, 1980, authorized DoD Instruction 1430.10 June 22, 1981

It is DoD policy to prepare and assign fully qualified individuals to positions in support of defense acquisition. References (a) through (f) establish and implement training, education, and experience requirements for some acquisition personnel. To facilitate fulfillment of this training and education requirement, and provide for improved education opportunities for the entire acquisition workforce, the mission of the Defense Systems Management College (DSMC) is expanded to include the entirety of acquisition management as reflected in Reference (a).

To accomplish this mission, the DSMC will be the action agent for the USD(A) with the support of the Services to:

a. Provide certification of DoD and non-DoD education and training centers for course equivalency.

b. Provide full-time oversight for DoD acquisition training and education in coordination with the appropriate functional board.

c. Avoid unnecessary duplication in curricula.

d. Develop and promote current and effective methods of acquisition-related training and education.

e. Ensure the conduct of high quality mandatory training and education courses of study by DoD and non-DoD sources that shall prepare selected military officers and civilian personnel for assignments in acquisition career fields.

f. Manage the annual quota allocation process related to the courses described in DoD Directives 5000.23, 5000.48, 5010.16, and DoD Manuals 1430.10-M-1 and 1430.10-M-2 (references (b) through (f)) and as directed by the USD(A) to encourage the most cost effective use of DoD and non-DoD training resources while maintaining an adequate level of acquisition training expertise and facilities within DoD to accomplish the mission.

g. Budget for resources associated with the quota allocation process, including all mandatory training and education.

h. Develop appropriate experience, education, and training standards that may be used in place of mandatory acquisition courses.

i. Develop appropriate alternative training and education programs to include non-DoD and contract activities.

j. Promote and conduct research and provide information related to acquisition management training and education.

k. Recommend to the USD(A) additions or deletions to the mandatory courses in DoD Directives 5000.23 and 5000.48 (references (b) and (c)) after coordination with appropriate functional boards.

l. Provide oversight, review, and guidance in course development activities to maintain course quality.

Functional Boards, such as the Defense Contracting and Acquisition Career Management Board (DCACMB), the Quality Assurance Council (QA Council) and the Defense Management Education and Training Board (DMETB), shall provide advice to the DSMC regarding the requirements of education and training of functional personnel under the cognizance of the respective boards.

The Commandant, DSMC shall be responsible for executing the mission in accordance with the policy guidance provided by and approved by the USD(A). The Commandant shall review the operation and accomplishments and report findings to the USD(A) annually.

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The Secretaries of the Military Departments and Directors of the Concerned Defense Agencies (or Their Designees), shall:

a. Ensure that the DoD Component schools and training centers develop effective working relationships between the DSMC and the schools.

b. Submit to the DSMC the annual requirements and 5-year projections for each mandatory course to meet the mandatory education and training requirements.

c. Maintain entry, no-show, graduate, and other course data and provide same to the DSMC upon request.

d. Advise the DSMC of manpower authorizations used to staff the Service Learning Centers for the DoD mandatory courses.

e. Submit semiannual cost data for student and faculty travel and per diem, operations and maintenance (O&M) support costs, and curriculum development, maintenance and revision costs.

The Secretary of the Army, or designee, shall:

a. Provide support services and maintain facilities and equipment essential to the functioning of the DSMC at Fort Belvoir and ensure that administrative and resource support is timely, adequate, and supportive of the DSMC's mission.

b. Include the DSMC's annual budget in the Department of the Army's overall budget and financial plan and Program Objectives Memorandum (POM) submission. The USD(A) will be consulted prior to incorporation within Army-level documents of any proposed downward adjustments in the DSMC's budget, POM submission, manpower, or facilities.

The Assistant Secretary of Defense (Force Management and Personnel) shall:

a. Through the Training and Performance Data Center develop and maintain an education and training information data base to support acquisition requirements, including those for course files, master course schedule, and job aids.

b. Through the Defense Manpower Data Center develop and maintain a functional and training related data base to track the training status of acquisition personnel.

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Programming, Budgeting, and Financing

1. The DSMC shall separately identify and budget for its resources to include funds for student and faculty travel and per diem, Operation and Maintenance (O&M) student support costs, and curriculum development and revision costs for the mandatory courses. The DSMC's program and budget plan will be submitted to the Army, its executive agent.

2. If additional instructional resources and supporting facilities are required over and above that allocated for the mandatory courses, requirements shall be forwarded to the DSMC with a detailed justification plan for them. The DSMC shall make adjustments where possible in the DoD acquisition training base to eliminate the need for the additional resources. If adjustments cannot be made and additional funding is required, the request shall be forwarded to the USD(A) for applicable action and direction.

Department of Defense

DIRECTIVE

August 22, 1988

NUMBER 5000.52

USD(A)

SUBJECT: Defense Acquisition Education and Training Program

References: (a) DoD Directive 5000.23, "Systems Acquisition Management Careers," December 9, 1986 (hereby canceled)
(b) DoD Directive 5000.48, "Experience, Education, and Training Requirements for Personnel Assigned to Acquisition: Contracting, Quality Assurance, and Business and Financial Management," December 9, 1986 (hereby canceled)
(c) DoD Instruction 5100.58, "Defense Procurement Career Management Board," October 7, 1968 (hereby canceled)
(d) DoD 1430.10-M-1, "DoD Civilian Career Program for Contracting and Acquisition Personnel," December, 1982 (hereby canceled), authorized by DoD Instruction 1430.10, June 22, 1981
(e) through (i), see enclosure 1

A. PURPOSE

This Directive supercedes references (a) through (e) and requires the establishment of experience and eligibility criteria and education and training requirements for military and civilian personnel assigned to acquisition positions in the Department of Defense.

B. APPLICABILITY AND SCOPE

This Directive applies to:

1. The Office of the Secretary of Defense (OSD), the Military Departments (including their National Guard and Reserve components), the Organization of the Joint Chiefs of Staff (OJCS), the Unified and Specified Commands, the Defense Agencies, and the DoD Field Activities (hereafter referred to collectively as "DoD Components").

2. The following acquisition functional areas: program management, procurement and/or contracting, quality assurance, acquisition logistics personnel, system engineers, manufacturing and production personnel, business and financial management, and any other acquisition specialty that may be determined by the Under Secretary of Defense (Acquisition) (USD(A)) to be appropriate and applicable at a later time. It includes military officer and enlisted positions in the categories specified, as well as civilian positions in their respective occupational codes in the competitive and excepted service schedules A, B, and C.

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C. DEFINITION

Acquisition. The conceptualization, initiation, design, development, test, contracting, production, deployment, and logistic support of weapon and other systems, supplies, or services (including construction) to satisfy Agency needs, intended for use in or in support of military missions.

D. POLICY

1. The USD(A) shall develop and promulgate DoD policy for preparing and assigning fully qualified individuals to acquisition positions. Primary responsibility rests with the DoD Components to develop and implement procedures that expediently provide appropriate education, training, and career development opportunities to participants in the acquisition process. Selected education and training courses shall be identified by the USD(A) and made mandatory for personnel performing specific job functions. Such courses shall provide a common, non-DoD Component-specific, minimum foundation of knowledge on which the DoD Components can rely as they build their unique education and training courses. USD(A)-mandated courses shall receive resource priority over other acquisition-related courses.

2. Minimum experience and education standards for civilians are in the current edition of the Office of Personnel Management (OPM) Handbook X-118 (reference (f)). To the extent the mandatory requirements established by the USD(A) in implementing documents differ from these standards, they shall be treated as quality ranking factors for identifying the best qualified from among the minimally qualified candidates consistent with the current edition of the Federal Personnel Manual (FPM), Chapters 338 and 335 (reference (g)).

3. Military personnel assigned to acquisition positions shall meet the standards established by the USD(A) in implementing documents for comparable civilian positions.

4. The defense acquisition management courses shall be reviewed regularly by the Commandant, Defense Systems Management College (DSMC), to ensure adequacy of content and to anticipate education and training needs consistent with the procedures in an implementing manual.

5. When required by the DoD Components, resident and on-site instruction programs for the defense acquisition management courses may be supplemented by other modes of instruction such as correspondence, satellite, on-the-job training courses, and accredited off-campus instruction, consistent with training practices of the DoD Components.

6. Employees of private organizations under contract to a DoD Component are authorized attendance only on a space-available basis at the mandatory courses, provided the DoD Component certifies that a valid requirement for attendance exists. In all such cases, the regulations of the sponsoring DoD Component on the eligibility for attendance of civilian contractor personnel at DoD Component schools shall be complied with.

E. RESPONSIBILITIES

1. The Under Secretary of Defense (Acquisition) (USD(A)) is responsible for policy, direction, and evaluation of the overall defense acquisition education and training program for military and civilian acquisition personnel and shall:

a. Issue, modify, or eliminate experience, education, and training requirements in an implementing manual in consultation with the Assistant Secretary of Defense (Force Management and Personnel)(ASD(FM&P)) and the DoD Components.

b. Approve or disapprove proposed new courses and eliminate existing mandatory acquisition courses.

c. Determine, in conjunction with the ASD(FM&P), the uniform procedures and policies for the DoD-wide career program for acquisition personnel.

d. Establish, working with the Components, functional boards or advisors to provide advice and consultation on experience, education, and training requirements.

2. The Assistant Secretary of Defense (Force Management and Personnel) (ASD(FM&P)) shall provide advice and assistance in implementing the policy established in this Directive.

3. The Heads of DoD Components shall integrate the experience, education, and training requirements of the USD(A) with the military and civilian personnel assignment policies and procedures of their respective organizations. Each Component shall have entry-level (GS 5/7 or military equivalents) acquisition intern programs centrally managed and controlled to provide a source of highly qualified candidates for high-level acquisition positions. The number should be set consistent with anticipated turnover, growth of the occupational field, and planned intake at mid or higher levels. Additions or deletions of a course of instruction as a DoD-mandated acquisition course may be recommended to the USD(A).

4. The Commandant, Defense Systems Management College (DSMC), shall serve as the Executive Agent for the USD(A) to provide oversight for the DoD education and training program for the acquisition workforce. (See DoD Directive 5160.55, reference (h).)

F. PROCEDURES

1. The experience, education, and training requirements established by the USD(A) shall be used to screen individuals proposed for assignment to acquisition management positions.

2. Certain USD(A) requirements may be waived by the command authority level determined by the DoD Component, except those requirements established for program managers or deputy program managers as required by 10 U.S.C. (reference (i)). (See subsection F.3., below) This authority includes waiver of grade, experience, education, or training requirements if an individual is

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determined to be otherwise qualified for the job series and level, consistent with OPM Handbook X-118 (reference (f)). Current employees are not required to meet the experience and education prerequisites in this Directive as of its effective date. However, they are expected to satisfy all the training requirements.

3. DoD Form 2518 (enclosure 3) may be used to reflect the fulfillment of DoD mandatory acquisition training and education requirements (for other than program managers and deputy program managers) through experience, education, and/or alternate training. The DoD Components shall develop their own procedures to administer the form, ensuring that individual records are appropriately updated. Approval level should be at least two tiers above the individual's supervisor or at the general officer and/or flag officer level (or civilian equivalent), whichever is lower. The standards for education, training, and experience for program manager and deputy program managers are established by USD(A). Unless specifically waived by the Secretary of the Military Department concerned, every standard prescribed must be met before assignment as program manager or deputy program manager for a major program. A copy of each waiver of the mandatory standards for program managers of major programs granted by the Secretary of the Military Department concerned shall be furnished immediately to the USD(A).

4. The procedures for the administration of the Defense Acquisition Education and Training Program will be in an implementing manual and DoD Directive 5160.55 (reference (h)). DoD Components shall assist the Commandant, DSMC, in ensuring that the administration of the program is timely and efficient.

5. Policy and procedures governing the programming, budgeting, and financing of the mandatory DoD acquisition courses are contained in reference (h).

G. EFFECTIVE DATE AND IMPLEMENTATION

This Directive is effective immediately. Forward two copies of implementing documents to the Under Secretary of Defense (Acquisition) within 60 days.

William H. Taft, IV
Deputy Secretary of Defense

Enclosures - 3
1. References
2. Objectives of the Defense Acquisition Education and Training Programs
3. DD Form 2518, "Fulfillment of DoD Mandatory Training Requirement"

REFERENCES, continued

(e) DoD 1430.10-M-2, "DoD-Wide Civilian Career Program for Quality and Reliability Assurance Personnel," March 1980 (hereby canceled), authorized by DoD Instruction 1430.10, June 22, 1981
(f) Office of Personnel Management (OPM) Handbook X-118, "Qualification Standards for Positions Under the General Schedule," January 1975
(g) Federal Personnel Manual (FPM), Chapter 335, "Promotion and Internal Placement" and Chapter 338, "Qualification Requirements (General)," May 16, 1979
(h) DoD Directive 5160.55, "Defense Systems Management College," August 22, 1988
(i) Title 10, United States Code, Chapter 85, Section 1621-1624

OBJECTIVES OF THE DEFENSE ACQUISITION EDUCATION AND TRAINING PROGRAM

The objectives of the program are to:

1. Provide military and civilian personnel engaged in acquisition functions with the necessary education and training that shall promote maximum efficiency and skillful, professional performance.

2. Promote uniform DoD implementation of policies, Directives, and Instructions by providing suitable educational and training opportunities.

3. Encourage improvement in acquisition management practices through the interchange of ideas.

4. Maximize the defense acquisition management courses in subject areas not peculiar to one DoD Component, and encourage development by the DoD Components of single DoD Component courses only when they are required to meet the peculiar needs of the individual DoD Component.

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FULFILLMENT OF DOD MANDATORY TRAINING REQUIREMENT

Privacy Act Statement

AUTHORITY: EO 9397, November 1943 (SSN).

PRINCIPAL PURPOSE(S): To evaluate and determine the status of mandatory acquisition training. The purpose of soliciting the Social Security Number is for positive identification.

ROUTINE USE(S): The information provided is used for verification by the individual's supervisors and the individual's personnel office to ensure that mandatory acquisition training requirements have been fulfilled.

DISCLOSURE: Voluntary; however, failure to provide requested information may preclude an effective evaluation to determine an individual's status of mandatory acquisition training. Failure to provide the Social Security Number will not nullify the purpose or use of the requested information.

SECTION I - INDIVIDUAL REQUEST *(Type or print in ink)*

1. NAME *(Last, First, Middle Initial)*	2. COURSE NUMBER
3. COURSE TITLE	4. COURSE LEVEL *(Entry, Intermediate, Senior, etc.)*

5. STATEMENT

I propose that the skills and knowledge provided by the DoD mandatory course identified above have been obtained by experience, education, equivalency test, or alternate training. Based on the attached justification, I request that this be considered fulfillment of the mandatory training requirement indicated.

6. SIGNATURE	7. DATE SIGNED *(YYMMDD)*	8. SOCIAL SECURITY NUMBER	
9. TITLE		10. SERIES	11. GRADE / RANK
12. OFFICE SYMBOL	13. LOCATION	14. CURRENT LEVEL *(Entry, Intermediate, Senior, etc.)*	15. DATE ENTERED CURRENT LEVEL *(YYMMDD)*

SECTION II - SUPERVISOR'S RECOMMENDATION

16. CONCURRENCE / NONCONCURRENCE *(X one)*

a. CONCUR - INDIVIDUAL HAS GAINED REQUISITE SKILLS AND KNOWLEDGE AS PROPOSED IN SECTION I.	b. DO NOT CONCUR *(Return request to individual)*

17. SUPERVISOR SIGNATURE		18. DATE SIGNED *(YYMMDD)*
19. DUTY TITLE	20. OFFICE SYMBOL	21. LOCATION

SECTION III - DISPOSITION

22. APPROVAL / DISAPPROVAL *(X one)*

a. APPROVED	b. DISAPPROVED

23. SIGNATURE OF APPROVING OFFICIAL		24. DATE SIGNED *(YYMMDD)*
25. DUTY TITLE	26. OFFICE SYMBOL	27. LOCATION

DD Form 2518, SEP 88 *Previous editions are obsolete.*

Department of Defense Instruction 5000.XX (Draft)

SUBJECT: Reporting Functional and Training-related Data on Department of Defense Military and Civilian Acquisition Personnel

References: (a) DoD Directive 5000.XX, "Defense Acquisition Education and Training Program"

(b) DoD Manual 5000.XX-M, "DoD-Wide Career Program for Acquisition Personnel"

(c) FPM Supplement 292-1, U.S. Office of Personnel Management, "Personnel Data Standards" through Installment 9, October 8, 1986

(d) DoD Directive 5000.1 "Major and Non-Major Defense Acquisition Programs," September 1, 1987

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A. PURPOSE

This Instruction:

a. Establishes procedures for reporting functional and training-related data on selected civilian and military acquisition personnel of the Department of Defense.

b. Supports the concepts in references (a) and (b) by creating a Department-wide capability of tracking the training status of acquisition personnel.

B. APPLICABILITY AND SCOPE

1. This Instruction applies to the Office of the Secretary of Defense (OSD) and its field activities, the Military Departments, the Organization of the Joint Chiefs of Staff (OJCS), the Unified and Specified Commands, and the Defense Agencies (except the National Security Agency/Central Security Service and the Defense Intelligence Agency) hereafter called "DoD Components."

2. This Instruction covers military and civilian personnel in acquisition related positions as defined in reference (b). Moreover, coverage of this Instruction shall include all military and civilian personnel holding a current warrant to contractually obligate the Department of Defense to expend appropriated funds.

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C. POLICY

It is DoD policy to prepare and assign fully qualified individuals to acquisition-related positions. To this end, the Under Secretary of Defense (Acquisition) has identified selected training courses as mandatory for personnel performing specific job functions. Accordingly, the Department will collect and store relevant training data in order to report on the training status of its acquisition work force.

D. INFORMATION REQUIREMENTS

1. Procedures

a. Reporting of military and civilian components of the acquisition work force shall be accomplished through separate magnetic tapes, labeled as specified in enclosure 1, formatted as depicted in enclosure 2, and coded as shown in enclosure 3. A list of mandatory training subjects under reference (b) is given in enclosure 4.

b. Each report shall be accompanied by a letter of transmittal that provides the same information as the tape's external label (See enclosure 1).

c. OPM standard data elements shall be used where specified. Codes for these elements will comply with FPM Supplement 292-1, "Personnel Data Standards" through Installment 9, October 8, 1986, reference (c). Other data elements and codes are nonstandard and will be investigated for possible standardization under DoD Directive 5000.11, "Data Elements and Data Codes Standardization Program," December 7, 1964, and DoD Instruction 5000.12, "Data Elements and Data Codes Standardization Procedures," April 27, 1965.

File as of Date	Submission Date
March 31, 1989	April 30, 1989
September 30, 1989	October 31, 1989

c. The reporting requirements of this Instruction have been assigned Report Control Symbol DD-FM&P_____.

E. EFFECTIVE DATE AND IMPLEMENTATION

This Instruction is effective immediately. Forward two copies of implementing documents to the Assistant Secretary of Defense (Force Management and Personnel) within 120 days. Implementing documents shall name the agency or Service point of contact, title, address, and phone number, as well as the supervisor's name and phone number.

Grant S. Green, Jr.
Assistant Secretary of Defense
(Force Management and Personnel)

Enclosures

1. Submission Instructions
2. Format for Training File Data Elements
3. Coding Description
4. Acquisition Training Course Titles and Codes

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d. Each semiannual report shall contain a record for each covered worker, even if there are no training completions to report and even if all completions of required training have been documented in an earlier semiannual report under this report control symbol. Only those employed on the "as of " date are to be reported.

e. A covered worker's completions of training required by reference (b) shall be reported in the format shown in enclosure 2. Training completed before the first semiannual report cycle will be reported no later than the second report (due October 31, 1989).

f. Subsequent semiannual reports will be replacement files on the acquisition work force's training completions, documenting all the required training completions previously reported for personnel still in covered positions, and any new completions of required training taken by the same personnel, as well as corrections to their records. These replacement training files shall also document the relevant historical and current required training completions of new entrants to positions covered by reference (b).

2. Requirements

a. DoD components will submit data on covered acquisition personnel employed on the "as of" date of the report.

b. Semiannual reports shall be made under the following schedule and continually shall be made using the reporting pattern:

Enclosure 1

SUBMISSION INSTRUCTIONS

1. Tape Specifications

a. No Header or trailer labels

b. Density--6250 BPI preferred/1600 BPI accepted

c. Track--9 track

d. Record Length--160

e. Block size--8000 (50 x 160)

f. Master File Sequence--Social Security Number (ascending)

g. Numeric data shall be right-justified with leading zeros; alpha data shall be left-justified with trailing blanks

h. Use blanks for inapplicable and unavailable data unless another code is specified

i. Tape submissions must be compatible with IBM 370 series hardware

2. External Label

a. Density

b. Tracks

c. Agency

d. Submission Date

e. Report Control Symbol

f. Reel Sequence Number

g. Report "as of" Date

h. Record Count

i. Whether Military or Civilian Records

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3. Shipping Instruction

a. Military and civilian tapes shall be mailed (certified) to the following address:

Defense Manpower Data Center
Office of the Assistant Secretary of Defense (FM&P)
File Manager, Civilian Files
550 Camino El Estero, Suite 200
Monterey, CA 93940-3231

b. Tapes are overdue at the Defense Manpower Data Center after the submission date indicated in section D of this Instruction. To guarantee next day delivery of overdue tapes, overnight shipment is required.

Enclosure 2

FORMAT FOR TRAINING FILE

DATA ELEMENTS

Data Element Number	Record Field	Number of Characters	Description	OPM Standard
1	1-9	9N	Social Security Number	OPM Standard SOC-079 See enclosure 3
2	10-32	23A	Employee Name	OPM Standard NAM-042 See enclosure 3
3	33	1A	Job Specialty	See enclosure 3
4	34-37	4N	Occupational Code	OPM Standard OCC-031 See enclosure 3
5	38	1N	Level	See enclosure 3
6	39-41	3A	Acquisition Training Subject - 1	See enclosure 4
7	42	1A	Training Completion Mode - 1	See enclosure 3
8	43-44	2N	Delivering School Name - 1	See enclosure 3
9	45-48	4N	Training Completion Date - 1	See enclosure 3
10	49-51	3A	Acquisition Training Subject - 2	See enclosure 4
11	52	1A	Training Completion Mode - 2	See enclosure 3
12	53-54	2N	Delivering School Name - 2	See enclosure 3
13	55-58	4N	Training Completion Date - 2	See enclosure 3
14	59-61	3A	Acquisition Training Subject - 3	See enclosure 4

Data Element Number	Record Field	Number of Characters	Description	OPM Standard
15	62	1A	Training Completion Mode - 3	See enclosure 3
16	63-64	2N	Delivering School Name - 3	See enclosure 3
17	65-68	4N	Training Completion Date - 3	See enclosure 3
18	69-71	3A	Acquisition Training Subject - 4	See enclosure 4
19	72	1A	Training Completion Mode - 4	See enclosure 3
20	73-74	2N	Delivering School Name - 4	See enclosure 3
21	75-78	4N	Training Completion Date - 4	See enclosure 3
22	79-81	3A	Acquisition Training Subject - 5	See enclosure 4
23	82	1A	Training Completion Mode - 5	See enclosure 3
24	83-84	2N	Delivering School Name - 5	See enclosure 3
25	85-88	4N	Training Completion Date - 5	See enclosure 3
26	89-91	3A	Acquisition Training Subject - 6	See enclosure 4
27	92	1A	Training Completion Mode - 6	See enclosure 3
28	93-94	2N	Delivering School Name - 6	See enclosure 3
29	95-98	4N	Training Completion Date - 6	See enclosure 3
30	99-101	3A	Acquisition Training Subject - 7	See enclosure 4
31	102	1A	Training Completion Mode - 7	See enclosure 3

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Data Element Number	Record Field	Number of Characters	Description	OPM Standard
32	103-104	2N	Delivering School Name - 7	See enclosure 3
33	105-108	4N	Training Completion Date - 7	See enclosure 3
34	109-111	3A	Acquisition Training Subject - 8	See enclosure 4
35	112	1A	Training Completion Mode - 8	See enclosure 3
36	113-114	2N	Delivering School Name - 8	See enclosure 3
37	115-118	4N	Training Completion Date - 8	See enclosure 3
38	119-121	3A	Acquisition Training Subject - 9	See enclosure 4
39	122	1A	Training Completion Mode - 9	See enclosure 3
40	123-124	2N	Delivering School Name - 9	See enclosure 3
41	125-128	4N	Training Completion Date - 9	See enclosure 3
42	129-131	3A	Acquisition Training Subject - 10	See enclosure 4
43	132	1A	Training Completion Mode - 10	See enclosure 3
44	133-134	2N	Delivering School Name - 10	See enclosure 3
45	135-138	4N	Training Completion Date - 10	See enclosure 3
46	139-155	17	Filler	
47	156	1A	Primary Warrant Type	See enclosure 3
48	157	1N	Primary Warrant Amount	See enclosure 3
49	158	1A	Program Manager Indicator	See enclosure 3

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Data Element Number	Record Field	Number of Characters	Description	OPM Standard
50	159	1N	Major Program Indicator	See enclosure 3
51	160	1A	Contractor Job Site	See enclosure 3

Enclosure 3

CODING DESCRIPTION

Data Element Number	DESCRIPTION
	Refers to the coding standards developed by OPM under FPM Supplement 292-1, reference (c).
1	Social Security Number Valid ranges are 001000000 through 626999999 and 700000000 through 728999999. Numerals of the account number assigned by the Social Security Administration (or the pseudo SSN created in special circumstances) are the code. If a valid number is not available, see FPM Supplement 298-1, "The Central Personnel Data File," June 12, 1985, for instructions on creating a pseudo SSN.
2	Employee Name This is a literal entry, up to a maximum of 23 characters. Enter last name, space, first name, space, middle name (or middle initial) until field is exhausted. Blank fill the unused portion of the field.

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Data Element Number	DESCRIPTION
3	Job Specialty Applicable to civilian and comparable military occupations and levels described in attachment (c) of reference (b). Enter the code for job specialty described in attachment (c) of reference (b). For nonapplicable records, submit a blank in this field.

Code	Specialty
A	Information resource acquisition
B	Cost and price analysis
C	Major systems acquisition
D	Pre-award
E	Post-award
F	Pre-award; information resource acquisition
G	Post-award; information resource acquisition
H	Cost and price analysis; information resource acquisition
J	Pre-award; major systems acquisition
K	Post-award; major systems acquisition
L	Cost and price analysis; major systems acquisition

Data Element Number	DESCRIPTION
4	Occupational Code (Civilian Occupational Code)

Applicable to military and civilian members covered by reference (b). (The civilian occupations of personnel performing quality assurance functions in the acquisition process include all occupation 1910 personnel as well as some persons in occupations 0801-0899 and 1101-1199.) For applicable civilian personnel, enter their civilian occupational code from reference (c). For applicable military members, submit the civilian occupational code for which their military duty occupation is comparable under reference (b). Do not enter their military duty occupational code.

5 Level

Applicable to military and civilian members covered by reference (b), with the exception of program managers and deputy program managers. For applicable records, submit the code fitting the worker's level described in reference (b). For nonapplicable records, submit a blank in this field.

1 = Entry level (level I)
2 = Intermediate level (level II)
3 = Senior level (level III)

Data Element Number	DESCRIPTION
7,11,15,19, 23,27,31,35, 39,43	Training Completion Mode

A = Waiver (credit for experience)
B = Resident (sponsoring school)
C = Equivalent course, including equivalent college or university course or courses
D = Equivalency test
E = Correspondence course
F = Contractor course
G = Seminar
H = Accredited off campus instruction (AOCI)
J = Satellite television network
K = Government on-site

8,12,16,20 24,28,32,36 40,44 Delivering School Name

Applicable if the school delivering the completed course was one of those named below. Leave blank in nonapplicable records.

01 = Air Force Institute of Technology (AFIT), Wright-Patterson AFB, OH
02 = Army Logistics Management College (ALMC), Ft. Lee, VA
03 = Army Management Engineering College (AMEC), Rock Island, IL

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Data Element Number	DESCRIPTION
(cont'd)	04 = Defense Systems Management College (DSMC), Ft. Belvoir, VA
	05 = Defense Logistics Agency (DLA), Marietta, GA
	06 = Office of Personnel Management (OPM), Denver, CO
	07 = United States Navy (USN), Washington, DC
	08 = Navy Acquisition Management Training Office (NAMTO), Norfolk, VA
	09 = Naval Facilities Contracts Training Center (NFCTC), Port Hueneme, CA
	10 = Air Force Systems Command (AFSC), Kirtland AFB, NM
	11 = Air Training Command, Lowry Technical Training Center (ATC, LTTC), Lowry AFB, CO
	12 = U.S. Army Communications and Electronics Command, Ft. Monmouth, NJ
	13 = The American University, Kogod College of Business Administration, Washington, DC
	14 = College of San Mateo, San Mateo, CA
	15 = College of St. Thomas, St. Paul, MN
	16 = Florida Institute of Technology, Melbourne, FL
	17 = The George Washington University, Washington, DC
	18 = Rancho Santiago College, Santa Ana, CA
	19 = Richard Bland College of the William and Mary College, Petersburg, VA
	20 = Rose State College, Midwest City, OK
	21 = Tarkio College, St. Louis, MO
	22 = Massachusetts Bay Community College, Wellesley Hills, MA
	23 = Temple University, Philadephia, PA
	24 = University of California, Irvine, CA
	25 = The University of Dallas, Irving, TX

Data Element Number	DESCRIPTION
(cont'd)	26 = The University of The District of Columbia, Washington, DC
	27 = The University of Virginia, Falls Church, VA
	28 = University of West Florida, Pensacola, FL
	29 = Webster College, St. Louis, MO
	30 = Western New England College, Ft. Devens, MA or Hanscomb AFB, MA
	31 = West Los Angeles College, Culver City, CA
9,13,17,21, 25,29,33,37, 41,45	Training Completion Date Posted in year and month sequence, such as 8103, meaning March 1981. Note that training completions may be either current (happening during the semiannual report period) or historical (occurring before the semiannual report period).
47	Primary Warrant Type A warrant is the Government officer's written authorization to perform contractual roles consistent with specified duties and responsibilities which define the warrant type. Report a warrant only if it is current on the reporting date (i.e., September 30 or March 31) of this file.

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Data Element Number | DESCRIPTION

(cont'd) If a covered employee holds more than one current warrant and one grants the status of "contracting officer," report code A. If neither current warrant is for contracting officer, report the warrant type associated with the higher current warrant amount.

A = Contracting officer (also called a procuring contracting officer or PCO). A person with the authority to enter into contracts to purchase, rent, lease or otherwise obtain supplies or services from nonfederal sources, and which obligate the Federal government to expend appropriated funds.

B = Administrative contracting officer (ACO). A person with authority delegated by a contracting officer to administer contracts.

C = Terminating contracting officer (TCO). A person with authority delegated by a contracting officer to settle terminating contracts.

D = Corporate administrative contracting officer (CACO). The DoD civilian or military warranted contracting officer assigned cognizance of a corporation. The CACO is responsible for performing, on a corporate-wide basis, the contract administration functions designated by the responsible agency.

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Data Element Number | DESCRIPTION

(cont'd) E = Principal administrative contracting officer (PACO). The senior civilian or military warranted administrative contracting officer who deals exclusively, or nearly exclusively, with a single DoD contractor. The term "contractor" may include one or more corporate divisions, subsidiaries, or affiliates under close common control. PACOs are normally, but not necessarily always, physically located at the contractor's plant or other similar facility.

48 Primary Warrant Amount

This is the limitation on obligating authority imposed by SF Form 1402, "Certificate of Appointment," and any other document limiting obligating authority. If there is more than one warrant amount, report the amount associated with the warrant type reported in data element 47.

1 = No warrant amount granted

2 = $25,000 or less

3 = $25,001 through $500,000

4 = $500,001 through $2,000,000

5 = $2,000,001 through $10,000,000

6 = Over $10,000,000 (If warrant amount is "unlimited," indicate code 6.)

Data Element Number	DESCRIPTION
49	Program Manager Indicator Applicable to program managers and deputy program managers only under reference (b). Leave blank in nonapplicable records. P = Program manager D = Deputy program manager
50	Major Program Indicator Applicable to program managers and deputy program managers only. Leave blank in nonapplicable records. 1 = This employee performs work in support of a major defense program as defined in reference (d). 2 = This employee performs work in support of a nonmajor defense program as defined in reference (d).
51	Contractor Job Site Whether a majority of the person's working days during the reporting period involved performance of an acquisition function (relating to a contract of the Department of Defense) at a site or plant that is owned or operated by the contractor and that is the principal location of such person's performance of that acquisition function.

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Data Element Number	DESCRIPTION
(cont'd)	Y = Acquisition functions were performed such that more than 50 percent of the individual's time during the reporting period was at a contractor-owned or operated site or plant. N = All others.

Enclosure 4

ACQUISITION TRAINING COURSE TITLES AND CODES

Acquisition Course Titles/DMET Catalog Course Codes*	Code to submit to DMDC
Advanced Contract Administration/PPM 304	BDO
Advanced Contract Pricing/QMT540	BAD
Advanced Property Administration/PPM 300	PDN
AFSC QA Orientation/AFSC-13	to be assigned
Annual Product Substitution and Fraud Training/S80	to be assigned
Automatic Test Equipment/S32	to be assigned
Business Management Course	to be assigned
Calibration System Requirements/S07	to be assigned
Configuration Management/AFSC-35	to be assigned
Contract Administration/AFSC-32	to be assigned
Contract Administration (Executive)/PPM 057	BCM
Contractor Performance Measurement Course	to be assigned
Defense Acquisition and Contracting Executive Seminar/ER	BB3
Defense Contracting for Information Resources/AIMC-ZX	PDY
Defense Contract Property Disposition/AIMC-TY	PDO
Defense Contracts Management for Technical Personnel/Q40	to be assigned
Defense In-Plant Quality Assurance/8D-F34	QAN
Defense Small Purchase (Advanced)/AIMC-B4	BCO
Defense Small Purchase (Basic)/AIMC-B3	to be assigned
Defense Quality Assurance/course to be developed	to be assigned

* Course titles are from reference (b).

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Acquisition Course Titles and DMET Catalog Course Codes*	Code to submit to DMDC
Drawings, Dimensions and Tolerancing/S44	to be assigned
Engineering Drawing Interpretation/CECOM.061	to be assigned
Government Contract Law/PPM 302	BDP
Industrial Property Administration/PPM 151	PDM
Major Systems Acquisition for Contracting Personnel/DSMC-31	BCN
Management of Defense Acquisition Contracts(Advanced)/8D-F12	BDN
Management of Defense Acquisition Contracts (Basic)/8D-4320	BDQ
Management of Defense Acquisition Contracts (Executive)/AIMC-B5	BCL
Measuring Techniques/S06	to be assigned
Precision Mechanical Measuring Techniques-Phase I/CECOM.050	to be assigned
Prescribed Curriculum of an Intermediate Service School	to be assigned
Prescribed Curriculum of a Senior Service School	to be assigned
Principles of Contract Pricing/QMT 170	BDR
Product Conformance Assurance/AFSC-36	to be assigned
Production Management I/PPM 153	JQX
Production Management II/PPM 305	JQY
Program Management Course/DSMC-3	BBW
Quality Assurance Management I/AIMC-QC	QCV
Quality Assurance Management II/AIMC-QD	QCW
Quantitative Techniques for Cost and Price Analysis/QMT 345	BCC
Specifications and Standards/S60	to be assigned
Statistical Process Control/S81	to be assigned
Statistical Process Control Methods/QMT090	to be assigned

* Course titles are from reference (b).

REQUEST FOR AF/CVAE SUSPENSE ACTION CHANGE

TO: EXECUTIVE SERVICES DIVISION
OFFICE OF THE VICE CHIEF OF STAFF

DATE OF REQUEST: 23 Sep 1988

To be completed by Action Officer

AF/CVAE CONTROL NO.	DCS CONTROL NO.	DIRECTORATE CONTROL NO.
8808219		

SUBJECT (Unclassified only): DODI 5000.XX, Reporting Functional and Training-Related Data on DOD Military and Civilian Acquisition Personnel

TYPE OF ACTION REQUESTED (Check Applicable Box)

- [ ] CANCEL (Attach copy if direct reply is made)
- [x] EXTENSION (Interim replies are required on all extensions to Major Air Commanders. Attach copy if interim reply is made)
- [ ] TRANSFER OF ACTION (Show under "REMARKS" the name and office symbol of person accepting the action)

REQUEST NEW SUSPENSE DATE (Action office will be notified of disapprovals only)

PRESENT CVAE SUSPENSE DATE	NEW CVAE DATE REQUESTED	SIGNATURE OF ACTION OFFICER
23 September 1988	21 October 1988	James H Edgar X59051
PRESENT DOD SUSPENSE DATE	**NEW DOD DATE APPROVED**	**NAME AND PHONE NO. OF DOD APPROVING OFFICIAL**
23 September 1988	24 October 1988	Michael Dove, DMDC, AV 878-2951

JUSTIFICATION AND REMARKS

Reponse is still in coordination. Also,awaiting an input from data systems managers in Air Force Civilian Personnel Management Center (AFCPCM/DPCI). It was also decided in a meeting of the ACE Program office at DSMC that the draft DODI needs to be correlated with the draft DODM5000.XX being developed under the auspices of ACE-DSMC.

23 Sep 88

for K.A. Starkey
AVERY P SLEDGE, JR, Maj, USAF
Executive
Directorate, Contracting &
Manufacturing Policy
Assistant Secretary (Acquisition)

OFFICES REQUIRED TO COORDINATE ON DOCUMENT AFTER CC ACTION

Completed at DCS level in accordance with HOI 10-7

TYPED NAME AND TITLE: ANDREA ANDRIA, JR., TSgt, USAF
Assistant to Executive
Principal Deputy Assistant Secretary
of the Air Force (Acquisition)

SIGNATURE

FOR USE BY AF/CVAE

TO:

- [ ] APPROVED BY (initials)
- [ ] DISAPPROVED BY (initials)

COMMENTS

REQUEST FOR AF/CVAE SUSPENSE ACTION CHANGE

TO: EXECUTIVE SERVICES DIVISION
OFFICE OF THE VICE CHIEF OF STAFF

DATE OF REQUEST: 9 SEP 1988

To be completed by Action Officer

AF/CVAE CONTROL NO.	DCS CONTROL NO.	DIRECTORATE CONTROL NO.
8808219		

SUBJECT (Unclassified only): DODI 5000.XX, Reporting Functional and Training-Related Data on DOD Military and Civilian Acquisition Personnel

TYPE OF ACTION REQUESTED (Check Applicable Box)

- [ ] CANCEL (Attach copy if direct reply is made)
- [x] EXTENSION (Interim replies are required on all extensions to Major Air Commanders. Attach copy if interim reply is made)
- [ ] TRANSFER OF ACTION (Show under "REMARKS" the name and office symbol of person accepting the action)

REQUEST NEW SUSPENSE DATE (Action office will be notified of disapprovals only)

PRESENT CVAE SUSPENSE DATE	NEW CVAE DATE REQUESTED	SIGNATURE OF ACTION OFFICER
13 Sep 88	23 SEP 88	James H. Edgar
PRESENT DOD SUSPENSE DATE	**NEW DOD DATE APPROVED**	**NAME AND PHONE NO. OF DOD APPROVING OFFICIAL**
20 SEP 88	23 Sep	J. Creager AV 878-2957

JUSTIFICATION AND REMARKS

Spoke with Action Officer, Mr. James Creager, DMDC, on 9 Sep 88. Requested additional time for completion of coordination/staffing. Mr. Creager indicated an extension to 23 Sep 88 would be acceptable.

SEP 9 1988

AVERY P SLEDGE, JR, Maj, USAF
Executive
Directorate, Contracting &
Manufacturing Policy
Assistant Secretary (Acquisition)

OFFICES REQUIRED TO COORDINATE ON DOCUMENT AFTER CC ACTION

Completed at DCS level in accordance with HOI 10-7

TYPED NAME AND TITLE: CALVIN SPRINGFIELD, SSGT, USAF
Assistant to Executive

SIGNATURE

FOR USE BY AF/CVAE

TO:

- [ ] APPROVED BY (initials)
- [ ] DISAPPROVED BY (initials)

COMMENTS

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AQC SUSPENSE TRACKING CONTROL SHEET

TASKER DATE	SUSPENSED ON	CASE NUMBER
16-AUG-88	24-AUG-88	D8808219

FROM: ASD

SUMMARY

DODI 5000.XX, REPORTING FUNCTIONAL AND TRAINING-RELATED DATA ON DOD MILITARY AN CIVILIAN ACQUISITION PERSONNEL

ACTION

SUSPENSED TO:

AQCX

A/O: S HEROLD

SUSPENSE DUE:

AQC: 09-SEP-88

AQ: 12-SEP-88

DAE: 13-SEP-88

****
****

DISPOSITION

DATE TO AQC: _____

A) Director _____

B) Associate Director _____

C) Deputy _____

SIGNED BY: _____

DATE: _____

SPECIAL

TRACKING

AQC

REQUEST FOR AF/CVAE SUSPENSE ACTION CHANGE D889/088X

TO: EXECUTIVE SERVICES DIVISION
OFFICE OF THE VICE CHIEF OF STAFF

DATE OF REQUEST: 22 Aug 88

To be completed by Action Officer

AF/CVAE CONTROL NO.	DCS CONTROL NO.	DIRECTORATE CONTROL NO.
8808219	DP3429(S)	DP 3429

SUBJECT (Unclassified only):
Reporting Functional & Training-related Data on Dept of Defense Military and Civilian Acquisition Personnel

TYPE OF ACTION REQUESTED (Check Applicable Box)

- [ ] CANCEL (Attach copy if direct reply is made)
- [ ] EXTENSION (Interim replies are required on all extensions to Major Air Commanders. Attach copy if interim reply is made)
- [x] TRANSFER OF ACTION (Show under "REMARKS" the name and office symbol of person accepting the action)

REQUEST NEW SUSPENSE DATE (Action office will be notified of disapprovals only)

PRESENT CVAE SUSPENSE DATE	NEW CVAE DATE REQUESTED	SIGNATURE OF ACTION OFFICER
		Julie Tony MAJ USAF AF/DPPES 70697
PRESENT DOD SUSPENSE DATE	NEW DOD DATE APPROVED	NAME AND PHONE NO. OF DOD APPROVING OFFICIAL

JUSTIFICATION AND REMARKS

Transfer action to SAF/AQ; coordinated with Ms Sharon Herold, SAF/AQCX, ext 59051.

OFFICES REQUIRED TO COORDINATE ON DOCUMENT AFTER CC ACTION

Completed at DCS level in accordance with HOI 10-7

TYPED NAME: ALLAN J. KETTLEMUT, Lt Col, USAF
Executive
DCS/Personnel

SIGNATURE: Allan Kettlemut

FOR USE BY AF/CVAE

TO:

[x] APPROVED BY Q Aug 8-23 (initials)

[ ] DISAPPROVED BY (initials)

COMMENTS

SAF/MR SAF/AQ

AFHQ FORM OCT 76 13 PREVIOUS EDITION WILL BE USED

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MANUAL

DATE

14 APR 1989

DOD-WIDE CAREER PROGRAM FOR ACQUISITION PERSONNEL

DOD 5000.52-M

OFFICE OF THE UNDER SECRETARY OF DEFENSE
(ACQUISITION)

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FOREWORD

This manual is issued under the authority of DoD Directive 5000.52, "Defense Acquisition Education and Training Program," and applicable personnel directives. Its purpose is to provide uniform procedures and policies for the DoD Acquisition Career Program for acquisition personnel, consistent with the general policies and authorities stated in DoD 1400.25-M, Civilian Personnel Manual Chapter 950, "Civilian Career Management," June 22, 1981, and appropriate component civilian and military personnel regulations.

This manual applies to the Office of the Secretary of Defense (OSD), the Military Departments (including their National Guard and Reserve Components), the Unified and Specified Commands, the Joint Staff, the Defense Agencies, and the DoD Field Activities (hereafter referred to collectively as "DoD Components"). Its provisions cover military personnel in acquisition-related functions and assignments and civilian employees serving in the competitive and excepted service schedules A, B, and C and in some instances, temporary Federal service, covered by the acquisition career field.

This manual is effective immediately and is mandatory for use by all DoD Components. Heads of DoD Components may issue supplementary instructions when necessary to provide for unique requirements within their respective component.

Send recommended changes to the manual through channels to the following:

Office of the Under Secretary of Defense (Acquisition)

Room 3D944, The Pentagon

Washington, D.C. 20301

DoD Components may obtain copies of this manual through their own publications channels. Other federal agencies and the public may obtain copies from the Director, U.S. Naval Publications and Forms Center, 5801 Tabor Avenue, Philadelphia, Pennsylvania 19120.

DoD-WIDE CAREER PROGRAM

FOR ACQUISITION PERSONNEL

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(b) DoD Directive 5010.16, "Defense Management Education and Training Program," July 28, 1972.
(c) DoD Directive 5000.52, "Defense Acquisition Education and Training Program," August 22, 1988
(d) DoD Directive 5160.55, "Defense Systems Management College (DSMC)," August 22, 1988
(e) Federal Personnel Manual Supplement 305-1, Subchapter 85, "Executive Development," September 30, 1977.
(f) Office of Personnel Management Handbook X-118, "Qualification Standard for Positions under the General Schedule," January 1975.
(g) Office of Personnel Management Handbook X-118, "Qualification Standard for Two-Grade Interval Administrative, Management, and Specialist Positions," August 10, 1988
(h) Title 5, United States Code, Chapter 33, Section 3396.
(i) DoD 5000.52-C, "Defense Acquisition Education and Training Catalog,"
(j) Public Law 99-145, "FY 1986 Defense Authorization Act".
(k) Public Law 99-661, "FY 1986 DoD Authorization Act".
(l) Public Law 98-525, "FY 1985 Defense Authorization Act".
(m) DoD 1400.25-M, Chapter 950, "Civilian Career Management," June 22, 1981.
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(o) DoD 1400.25-M, Chapter 412, "Executive, Management and Supervisory Development," February 1, 1986.
(p) DoD Instruction 1430.12, "Logistics Civilian Career Management Program," September 14, 1982.
(q) Federal Personnel Manual (FPM) Chapter 335, "Promotion and Internal Placement," May 16, 1979.
(r) Federal Personnel Manual (FPM) Chapter 338, "Qualifications Requirements (General)," May 16, 1979.
(s) DoD 1430.11-M, "DoD Civilian Career Knowledge Test Program," August 1978.
(t) DoD Instruction 5000.52-I," Reporting Functional and Training-Related Data on Department of Defense Military and Civilian Acquisition Personnel"

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DEFINITIONS

1. Acquisition. As used in this manual, refers to the conceptualization, initiation, design, development, test, contracting, production, deployment, and logistic support of weapon and other systems, supplies, or services (including construction) to satisfy agency needs, intended for use and or support of military missions.

2. Acquisition Logistics. The process of systematically identifying and assessing logistic requirements and alternatives, analysis, and resolution of Integrated Logistics Support (ILS) deficiencies and the management of ILS throughout the acquisition process.

3. Career Advisor. An assigned individual at various organizational levels - usually a technical specialist within the acquisition career field - who is knowledgeable of the resources and criteria for career development, and is familiar with the program objectives of management and the administrative requirements for funding, budgeting, and training.

4. Career Appraisal. The process of evaluating the attributes and potential capabilities of each employee to identify career goals, to serve as a basis for career counseling, and frequently, to evaluate candidates for promotion or lateral vacancy referrals.

5. Career/Professional Development. The professional development of employee potential by integrating the capabilities, needs, interests, and aptitudes of employees participating in the career program through a planned, organized, and systematic method of training and development designed to meet organizational objectives and accomplished through work assignments, job rotation, training, education, and self-development. Chapters 3 and 4 outline career development activities for the acquisition career program.

6. Career Field. One or more occupations or functions that require similar basic knowledge and skills and that are sufficiently related to be recognized as a career pattern. The occupational series that comprise the acquisition career fields are shown in paragraph B.1.a of Chapter 1.

7. Career Levels. Groupings by a range of grade levels (entry or trainee, intermediate or journeyman, senior or executive) that provide the framework for overall training and development planning and progression within a career field.

8. Career Management. The continuing process by which employees in specific career fields are identified and developed, administered under a formal program, and used to fill positions of increasing responsibility in the Department of Defense and to provide management with a staff of proficient career employees.

9. Career Patterns. The range of opportunities at each career level and the optimum pathways for vertical and horizontal movement within a career field.

10. Career Program. A comprehensive operating plan for administering a career field that includes work force analysis, forecasting and planning, and the systematic selection, development, assessment, and utilization of employees. This manual serves as the general operating plan for the acquisition career field.

11. Certification. That process whereby the Curriculum Advisory Council (CAC) "verifies" that a course offeror has the appropriate resources (trained instructors, facilities, course materials, etc.), understands the manner in which the course is to be presented and understands the quality standards for the course. The CAC recommends certification/decertification to the DSMC ACE Program Office. This term does not apply to the certification process involved in proceeding from entry level to advanced positions in each career field.

12. Certified Course Offeror. A training source that has been certified by the DSMC to present a mandatory course in the Defense Acquisition Education and Training Program.

13. Certified School. A training organization, certified by the DSMC, that has the capacity to carry out various functions related to acquision education and training, including developing and revising curriculum, training instructors, maintaining a student database, and delivering the mandatory courses.

14. Component Career Management Coordinator. A representative of a DoD Component headquarters staff personnel office which has primary functional management responsibility for career program.

15. Counseling. A process by which supervisors and employees constructively discuss performance and behavioral factors around which an employee's career development can be planned systematically. Chapter 2 discusses counseling for this career program.

16. Defense Acquisition Education and Training Program. The program mandated by the USD(A) to provide specific education and training, and skill development to meet established requirements.

17. DoD Component Functional Chief. The Senior Acquisition Executive (SAE) at the DoD Component level who has Component-Wide responsibility and leadership for planning, developing, and administering the acquisition function or mission.

18. Employee. The term employee used in this manual refers to both DoD civilians and military members who comprise the Acquisition work force. The term member is synonymous with the term employee.

19. Equivalent Course/Program. A course not under the auspices of this manual, that has been judged by DSMC to contain the appropriate level of knowledge and would enable individuals who take the course/program to perform as if they had completed a designated course under the Defense Acquisition Education and Training Program. A course provided by a certified course offeror is not an equivalent course; it is a course under this program.

20. Executive Position. A position occupied by a senior manager, usually in the Senior Executive Service (SES), or its equivalent, who has top-level managerial or staff responsibility in a DoD Component headquarters.

21. Individual Development Plan (IDP) or its Equivalent. A document which provides an analysis of career education and training needs for orderly progression within the career field and for planning the fulfillment of these needs. It is a combined effort of the civilian employee, supervisor, career advisor, and employee development specialist, as appropriate.

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22. Manager. A DoD official who directs work of an organization; is held accountable for the success of specific line or staff programs, projects, functions, or activities; monitors the progress of the organization; and periodically evaluates, makes appropriate adjustments, and performs the major duties cited in Subchapter S5, paragraph 85-6, Federal Personnel Manual Supplement 305-1 (reference (e)).

23. Mandatory Courses. Those courses that have been identified by USD(A) through DSMC as meeting an established DoD education and training requirement. These courses will provide common, non-component-specific minimum foundation of knowledge upon which the DoD Components can rely as they build their unique acquisition education and training courses.

24. Master Training and Development Plan. An outline of training and development requirements and recommendations that is arranged by grade level and occupational grouping. Chapter 4 contains the Master Training and Development Plan for this career program.

25. Occupational Field. A single job occupational series requiring varying degrees of the same type of skills, knowledge, and abilities. Subsection B.1., Chapter 1, specifies the occupational series for this career program.

26. Sponsoring School. The school designated by the DSMC that is responsible for a specific course of instruction which is part of the curricula of the Defense Acquisition Management Education and Training Program. Responsibilities include development and maintenance of course materials, course reviews, and determination of equivalency for courses.

CHAPTER 1

INTRODUCTION

A. OBJECTIVES

The DoD Career Program for Acquisition Personnel (hereafter called "career program") is designed:

1. To meet current and future DoD needs of acquisition personnel and to provide capable replacements for senior acquisition positions on a planned, systematic basis.

2. To attract, select, develop, and retain on a long-term career basis a highly qualified work force capable of performing current and future DoD acquisition functions.

3. To increase the proficiency of DoD acquisition personnel in their present positions and to provide opportunities for broadening experiences and progression commensurate with their abilities.

4. To improve the professionalism of the Acquisition Work Force.

B. SCOPE

1. Provisions of this manual apply to military personnel in acquisition assignments and to civilian employees who are serving under career or career-conditional appointments in the competitive service or excepted service and who occupy positions in the occupational series listed below:

a. At grades GS-05 and above (except those noted below) and comparable military grades and specialties the following occupational series apply:

(1) GS-1101, General Business and Industry positions involved primarily in acquisition duties and responsibilities (career program to be determined)

(2) GS-1102, Contracting

(3) GS-1103, Industrial Property Administrator

(4) GS-1105, Purchasing (GS-4 and above)

(5) GS-1106, Procurement Clerk/Assistant (GS-3 and above)

(6) GS-8xx, GS-11xx Performing Manufacturing and Production Functions(50 percent of the time)-Industrial Specialist

(7) GS-8xx, GS-11xx, GS-1910, performing quality and reliability assurance functions in the acquisition process

(8) Business and Financial manager (multiple GS series assigned to acquisition activities)

(9) Program Management (multiple GS series)

(10) Logisticians (multiple GS series)

(11) Systems Engineers

(12) Other Acquisition specialties as determined by USD(A).

b. To comply with the intent to professionalize acquisition functions throughout the Department, when 50 percent or more of an individual's duties and responsibilities involve acquisition-related functions as described in the appendices in any other series, the individual shall meet the experience qualifications for entry into one of the series listed in paragraph B.1.a., above.

2. DoD Components shall establish internal programs for those employees identified in paragraph B.1. to ensure that the requirements of this manual and other developmental needs of the employees are met.

3. A description of duties, minimum experience, and education standards for civilians are in the current edition of the Office of Personnel Management (OPM) Handbook X-118 (reference (f)). To the extent the mandatory requirements established by the USD(A) in implementing documents differ from these standards, they shall be treated as quality ranking factors for identifying the best qualified from among the minimally qualified candidates consistent with the current edition of the Federal Personnel Manual (FPM), Chapters 338 and 335 (reference (g)).

4. Military personnel assigned to acquisition positions shall meet the standards established by the USD(A) in implementing documents for comparable civilian positions.

C. RESPONSIBILITIES

1. The Under Secretary of Defense (Acquisition) shall provide policy and direction for the Defense Acquisition Education and Training Program and career program, in consultation with the ASD(FM&P).

2. The Assistant Secretary of Defense (Force Management and Personnel) shall provide policy advice and assistance to the Under Secretary of Defense (Acquisition).

3. The DoD Component Senior Acquisition Executives shall implement this career program in coordination with their respective personnel officers and if appropriate, establish functional advisors to provide advice and consultation on experience, education, and training requirements.

D. ENTRY-LEVEL INTAKE.

1. Each DoD Component shall establish annual intake goals for the recruitment of high potential entry-level candidates. When establishing intake goals, consideration must be given to the recruitment of individuals who have the high potential for rapid development and progression to the senior level, GS/GM-13/15 and SES. Selections shall be based strictly on merit factors with recruitment

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from all appropriate sources. Due consideration shall be given to past educational achievements. Generally, it is considered desirable that candidates have academic credit in business and business-related subjects that relate directly to DoD acquisition specialties, consistent with OPM Handbook X-118 and other merit system regulations published by OPM. When making selections, DoD Component policies and procedures, including affirmative action plans, must be observed. Intake through upward mobility programs is encouraged. Additional discussion on upward mobility programs is contained in Chapter 3, Paragraph C.3.

2. Selection of military personnel for acquisition-related duty will be made based on Component needs and the qualifications and potential of the candidates.

3. Education Qualification Standards

Many of the education qualifications that appear in Appendices B through I exceed those listed in OPM Handbook X-118. OPM sets the minimum qualification standards. However, the additional educational requirements listed in Appendices B through J may be used as quality ranking factors in DoD component promotion programs, References (f), (g) and (q) apply to all statements of qualifications contained in Appendices B through I.

E. WORK FORCE ANALYSIS

1. The Defense Manpower Data Center (DMDC) will collect and maintain functional and training-related data on DoD military and civilian personnel (Reference S).

2. Information maintained by the DMDC the Training Performance and Data Center, and the DoD Components will be used to provide statistical analyses of the DoD acquisition work force and to size the education and training requirements.

F. CAREER REFERRAL

Specific minimum areas of consideration shown below are recommended to ensure a desirable level of competition when filling vacancies. They may be modified as considered appropriate by the respective DoD Components.

1. Minimum Areas of Consideration

a. GS-5 through GS-11. Vacancies at these grade levels normally are filled through external hiring, e.g., OPM registers and trainers from other Federal agencies.

b. GS-12. Vacancies at the GS-12 level typically should involve competition throughout the major command in which the vacancy is located.

c. GS/GM-13/14/15. The recommended minimum area of consideration for vacancies at GS/GM-13/14/15 is DoD-wide competition, worldwide.

d. SES-Positions. Vacancies in the SES are filled through special procedures published by each DoD Component, in accordance with OPM requirements.

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2. Considering Non-DoD Candidates. Candidates from other federal agencies and the private sector should be considered by expanding the area of consideration consistent with federal personnel policy. These sources provide for the desirable intake of talent external to DoD. Previous education and training shall be an essential element when considering non-DoD candidates for building the professional work force.

3. Military personnel. Military personnel will be selected for acquisition-related assignments based on qualifications, demonstrated performance, and potential. Identification and selection of individual military members for assignments will be made by the individual DoD Component.

4. Management Information Reports. Statistical data concerning work force profiles are provided by the DMDC periodically. Additional analyses shall be provided by DoD Component Personnel data systems and the Training and Performance Data Center.

G. MANAGEMENT REVIEWS.

The DoD Components will use management reviews, including Procurement Management Reviews, to evaluate the effectiveness of DoD acquisition activities. Such reviews should include evaluation of Component implementation of this program.

H. GOVERNMENT/CONTRACTOR RECIPROCAL TRAINING

General:

a. Training is an essential element of job performance. Much effort is required in this area to keep the work force well informed regarding new technology, materials, manufacturing processes, and technical procedures. In addition, inadequate communication among Government employees and their contractor counterparts is often the cause of strained relations and mistrust mostly due to misunderstandings. To improve this relationship and develop common quality goals. The following guidelines will be used concerning Government and Contractor reciprocal training:

1. Government personnel may participate in contractor-sponsored training courses when such training is related to the employee's job responsibilities.

2. No appreciable additional cost is incurred by the activity providing the training.

3. The training subject matter is job related and the primary emphasis is on the benefit to the Government through enhanced employee knowledge and skill.

4. Providing the training will not adversely affect the objectivity of the employee, and will not give the appearance of a conflict of interest nor of preferential treatment.

5. Contractor employees may be allowed to attend a Government sponsored-course, on a space available basis, when the training material does not involve sensitive matters of purely internal interest and there is a benefit to the Government through enhanced contractor employee knowledge.

I. ETHICS AND PROFESSIONALISM

The Department of Defense is committed to the highest ethical standards to enhance the national defense mission. Ethics and standards to increase the professionalism and conduct of the work force will included in the correction of each mandatory course in the Defense Acquisition Education and Training Program. The subject of ethics and professionalism will be presented in a manner appropriate to the student level in each course. Special emphasis will be given to the provisions of the Federal Procurement Act (PL 100-679) and DoD Directive 5500.7, "Standards of Conduct."

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CHAPTER 2

CAREER COUNSELING AND INDIVIDUAL DEVELOPMENT PLANNING

A. GENERAL

1. Counseling and assessment are day-to-day responsibilities, not periodic requirements. However, formal counseling and assessment should be accomplished at least annually.

2. The assessment process is a combined effort normally involving the individual employee, the supervisor, and the career advisor. For most employees, career counseling and assessment are accomplished in conjunction with the annual performance evaluation using DoD Component forms and Individual Development Planning procedures. Military members will be provided periodic counseling on their performance and evaluations based on individual DoD Component personnel evaluation policies.

3. The career assessment shall be a part of the documentation of the Individual Development Plan (IDP) for each employee. Personnel offices, career advisors, and supervisors shall ensure that the IDP or its equivalent for the military is developed for each employee covered by this career program. The IDP or its equivalent shall be maintained by the acquisition activity and forwarded to the service career managers on an annual basis.

B. OBJECTIVES

The objectives of career counseling and assessment are to:

1. Assess with the employee, his or her performance, training needs, and potential for further development and advancement through periodic consultation.

2. Establish an orderly career progression plan and identify the training and developmental assignments necessary to accomplish the desired progression.

3. Record employee availability for assignment to other positions within the Department of Defense.

4. Establish objectives for individual employee developmental and promotional opportunities.

C. RESPONSIBILITIES

1. Managers and Supervisors at all levels shall:

a. Maintain a record of DoD mandatory course completions, review annually employee progress against the IDP or its equivalent, and take action to schedule employee for mandatory training.

b. Evaluate annually employee potential for growth and development.

c. Counsel employees to enhance further professional development.

d. Ensure the participation of other officials in rounding out the counseling process. These officials usually will be employee development specialists and the organization's career advisors.

e. Cooperate in the execution of the IDP or its equivalent for the following year.

2. Employees shall:

a. Recognize their aptitudes, strengths, and developmental needs.

b. Seek education, training, and development to meet identifed needs as specified on prepared IDPs, or equivalent documents.

c. Consider their development in terms of career goals, which may include assignments to other positions within the Department of Defense.

d. Consider participation in related professional association activities to enhance their future development.

3. Career advisors shall provide advice about the employee's career plan and goals. Such counseling may include information about the availability of education and training courses and the course prerequisites.

4. Higher headquarters shall ensure that career counseling and individual development planning are conducted properly, are fully considered during placement and vacancy referral activities, and are integrated properly with annual training plans and programs. For the military member, established personnel counseling and evaluation systems will be followed.

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CHAPTER 3

CAREER DEVELOPMENT

A. GENERAL

Practical experience on the job is considered the primary means of career development. The second means is through completion of appropriate education and training courses. Just as developmental work assignments occur throughout an employee's career, the need to attend mandatory education and training courses occurs during all three levels--entry (GS-5 to GS-7; intermediate (GS-9 to GS-12; and senior (GS-13 and above, and comparable military levels).

B. DETERMINING NEEDS

Preparation of an IDP for the civilian employee or its equivalent for the military member is essential to career counseling and planning (Chapter 2). Supervisors shall review the current IDP and establish organizational priorities for individual employee career development. Requests for training or development shall be made through the servicing personnel office. Supervisors shall either initiate or reconfirm requests for planned career development activities based upon the employee's IDP or its equivalent.

C. CAREER DEVELOPMENT GUIDES

1. General. Developmental assignments usually consist of on-the-job work experiences arranged in a sequential order of increasing difficulty. Because the normal cycle of work activities may not provide a developmental sequence of assignments, certain important and critical tasks may only be accomplished occasionally. Unless these infrequent but critical tasks are identified and made available, employees may not qualify for future positions. To ensure proper employee development, each supervisor shall plan developmental assignments that will provide the needed experience. The supervisor shall ensure that the assignment is recorded on the IDP and in the civilian employee's official personnel folder.

2. Education and Training Agreements. Some development programs require the use of formal education and training agreements when specific training and development will be recognized as a substitute for OPM qualification requirements. The need for training agreements shall be determined in coordination with the appropriate personnel officer.

3. Upward Mobility Training Programs. The Department of Defense acquisition work force carries out essential roles in various acquisition management and administrative functions. Normally, the opportunities for advancement are limited by experience and education. DoD Component upward mobility programs, designed to promote systematic training and qualifying experience, will enable these individuals to perform professional acquisition management and administrative functions. Where practicable, these programs shall be tailored to integrate support positions into the development plan for professional acquisition jobs or developed into formal career programs operated at or below the DoD Component headquarters level.

4. Entry Level. Development at the entry level is designed to prepare qualified, motivated civilian employees and military members for positions at the full-performance level. DoD Components shall use education, training, and development programs tailored to meet specific needs. Minimum entry-level education and training course requirements for acquisition career trainees are included in Appendices B through H. At the entry level, trainees shall be exposed to the principles of small group dynamics, the subfunctions of acquisition and the roles of its various specializations. Therefore, in addition to participation in education and training courses, the new trainee also should have the opportunity to rotate through highly structured on-the-job rotational assignments.

5. Intermediate Level

a. At the intermediate level, specialization is emphasized. Development continues, but the length of time an individual spends in each position generally increases. Development of the specialist usually will not require formalized agreements or structured programs to qualify him or her for different specialities. For example, the development of a contract specialist also could involve experience as a cost/price analyst and, eventually, as a contract administrator.

b. Development of the generalist normally involves establishing a good foundation of experience in the employee's primary specialty followed by lateral movement to a related specialty. This lateral move may be accomplished under an approved training agreement if the employee does not possess the full qualifications for the position.

6. Senior Level

a. At the senior level, both specialist and generalist development continues. The amount of time required for an individual to become effective in a developmental position should decrease in proportion to the frequency of developmental assignments and higher grades.

b. Senior-level executive development systems established by DoD Components under 5 U.S.C. 33 6 (reference (g)) shall incorporate appropriate features to provide for the systematic development of candidates for the SES and for the continuing development of current senior executives, including General and Flag officers.

D. CAREER STRUCTURE

1. A review of the career work force structure frequently is helpful in the counseling process and to aid in career development planning activities.

2. Personnel who aspire to the highest levels in the career field initially should seek intermediate assignments in the appropriate occupational series to obtain qualifying experience for progression. The DoD Component executive development programs provide special emphasis for managerial development in senior levels.

3. Most senior-level positions require multispeciality experience. To obtain this experience, the employee shall have served in several speciality areas of the career program. Personnel classification specialists, staffing specialists, and career program advisors are available to assist employees and supervisors in this regard.

E. MOBILITY

1. Mobility includes any change in organizational assignment, functional or subfunctional area of specialization, or nature of assignment (operating to staff, nonsupervision to supervisor, and DoD Component to DoD Component), or geographic relocation. For the civilian employee, geographic relocation is normally required only in a limited number of career positions above the trainee level for development purposes, generally upon execution of a properly constituted mobility assignment agreement, signed voluntarily. Obviously, availability for voluntary relocation greatly increases the employee's assignment potential for development and promotion opportunities. Career management embraces the DoD-wide mission and function at all levels of responsibility. Careerists interested in advancing to more responsible positions must recognize the need for accepting reassignments and transfers, some of which may involve geographic movement. Exchange and career broadening assignments, details, cross-training, and other developmental assignments should be recognized by the careerist as a vital part of the career development process.

2. DoD Components may require career civilian trainees at the entry level to sign a mobility agreement as a condition of employment to allow for intensive training, development reassignments, and eventual appointment to a target position. It shall be filed in the employee's official personnel folder.

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CHAPTER 4

MASTER TRAINING AND DEVELOPMENT PLAN

A. GENERAL

1. This chapter and Appendices B through J establish the DoD career programs for the Acquisition Career Field that have been approved by the USD(A) for completion by acquisition personnel--both civilian and military personnel consistent with the provisions of DoD Directive 5000.52 (reference (c)). Appendices K and L list the approved equivalent DoD and non-DoD Education and Training Courses. The courses are divided into three career levels (entry, GS-05 through GS-08; intermediate, GS-09 through GS-12; and senior, GS/GM-13 and above) (grade levels vary for GS series 1105 and 1106) and comparable military levels. The mandatory courses listed in Appendices B through J should be completed before promotion to the next higher level for civilian members of the work force or within 12 months after promotion. For example, the head of a DoD acquisition activity may require a civilian employee and military member to complete mandatory contracting courses before appointment as a contracting officer in accordance with the Federal Acquisition Regulation and the supplement thereto. Acquisition activities shall send their personnel to mandatory courses as soon as practicable after they become eligible. Adherence to mandatory education and training requirements shall be a matter of concern for DoD audits, inspector general visits, and acquisition management reviews. When a mandatory course has not been completed before a civilian promotion or waived in accordance with this section or the provisions of DoD Directive 5000.52 (reference (c)), arrangements shall be made by the employee's supervisor, in coordination with the appropriate training office, to complete the mandatory course or an approved equivalent course within the prescribed period of 12 months.

2. Current personnel as of August 22, 1988, the effective date of DoD Directive 5000.52, Defense Acquisition Education and Training Program, are not required to meet the experience and education prerequisities except those required by law. However, they shall satisfy all the training requirements.

3. In addition to the mandatory courses required in Appendices B through J, each DoD Component shall develop and provide its personnel a list of courses that are considered "mandatory when required by mission." Nominees to such courses shall have "mandatory by mission" marked on training nomination forms for schools to consider as a special circumstance for acceptance. Mandatory courses shall not only be given "in residence" but shall be conducted using the most cost effective alternatives to mandatory resident courses when practical and appropriate.

4. In lieu of attending the mandatory courses, the education and training requirements may also be met by one of the following methods:

a. The employee may complete a certified equivalent course (see appendices K and L).

b. The employee may pass the appropriate DoD equivalency test (See Reference (R) DoDI 1430.11-M, DoD Civilian Career Knowledge Test Program, August 1978).

c. The employee may gain credit by obtaining the necessary skills and knowledge through appropriate qualifying experience. In such cases, DoD Form 2518 and the procedures outlined in paragraph F3, DoD Directive 5000.52 and the DoD component shall apply. Once obtained by this method, the mandatory training course requirement is satisfied.

B. EDUCATION AND TRAINING COURSES FOR ACQUISITION PERSONNEL

1. DoD 5000.52-C (reference (i)) contains descriptions and prerequisites for the courses listed in Appendices B through J. Notwithstanding the conditions in subsection A.4., above, course prerequisites may be waived on a case-by-case basis only by the sponsoring schools or certified offerors. This can be accomplished by successfully passing the equivalent DoD Contracting Knowledge test or by submitting a request for waiver of prerequisites and the appropriate justification material to the sponsoring school or certified schools/offerors.

2. Crediting Formal Academic Training. The following education and training programs and courses may satisfy the mandatory entry-level requirements as described in Appendix L: (a) certain academic courses determined as equivalent to the DoD mandatory education and training courses and (b) accredited academic degree or certificate programs and courses offered after hours, identical to those mandatory courses offered by certified Government schools. It is highly recommended that students attend the identical mandatory course offerings whenever possible. Also, the USD(A) has given a general equivalency approval to all degree programs in contracting, procurement, or acquisition, from an accredited academic institution, as meeting entry-level mandatory education and training requirements. Appendix I describes each of the programs information on how to use them. Each program is listed by accredited academic institution and should be fully exploited at the local level as a means of cost effective training delivery. Schools listed in Appendix L will have one year to update course offerings. DoD employees completing courses under revision during this intern period will meet the mandatory requirements as designated in this manual.

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Appendix A

PROCEDURES FOR THE ADMINISTRATION OF THE DEFENSE ACQUISITION EDUCATION AND TRAINING PROGRAM

A. INTERSERVICE ACQUISITION ENHANCEMENT (ACE) PROGRAM ACTION-GROUP

1. The USD(A) has established the Interservice Acquisition Enhancement (ACE) Program Action Group under the Commandant, DSMC and delegated administrative responsibility for supporting the Defense Acquisition Education and Training Program. The ACE Group will consist of one representative from the Army, Navy, Air Force, Defense Logistics Agency (smaller Defense Agencies participation is optional) and representatives of the Office of the USD(A) and a representative of the Joint Logistics Commanders Panel on Acquisition Professional Development. Representatives to the ACE Group will be designated by their DoD Component Senior Acquisition Executive. The Commandant, DSMC, or his representative will serve as chairperson. The function of the ACE Group will be to act as a working body to identify problems and issues that should be brought to the attention of the Commandant, DSMC and/or USD(A). When a problem or issue is identified, the Group will determine what further course of action may be needed, and will assign responsibility for such further work. Such assignments might be made to an ad hoc subgroup, to one DoD Component, or, if appropriate, to the Curriculum Advisory Council (CAC).

a. The Group shall consider questions involving experience, education, and training requirements, course preparation, course review; validity of training requirements, equivalency policies, quality control of instruction, certification of schools and course offerors, and minimum instructor qualifications for certification. The Group will keep the Commandant, DSMC, informed of their actions.

b. When a Group member wishes to propose, on behalf of his/her Component, the establishment/disestablishment of a mandatory acquisition course or when a problem is encountered which requires resolution by the Group, the Group member will refer such matters to either the ACE Program Office, DSMC or, if appropriate, the Commandant, DSMC, for discussion. The USD(A) will be the final approving authority for all new mandatory courses and the disestablishment of other mandatory courses based on the advice and recommendations of the DSMC Policy Guidance Council, the applicable DoD Functional Board or Advisor, and the Commandant, DSMC.

c. The Interservice ACE Program Action Group will be assisted in its work by the CAC.

2. The USD(A) has chartered and established the CAC to advise the ACE Group on the curricula and instructional methods necessary to support the Defense Acquisition Education and Training Program. The responsibilities of the CAC are listed in the charter at Attachment 2, Appendix A.

3. The DSMC has designated specific DoD schools such as AFIT, ALMC, DSMC and NAMTO to serve as sponsoring/certified schools for individual courses of instruction that make up the curricula of the Defense Acquisition Education and Training Program. The sponsoring school is responsible for the development and maintenance of necessary student, instructor and examination course materials suitable for achieving the course objectives and providing such material to certified course offerors upon request. Development should be in a competency-based format using appropriate PAI or other training blueprints, criterion-referenced objectives and corresponding test questions. Course development should be targeted to the learning domain that is appropriate for the targeted student audience. Maintenance includes incorporation of all regulatory changes into the course materials and dissemination to all certified schools and course offerors.

All schools shall establish and support appropriate modes of instruction that ensure sufficient course availability in consideration of documented student demand and in consideration of financial and personnel resources provided. The sponsoring and certified schools shall maintain appropriate student data records and provide consolidated reports to the ACE Group upon request. The CAC shall recommend to the DSMC certification of qualified course offerors. Once certification is approved, the DSMC-ACE shall then monitor the conduct of the certified course offerors to ensure the course is being presented in order to achieve established objectives and to evaluate the quality and effectiveness of the overall instruction.

4. The sponsoring/certified school must ensure that their instructors meet minimum qualification requirements which are:

a. No less than 3 years hands-on experience in the instructor's teaching subject.

b. Successful completion of an ACE-approved instructor training course.

5. The DSMC has designated specified DoD activities to serve as certified schools for individual courses of instruction. The administrative procedures for obtaining certification and for course presentation are listed below.

B. Administration of Defense Acquisition Courses

1. DoD Mandatory Acquisition Education and Training Base

a. DSMC shall designate DoD sponsoring schools and DoD certified schools based on recommendations of the Interservice ACE Program Action Group. These institutions shall constitute the DoD Mandatory Acquisition Education and Training Base and include elements of the Army, Navy, Air Force, and Defense Agencies (See page A-9, para V). Sponsoring and certified schools are distinguished from certified course offerors by their capacity to perform a wide variety of training functions including training instructors, developing and revising curriculum, maintaining a student database, etc.

b. DSMC shall ensure that DoD sponsoring schools and certified offerors within DoD are adequately supported and maintained to sustain these institutions as elements of the DoD Mandatory Acquisition Education and Training Base.

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c. DSMC shall designate and support, as appropriate, a lead contracting activity where course offerings of DoD mandatory acquisition training courses are required to be provided by contract.

d. DSMC shall promulgate detailed procedures on budget preparation and budget process starting with the FY90 budget implementation and each year thereafter to support the succeeding fiscal budget implementation.

2. Establishment of a New Mandatory Defense Acquisition Course

a. Requests for the establishment of a new Mandatory Acquisition course may be generated by any DoD Component or DoD functional Element.

b. Requests will contain the following documentation:

(1) A general description and outlines
(2) Criterion-referenced learning objectives
(3) Level and learning domain to which the course should be aimed
(4) Estimated training requirements--throughput
(5) Suggested course length and frequency
(6) Required starting date
(7) Type and numbers of resources required
(8) Costs, including appropriate offsets against existing mandatory acquisition courses which may be eliminated or modified if the new course is adopted.

c. The Interservice ACE Program Action Group will:

1. Review for:

(a) Applicability
(b) Feasibility, including the identification of required funding sources
(c) Validity
(d) Duplication of existing courses
(e) Throughput Requirements

2. Coordinate development of a Program of Instruction (POI) or curriculum outline for the course.

3. Add any appropriate comments.

4. Forward the request with appropriate recommendation to the Commandant, DSMC.

d. If the Commandant agrees with the request, he shall forward an approval recommendation through the appropriate DoD Functional Board or Advisor or Component Service Acquisition Executive to the USD(A) for final approval/disapproval.

e. The Commandant, DSMC, in consultation with the appropriate DoD Functional Board or Advisor, the DoD Component, and the CAC shall assign the responsibility for the curriculum development to a DoD Component school with competence in the subject area. All Components must be notified of the general objectives and content of the new course and allowed a reasonable amount

of time to provide input, if desired. During the development process, direct communication is authorized for coordination among the schools, the Components, and the Interservice ACE Program Action Group. The plan for the course will include an estimate from the Components of the projected requirements for the course and information on resources required for support.

f. When completed, the lesson plans, POI outline and any comments concerning non-coordination by interested DoD Components will be submitted by the sponsoring school to the CAC and the ACE Program Office for review.

g. After resolution of any existing differences, the designation of the sponsoring proponent by DSMC, and approval by the USD(A), the course shall be developed within an agreed timeframe. Development will be competency-based format, with test questions based on the learning objectives, targeted to the appropriate learning domain. If additional resources are required to present the course, the sponsoring school will process the resource request through their DoD Component Headquarters to the Commandant, DSMC. This request shall include a detailed justification for any additional resources. If adjustments cannot be made in the Defense Acquisition Education and Training program base by the Commandant, DSMC, then the request will be forwarded to USD(A) for action.

h. Upon approval of the course program, the course description and other pertinent data will be provided by the sponsoring school to the ACE Program Office, DSMC, to be included in the Defense Acquisition Education and Training Catalog.

3. Disestablishment of an Existing Defense Acquisition Management Course

a. When it is determined by the ACE program office, a Component or a Service Acquisition Executive that a mandatory course is no longer required, a request to disestablish it will be submitted to the Commandant, DSMC, through the appropriate DoD Functional Board or Advisor, giving the justification for the proposed action.

b. The Commandant, DSMC will coordinate the request with all Components and the appropriate DoD Functional Board or Advisor. After coordination has been completed, the request will be sent to the USD(A) for approval/disapproval. The USD(A) will advise the Commandant, DSMC, of the action to be taken.

4. Procedures for Reviewing Programs of Instruction of Defense Acquisition Management Courses

a. Reviews will be scheduled on an annual basis. Each sponsoring school will provide an annual schedule on a fiscal year basis to the Commandant, DSMC for the review of Defense Acquisition Courses. Sponsoring schools will schedule course reviews in coordination with other certified schools, course offerers, the Interservice ACE Program Committee and the CAC. Only those courses which the appropriate DoD Functional Board or Advisor or the Commandant, DSMC believe need review will be included in the schedule. Field user activities may provide inputs or request a course be included for review by submitting their request to their Headquarters Functional Component. All materials (texts, POI's, student guides, etc.) may be examined as part of the review process.

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b. Reviews scheduled due to specific requests: Each sponsoring/ certified school presenting a Defense Acquisition Course will initiate a review of its POI or complete lesson plans if requested by the Commandant, DSMC, or a Functional Board or Advisor.

c. Procedures for conducting reviews.

(1) Sponsoring schools will establish course reviews in coordination with the Commandant, DSMC, and will invite participation in the course reviews by Components, the CAC, and the certified schools. If on-site coordination at the school is required, any funding for travel and per diem for participants will be provided by their parent commands.

(2) As a result of the review the sponsoring schools in consultation with the applicable DoD Functional Board or Advisor and the Commandant, DSMC are authorized to approve minor revisions of course content and corresponding student materials and examination questions for the Defense Acquisition Education and Training Courses. A time frame for completion of the revision process will be determined at the end of the review session, to ensure that new course material will reach all certified offerors in reasonable time. Major revisions (more than 25 percent of total curriculum) must be coordinated with the appropriate DoD Functional Boards or Advisors, the Interservice ACE Program Action Group, and the Commandant, DSMC, and Components.

5. Administrative Procedures for the Presentation Of Mandatory DoD Contracting/ Acquisition Courses By Other Than The Sponsoring School

a. Any government school or activity desiring authority to present acquisition courses must be specifically certified by the ACE Program Office, DSMC, for each course of instruction. Prior to submitting a request to the ACE Program Office, the government school activity shall coordinate with the sponsoring school to ensure they have a thorough understanding of the manner in which the course is to be presented and to describe the resources available to present the course. The CAC is to recommend approval/disapproval of the request prior to ACE Program Office action.

b. Activities desiring to host on-site offerings of any course shall submit a written request through their respective agencies to the sponsoring school with an information copy to the ACE Program Office, DSMC.

c. If the sponsoring school is unable to support the request for an offering, the sponsoring school shall refer the requesting activity, in writing, to other government schools authorized to present the course.

d. The sponsoring school and all certified government schools shall follow the USD(A) approved Program of Instruction.

e. The sponsoring school shall provide a single copy of current student and instructor materials on at least an annual basis to other certified course offerors. All updates to material shall be provided as soon as a change is completed. These updates can be provided as a changed page or an entire copy of a student or instructor guide or examination. The sponsoring school is not responsible for reproduction of student and instructor materials for other certified course offerors.

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f. The sponsoring school shall provide a single copy of appropriate examination material upon request by other certified course offerors which are the only examinations authorized. The sponsoring school is not responsible for reproduction of examination materials. Examinations administered by certified schools are to be given strictly in accordance with examination procedures utilized by the sponsoring school. Examinations are to be administered by test control officers. The past/fail criteria and final course grades will be in accordance with established standards.
established by the sponsoring school.

g. Instructor qualification, training, and supervision are the responsibility of each certified course offeror.

h. Each certified offeror shall provide all administrative student information and examination results as required by the sponsoring school.

C. Publication of the Defense Acquisition Education and Training Catalog

The Defense Acquisition Education and Training Catalog (reference (h)) is the official source of information concerning courses of instruction offered in accordance with DoD Directive 5000.52, "Defense Acquisition Education and Training Program." This catalog provides essential information concerning the mandatory acquisition courses that are available in the Department of Defense. The catalog will be published by the DSMC with inputs and assistance from the Services and Defense Agencies.

D. Reporting Procedures

1. Requirements

a. Reports of projected requirements for the next five fiscal years for the courses listed in the Catalog will be submitted annually prior to December 1 by the Components to the Commandant, DSMC. Appropriate guidance will be provided by DSMC for submission of the requirements.

b. By March 1 of each year or anytime, all certified course offerors will notify the Commandant, DSMC when they are unable to provide sufficient spaces for requested resident and on-site instruction to fill user requirements. Alternate methods of accomplishment such as additional on-site instruction, On-the-Job Training, or correspondence courses will be offered wherever possible.

2. Quotas and Class Schedules

The Commandant, DSMC, will provide to each DoD Component, based upon their budget submission and quota requirements, the approved program funding. The DoD Components will be responsible for the administration of the quotas and the approved funding level to meet the annual mandatory requirements.

3. Alternate Course Completion

DD Form 2518, Fulfillment of DoD Mandatory Training Requirement, will be used for personnel who through experience, education, or alternate training programs have fulfilled the mandatory education and training requirements. The

Components will ensure that personnel records are updated to reflect this equivalency credit. The approved DD Form will be filed in the employee's Field Personnel Records.

E. Training Completion Certificates

Upon successful fulfillment of a DoD mandatory training requirement, an employee shall receive a DoD certificate of training, DD Form 2491. The following information will be included on the certificate and provided in summary form to the ACE Program Office:

a. Name of course completed.
b. Name of course offeror.
c. Method of fulfillment (e.g., residence, on-site, seminar, corresponence, satellite, equivalent course, experience, etc.
d. Name of mandatory course fulfilled. If alternate course completion is used to fulfill the training requirement, the approving official for the DD Form 2518 will also sign the DD Form 2491.

Attachments - 2
1. DD Form 2518
2. Charter - Curriculum Advisory Council

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FULFILLMENT OF DOD MANDATORY TRAINING REQUIREMENT

Privacy Act Statement

AUTHORITY: EO 9397, November 1943 (SSN).

PRINCIPAL PURPOSE(S): To evaluate and determine the status of mandatory acquisition training. The purpose of soliciting the Social Security Number is for positive identification.

ROUTINE USE(S): The information provided is used for verification by the individual's supervisors and the individual's personnel office to ensure that mandatory acquisition training requirements have been fulfilled.

DISCLOSURE: Voluntary; however, failure to provide requested information may preclude an effective evaluation to determine an individual's status of mandatory acquisition training. Failure to provide the Social Security Number will not nullify the purpose or use of the requested information.

SECTION I - INDIVIDUAL REQUEST *(Type or print in ink)*

1. NAME *(Last, First, Middle Initial)*	2. COURSE NUMBER
3. COURSE TITLE	4. COURSE LEVEL *(Entry, Intermediate, Senior, etc.)*

5. STATEMENT

I propose that the skills and knowledge provided by the DoD mandatory course identified above have been obtained by experience, education, equivalency test, or alternate training. Based on the attached justification, I request that this be considered fulfillment of the mandatory training requirement indicated.

6. SIGNATURE	7. DATE SIGNED *(YYMMDD)*	8. SOCIAL SECURITY NUMBER
9. TITLE	10. SERIES	11. GRADE/RANK
12. OFFICE SYMBOL	13. LOCATION	14. CURRENT LEVEL *(Entry, Intermediate, Senior, etc.)*
15. DATE ENTERED CURRENT LEVEL *(YYMMDD)*		

SECTION II - SUPERVISOR'S RECOMMENDATION

16. CONCURRENCE/NONCONCURRENCE *(X one)*

	a. CONCUR - INDIVIDUAL HAS GAINED REQUISITE SKILLS AND KNOWLEDGE AS PROPOSED IN SECTION I.		b. DO NOT CONCUR *(Return request to individual)*

17. SUPERVISOR SIGNATURE		18. DATE SIGNED *(YYMMDD)*
19. DUTY TITLE	20. OFFICE SYMBOL	21. LOCATION

SECTION III - DISPOSITION

22. APPROVAL/DISAPPROVAL *(X one)*

	a. APPROVED		b. DISAPPROVED

23. SIGNATURE OF APPROVING OFFICIAL		24. DATE SIGNED *(YYMMDD)*
25. DUTY TITLE	26. OFFICE SYMBOL	27. LOCATION

DD Form 2518, SEP 88 *Previous editions are obsolete.* 271/2

ATTACHMENT 2 TO APPENDIX A
CHARTER OF THE CURRICULUM ADVISORY COUNCIL OF THE USD(A) ACQUISITION

A. Purpose.

This charter describes the mission, responsibilities, composition, and operation of the Curriculum Advisory Council (CAC) of the Office of the Under Secretary of Defense for Acquisition.

B. Mission.

The mission of the CAC is to advise the Commandant DSMC as the Executive Agent of the USD(A), through the Interservice ACE Program Action Group on the curricula and supportive instructional methods and materials for the DoD mandatory and equivalent acquisition courses.

C. Responsibilities. The CAC will:

1. Be composed of the organizations providing mandatory courses in the DoD Acquisiton Education and Training base.

2. Provide a forum to exchange ideas and review the teaching methods and quality of the mandatory acquisition courses.

3. Coordinate the development and/or revision of the mandatory courses, ensuring that all unusual or special training and education requirements throughout DoD are addressed and satisfied in a timely fashion.

4. Recommend the elimination of unnecessary duplication of courses among the schools.

5. Promote and share non-traditional instructional methods and technology efforts and results.

6. Recommend courses for appropriate certification in meeting mandatory training and education requirements.

7. Foster and exchange expertise among the CAC members, particularly in sponsoring and sustaining a guest lecture program.

8. Provide school no-show data on a quarterly basis or as requested.

9. Promote and ensure the development of DoD-wide equivalency tests.

10. Facilitate appropriate communications and crossfeed relationships among the various Service and DoD schools.

D. Composition.

The members of the CAC will be senior representatives from the organizations shown below. The Chairperson will be the Commandant, DSMC or his designated representative who will appoint a recording secretary for the meetings.

1. Office of the Under Secretary of Defense, Acquisition.

2. Defense Systems Management College, Fort Belvoir, Virginia

3. Air Force Institute of Technology, Wright-Patterson, AFB, Ohio

4. Army Logistics Management College, Fort Lee, Virginia

5. Director, Contracts and Business Management, Office of the Assistant Secretary of the Navy (S&L), Arlington, Virginia

6. Lowry Technical Training Center, Lowry AFB, Colorado

7. Army Management Engineering College, Rock Island, Illinois

8. Systems Acquisition School, Air Force Systems Command, Brooks AFB, Texas

9. Workforce Effectiveness and Development Division (OCP), Defense Logistics Agency, Cameron Station, Alexandria, Virginia

10. Navy Acquisition Management Training Office, Norfolk, Virginia

11. Naval Facilities Contracts Training Center, Port Hueneme, California

12. Headquarters Air University (AU/XE), Headquarters Air Training Commands (TTOA), Maxwell AFB AL

The Federal Acquisition Institute will be a consulting member.

Additional members to the Council may be recommended by Council Members and approved by the Commandant, DSMC.

E. Operation.

All meetings will be held at the call of the Chair. The CAC will meet at least twice each fiscal year. The DSMC ACE program office will receive items for discussion from the Council Members and prepare the agenda and minutes of each meeting.

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APPENDIX B

PROGRAM MANAGER/DEPUTY PROGRAM MANAGER

A. Experience, Education, and Training Requirements for Program, Manager, Major Programs

For individuals designated Program Manager of a major program as defined by DoDD 5000.1 (reference (a)), the following shall apply. The mandatory requirements of this section can only be waived by The Secretary of the Military Department.

1. Education:

a. A baccalaureate degree or an advanced degree (i.e. beyond baccalaureate) in a technical, scientific, or managerial field is mandatory. Advanced technical education of a long-term nature in service schools e.g. AFIT and Naval post graduate school level, may be used to satisfy the requirement.

b. A master's degree in an appropriate field is desired.

2. Training:

a. Successful completion of the Defense Systems Management College (DSMC) Program Management Course (PDS* Code BBW) or a comparable, certified program management course at another institution approved by USD(A) is mandatory.

b. Successful completion of the prescribed curriculum of a designated Intermediate Service School or an equivalent course for civilians is mandatory. Successful completion of prescribed curriculum of a designated Senior Service School, or an advanced degree, or a command assignment, or a joint service assignment in acquisition, may substitute for this requirement.

c. Successful completion of the prescribed curriculum of a Senior Service School is desired.

3. Experience:

At least 8 years of experience in the acquisition, support, and maintenance of weapon systems--at least 2 years acquired while assigned to a procurement command--is mandatory. Not more than 40 months of time spent pursuing a program of postgraduate study in a technical or management field, or attending the DSMC Program Management Course (or a comparable, certified program management course at another institution approved by USD(A)) normally should be counted toward the 8-year experience requirement.

*PDS = Personnel Data System

B. Experience, Education and Training Requirement for Program Manager, Non-major Program:

For individuals designated Program Managers of non-major programs, the following standards shall apply. The mandatory standards may be waived only at the General or Flag officer or Senior Executive Service (SES) level.

1. Education:

a. A baccalaureate degree or advanced degree (i.e. beyond the baccalaureate) in a technical, scientific, or managerial field is mandatory. Advanced technical education of a long-term nature in service schools, e.g. AFIT and Naval post graducate school level, may be used to satisfy this requirement.

b. A master's degree in an appropriate field is desired.

2. Training:

a. Successful completion of the DSMC Program Management Course, or a comparable certified program management course approved by the USD(A) at another institution, is mandatory.

b. Successful completion of prescribed curriculum of a designated Intermediate Service School or an equivalent course for civilians is desired.

3. Experience:

At least 3 years of experience in the acquisition, support, and maintenance of weapon systems--at least 1 year acquired while assigned to a procurement command--is mandatory. Time spent pursuing a program of post-graduate study in a technical or management field, or attending the DSMC Program Management Course (or a comparable program management course at another institution approved by the USD(A)), may be counted for up to 2 years of the experience requirement.

C. Deputy Program Manager, Major or Non-major Program

For individuals designated, or with the responsibilities of, Deputy Program Managers of major or non-major programs, the following standards shall apply. The mandatory standards may be waived only at the General or Flag officer or SES level. The term Deputy Program manager includes those individuals serving as the head of a funtional area in a program office without a specific training program herein described.

1. Education:

a. A baccalaureate or advanced degree in a technical, scientific, or managerial field is mandatory. Advanced technical education of a long-term nature in service schools may be used to satisfy the requirement.

b. A master's degree in an appropriate field is desired.

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2. Training:

a. Successful completion of the DSMC Program Management Course, or a comparable, certified program management course at another institution approved by USD(A), is desired.

b. Successful completion a designated Intermediate Service School or an equivalent course for civilians is desired.

3. Experience:

a. Deputy Program Manager, Major System. At least 3 years of experience in the acquisition, support, and maintenance of weapon systems or in acquisition--at least 1 year acquired while assigned to a procurement command--is mandatory.

b. Deputy Program Manager, Non-major System. At least 1 year of experience in the acquisition, support, and maintenance of weapons systems performed while assigned to a procurement command is mandatory.

D. Career Consideration

1. DoD Components are responsible for the actions required to achieve the following:

a. To achieve and maintain a reservoir of well-trained and talented junior-level individuals ready to move into the senior-level positions, appropriate career fields must be developed and maintained. These fields must provide line and staff careers within the military and civilian professional series that support acquisition management.

b. Career opportunities shall be established to attract, develop, retain, and reward outstanding military officers and civilian employees for demonstrated performance in assignments designed to prepare managers for the positions of Program Managers or principal deputies and assistants. Civilian career programs shall be developed under the guidelines contained in DoD Instruction 1400.25-M, Chapter 950.

2. In establishing these civilian and military career fields, the DoD Components must, as a minimum, perform the following tasks:

a. Determine the qualifications for entry to and advancement in the individual fields, including the performance standards, experience, level of training, and formal education appropriate for each rank or grade. Conditional entry and upward mobility paths should be provided for individuals not qualified fully for entry, with high standards for unconditional entry and guaranteed return to previous employment for those not achieving entry qualification.

b. Determine the approximate number of personnel at each rank or grade and specialty required to fill each career field for the foreseeable future. Ensure that grade levels are commensurate with the responsibility, authority, program accountability, and broad supervision exercised over the functional activity. The grade structure in program offices should recognize

the great importance and responsibility associated with the acquisition of the weapons that will defend this country well into the 21st century.

c. Develop military and civilian career plans that lead to the satisfaction of the requirements to include training and professional education requirements, identification of the mandatory and desired types and amounts of experience needed to assume upper level program management positions, administrative controls for these plans and the acquisition work force enrolled in these plans, and provisions for advancement based on demonstrated performance.

d. Maintain current rosters of the civilian and military personnel who have formally indicated a desire to become professionals in a recognized acquisition-related job series, specialty, or subspecialty, and the current qualifications of each individual on the roster.

e. Institute methods that centralize systems aquisition management employment opportunity information so it is readily accessible to interested individuals.

f. Create maximum assignment flexibility for civilian employees within existing OPM regulations, including mobility agreements. Inter-Component rotational assignments should be considered for developmental training as outlined in DoD CBM Chapter 950 (Reference (l)). Permanent civilian employees may be placed in project management positions on a permanent type of reassignment or promotion, but with the understanding that they may be placed later in a position of equivalent grade and pay in a functional organization of the DoD Component.

g. Provide for release from and selection out of the acquisition management career fields, if the results of periodic reviews of performance indicate that such actions are appropriate.

E. Training

1. Each DoD Component is responsible for identifying and training individuals to establish a cadre of military and civilian personnel adequate to meet its future needs for leadership in system acquisition management.

2. Professional education and training programs should provide for progressive growth at the entry, intermediate, and senior levels to meet the standards set forth above, and those standards determined and set individually by each Component. Civilian employees shall be trained in accordance with DoD CPM Chapters 410 and 412 (references (m) and (n)).

F. Personnel Management

1. Performance measurements shall be developed and applied to ensure that only the most competent individuals are retained and advanced in system acquisition management career fields.

2. The Program Manager shall be held accountable for performance within his or her assigned responsibility. Performance evaluations shall take into account program-peculiar conditions.

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3. Tenure of assignments must be sufficient to ensure not only effective management and evaluation, but also continuity of management. P.L. 98-525 (reference (k)) requires a military officer assigned as a program manager of a major defense acquisition program to have a tour of duty (a) of not less than four years or (b) until completion of a "major program milestone" as defined in DoD Directive 5000.1. This tenure requirement may be waived by the Secretary of the Military Department concerned, who may not delegate this responsibility.

a. For the purpose of this tenure requirement, "major program milestone" is defined as the occurrence of a predefined and measurable program achievement (such as a completed test, a capability demonstration, a product acceptance, or a major contract award or delivery). The transition need not coincide with a Defense Acquisition (DA) Milestone presentation or decision. The transition methodology chosen by the DoD Component should be such as to aid in program management performance evaluation and to reduce the likelihood of transferring hidden problems. There should be a period of overlap for the outgoing Program Manager and his or her replacement.

b. Similarly, the rotation or assignment of key assistants should be controlled by the needs of the Program Manager to ensure a proper balance between effectiveness and continuity of management. No tenure policy stated above shall be interpreted to require that an individual whose professional performance of duty is not satisfactory to the reporting senior be retained in his or her position.

4. Opportunities for advancement in the acquisition career fields shall be competitive with those of contemporaries in operational, line, and command positions. Where boards are established for the purpose of selecting individuals for advancement, they shall include experienced system acquisition managers to ensure that only the best qualified individuals, based on demonstrated performance, are selected for promotion.

5. As indicated in the earlier subsections, a performance monitoring system for all personnel who are involved in the recognized career fields of defense system acquisition management shall be maintained by each DoD Component. Selection for key positions in management of major defense systems normally shall be from among those so tracked, and heavy reliance shall be placed on performance records, particularly in acquisition-related assignments, for determination of those best qualified.

6. Effective 1 July 1990, General or Flag officers (or civilian equivalents assigned acquisition duties) may be assigned to duty in a procurement command only if they meet the education, training, and experience requirements described herewith. This requirement may be waived only by the Secretary of the Military Department.

7. Personnel should be selected on the basis of skills, experience, and the demonstrated performance needed to perform successfully the contemplated assignment within a program, regardless of military or civilian status.

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APPENDIX C

RACTING SERIES

A. General Description:ng Series (GS-1102 & comparable military)

Includes: Contract N Contract Specialist, Contract Administrator, Procurement Analyst, Pri

1. Level I: GS 5/01/03, enlisted E1/E7.

a. Experience: by a baccalaureate degree.

b. Education: te degree including or supplemented by at least 24 semester hours ng, economics, business law, procurement, or management-related st

c. Mandatory Tr nagement of Defense Acquisition Contracts (basic) 8D-4320 (JT) - - Code: BDQ); Principles of Contract Pricing QMT 170 (JT) - 3 weeks (DR)

d. Duties:

(1) Contract/Negotiator - Performs a variety of contractual functions: solicits, negotiates service, supply, or construction requirements; prepares ntation, conducts post-award administrative monitoring of deliverabl; conducts meetings with contractors, monitors contractor performas amendments/modifications as needed, negotiates changes to contra assists higher-graded contract specialists in the preparation of a of contract requirements at higher monetary value.

(2) Contractor - Administers a variety of service, supply, or construction th standard--i.e., non-unique contractual terms and conditions; ngs with contactor to clarify issues; monitors contractor perfprogress; negotiates minor changes to contractual terms; and acting officers, as necessary.

(3) Price Aforms evaluation of price proposals; reviews audit findings ith senior Cost/Price Analyst; prepares recommendations for negotives; reviews and prepares price negotiation memoranda; ates in negotiation process, as required.

2. Level II: GS 9 03/04, enlisted E7/E9.

a. Experience: experience of increasing complexity and responsibility, includin year at the GS 7 level or equivalent. Familiarity with the vanal and technical areas related to acquisition and contract mana

b. Education: : degree with 24 semester hours in accounting, economics, businessment, or management-related studies. It is recommended that indi graduate studies leading to a master's degree in business adminocurement, management, or related fields that will prepare for enior level.

c. Training: Mandatory

(Note: The Head of a DoD Contracting Activity should require a civilian or military member to complete mandatory contracting courses before appointment as a contracting officer.)

(1) If Job Is Primarily Pre-Award Oriented

Management of Defense Acquisition Contracts (Advanced) 8D-F12 (JT) - 2 weeks and 4 days (PDS Code: BDN)

Government Contract Law PPM 302 (JT) - 2 weeks (PDS Code: BDP)

(2) If Job Is Primarily Post-Award Oriented

Advanced Contract Administration PPM 304 (JT) 2 weeks (PDS Code: BDO)

Government Contract Law PPM 302 (JT) - 2 weeks (PDS Code: BDP)

(3) If Job Primarily Oriented to Cost and Price Analysis

Quantitative Techniques for Cost & Price Analysis QMT 345 (JT) - 2 weeks and 4 days (PDS Code: BCC)

Government Contract Law PPM 302 (JT) - 2 weeks (PDS Code: BDP)

(4) If Involved In Acquisition of Information Resources (In Addition to the Aforementioned Tracks)

Defense Contracting for Information Resources ALMC-ZX - 2 weeks (PDS Code: PDY)

Note: Individuals performing both pre-and post-award procurement functions should take all the training

d. Training: Mandatory for Contracting Officers Within 1 Year of Assignment to a Major Program.

~~Major~~ Systems Acquisition for Contracting Personnel - 2 weeks (PDS Code: BCN)

e. Duties:

(1) Contract Negotiator

(a) Serves as contract negotiator responsible for the solicitation, analysis, evaluation, and negotiation of contractor proposals for research and development activities of one or more organizations. Procurements cover all contractual instruments through all phases of acquisition, requiring coordination, analysis, and detailed negotiation. Procurements also may cover options for follow-on work; unsolicited proposals, which may generate problems in proprietary rights, data, or patents; agreements with state or municipal jurisdictions; and extensive subcontracting.

(b) Performs procurement planning and, in coordination with the technical program office, develops the contractual strategy to be used in the procurement of a specific contract program. Prepares required justifications and authorizations. Prepares and assembles solicitation documents. Processes and evaluates proposals received. Analyzes proposals, performs cost analyses, makes competitive range determinations, and develops a prenegotiation position. Negotiates individual contracts within the program to obtain services for the Government at a fair and reasonable cost within acceptable time frames. Designs final contract and makes recommendation for awards.

(c) Functions as team leader during contract negotiations. Coordinates throughout the procurement process with representatives from the program office, financial office, office of Counsel, and the small and disadvantaged business office representitive. Analyzes data provided.

(d) Serves as the principal representative in conducting agency contractual requirements.

(2) Contract Specialist

(a) May be involved in highly specialized R&D programs, prototype development, limited production, follow-on activities, full-scale production services, installation contracting, or construction acquisitions that require telephonic or face-to-face discussions to resolve technical issues and contractual terms and conditions mutually agreeable to the parties.

(b) Plans and coordinates contract strategy with the program office, prepares analysis and functions as team leader during negotiations, prepares contractual documents for award, and acts as principal point of contact on award document. Works independently and in concert with other contracting personnel to ensure adequate competition reviews, acts as policy review assistant for non-complex contractual actions, and reviews facilities plans and modernization program.

(c) Negotiates and administers a variety of contractual instruments; monitors contractor financial status to ensure against over obligations; reviews technical specialists' reports regarding contractor performance, progress and expenditures; acts as Contacting Officer's focal point for the contractor and recommends actions on contractor requests for changes in contractual terms and conditions; monitors requests for Government property and ensures timely receipt; reviews requests for progress payments; and requests audit determination on pricing actions and overhead rates.

(d) Has knowledge of policies and procedures regarding inspection and acceptance of contract end items; represents the Government in termination for default or convenience, claims, and settlements; and performs close-outs of contracts, ensuring correct disposition of funds, property, special tooling, and equipment.

(3) Contract Administrator

(a) Administers a wide variety of complex, contractual instruments while typically assigned to a contract administration team. Contracts include fixed-price contracts with redetermination or escalation provisions,

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incentive contracts and cost-plus fixed-fee contracts and a group of less complex contracts: firm fixed-price, indefinite quantity, bailment and facilities. Reads, analyzes, and interprets a variety of regulations, directives, assigned contracts, purchase orders, change orders, and supplemental agreements in order to ensure that the contracts shall be administered with the intent and provisions thereof. Makes necessary investigations and determinations and recommends and approves progress payments, Government-owned facilities and property, contractors, accounting systems, and purchasing procedures. Recommends and approves various policies and procedures based on information, data, and recommendations of various technical personnel. Performs spare parts negotiations, definitizations, and price redeterminations. Negotiates other price adjustments, delivery schedules, and overhead rates to the point of signature. Coordinates contractors' requests for deviations with technical personnel, and makes substantial recommendations regarding acceptance.

(b) Develops recommendations for determinations and findings of fact in cases of disputes between the Government and the contractor. Confers with contractor's executive personnel to reconcile and clarify problems and situations. Responsible for reviewing, recommending, approving, or disapproving such matters as expenditures incurred on cost-reimbursement contracts, estimates of percentage of completion of payment of fixed-fee, special advance payment bank accounts, overtime requests, subcontracts, and purchase orders, etc. Responsible for administering contracts designated by Administrative Contracting Officers (ACOs) in other geographical areas to the extent delegation of authority permits. Assists in pre-award surveys. Requests audit determinations on pricing actions and overhead rates. Advises Government and contractor personnel on policies and procedures regarding inspection and acceptance of contract end items; and performs close-out of contracts, ensuring correct disposition of funds, property, special tooling, and equipment.

(4) Procurement Analyst

(a) Is responsible for reviewing contracts and contracting actions for a variety of supply, service, and construction contracts; for developing guidance; and for providing technical advice, particularly in cases involving extensive negotiation and special or unusual contract terms. Requirements typically range from standard to specialized items, e.g., equipment or services needed to support a research and development activity; ADP equipment, software, and related services; and alteration and repair projects.

(b) Advises management and contracting officers on matters pertaining to contracting policies and procedures. Provides assistance upon request regarding specific situations or problems. Provides assistance upon receipt of changed procedures imposed by higher headquarters involving regulations, laws, and good business practices.

(c) Conducts reviews of contracts or contract changes within predetermined categories based on dollar value, method of acquisition, and other factors. Reviews procurement packages for appropriate contract type; pricing provisions; selection of sources; acquisition method, determination, and findings; documentation; clarity of contract terms; propriety of cited funds; and need for issuance of unpriced contractual documents.

(d) Develops guidance material for activity contracting personnel. Publishes informational material to state, clarify, and explain regulatory and policy changes; and to note recurring errors observed during contract review. Conducts training of contracting personnel to improve acquisition practices.

(5) Price Analyst

Reviews and analyzes cost and price proposals for basic contract procurements, supplemental agreements, and contract changes; develops negotiation objectives in concert with contracting office personnel; performs overhead reviews; assists in negotiation of final cost objectives and price redeterminations; participates in Should Cost Analysis teams; prepares reports of price analysis, including review of audit and technical advice for forwarding to the contracting officer; assists contracting officer in resolving routine cost and accounting issues; performs analysis of profit; ascertains reasonableness of proposed labor and overhead rates, and of labor escalation factors through various indices; reviews price negotiation memoranda for compliance with audit tracking; monitors cost accounting systems; and reviews adequacy of costs for payment procedures.

3. Level III: GS 13/15, Officer 04 and above.

a. Experience: A minimum of 4 years of contracting experience of increasing complexity and responsibility, including at least 1 year at the preceding grade level or equivalent. Demonstrated knowledge of procurement policy and procedures sufficient to conduct negotiations and monitor contractor performance on complex contractual actions or extensive programs. Demonstrated knowledge of negotiation and post-award procedures and negotiation ability to represent the Government in contract terminations, claims, and settlements. Demonstrated skill in major weapon system or other complex negotiations, ability to prepare necessary documentation to support all business clearances and gain award approval, and ability to formulate policies an procedures. Demonstrated knowledge, skill, and ability to analyze financial data, and to arrive at fair and reasonable negotiation objectives.

b. Education: Master's degree is highly desirable in business administration, management, procurement, or a contract-related field.

c. Training: Mandatory

(1) If Job Is Primarily Pre-Award Oriented

Management of Defense Acquisition Contracts (Executive) ALMC-B5 (JT)[1] - 1 week (PDS Code: BCL)

Defense Acquisition and Contracting Executive Seminar ER (JT)[2] - 1 week (PDS Code: BBS)

(2) If Job Is Primarily Post-Award Oriented

Contract Administration (Executive) PPM 057 (JT)[1] - 1 week (PDS Code: BCM)

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Defense Acquisition and Contracting Executive Seminar - ER (JT)[2] - 1 week (PDS Code: BB3)

(3) If Job Is Primarily Oriented To Cost and Price Analysis

Advanced Contract Pricing QMT 540 (JT) - 2 week (PDS Code: BAD)

Defense Acquisition and Contracting Executive Seminar ER (JT)[2] - 1 week (PDS Code: BB3)

(4) If an 1102 Civilian or Equivalent Military assigned to a Major Systems Acquisition or Who Devotes 50 Percent of Their Time to a Major System(s) and the course requirement was not completed at Level II.

Major Systems Acquisition for Contracting Personnel DSMC-31 - 2 weeks (PDS Code: BCN)

d. Duties:

(1) Contract Specialist and Negotiator

Conducts discussions on significant, complex negotiation actions, including termination of contracts; acts as team leader in developing negotiation objectives by coordinating the requirements for awards. Reviews all business clearances and termination and claim settlements for accuracy and submits them for higher-level approval, as required. If the contract specialist has a warrant, he or she reviews and evaluates all Government objectives developed by subordinates before negotiation authorization is granted. Determines extent of competition through maximum use of existing source identification systems, socioeconomic processes, and any other means to maximize competition. Fully documents and substantiates decisions of negotiation agreements on behalf of the Government, has skill in all negotiation techniques, and is able to meet and deal with private industry representatives and perminent managers or experts and present positions regarding proposed negotiation actions.

(2) Contract Administrator

(a) Administers contracts, usually extending over several years covering research, development, testing, production of complex equipment or programs, services, or construction. Ensures that the interests of the Government are protected at all times and that the contractor fulfills the contractual agreements. Makes necessary investigations and determinations. Performs such functions as: approves contractor's progress; approves payment of contractor costs; acts as team captain and, in this capacity, obtains technical and specialized investigation, advice, and data from such personnel as auditors, price analysts, quality-assurance representatives, industrial specialists, and property administrators; coordinates contractor requests for deviations with buying activities and makes recommendations regarding contract item acceptance;

1. Also Mandatory For GS-12/Comparable Military Contracting Officers
2. Should Be Attended Every 3-5 Years

negotiates price adjustments and delivery schedules; prepares determinations and findings of facts in cases of disputes between the contractor and the Government; personally initiates and signs correspondence, vouchers, memoranda, reports, and other documents that are binding on the Government; reconciles previously obligated funds and issues Provisioning Order Obligating Documents, etc. Responsible for consenting to the placement of subcontract and performing related administrative duties. Monitors the performance of the prime contractor and subcontractors when progress payments are being made to the prime contractor. Confers with contractor as needed to clarify misinterpretations of contractual matters; negotiates forward pricing rates. Analyzes progress of work to promote more effective operations. Participates in conferences to develop short and long- range plans.

(b) Attends conferences to develop short and long-range requirement plans. Assists in developing policies on contract management and organizational operations. Supports a wide variety of acquisition officials, customers, and representatives of the individual activity as well as coordinating with participating agencies.

(3) Procurement Analyst

Responsible for the analysis and evaluation of contracting management matters, and the initiation, development, and recommendation of contracting policies, procedures, guidance, and control for subordinate contracting activities within a department or agency.

(a) Initiates, develops, and recommends contracting policies and procedures for the guidance and control of subordinate contracting activities. Evaluates and recommends disposition on requested waivers to statutory requirements.

(b) Reviews, evaluates, and provides specific guidance concerning contracting policies and procedures relative to Government facilities, special tooling, special test equipment, component breakout, warranties, recovery of nonrecurring costs, high-dollar spare parts breakout program, industrial preparedness, production planning, and interdepartmental coordinated procurement.

(c) Participates in the development of policy within the agency or department.

(d) Provides advice and guidance on contracting matters to project managers and contracting officers at subordinate contracting activities.

(e) Performs policy and compliance reviews on complex actions from the strategy phase through award; develops policy, procedures, and implementing guidance, as required; and responds to higher level activities' requests for information on a variety of procurement issues.

(4) Price Analyst

(a) Performs as Cost and Price Analyst in reviewing, evaluating, and assisting contracting personnel in developing negotiation objectives and strategies for major weapon systems or acquisitions; assists senior-level

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management in formulating policies, guidance, and procedures to manage the acquisition function in a highly professional manner; reviews and evaluates audits for price and cost evaluations; and consults with contractor managerial personnel and auditors, as necessary, in resolution of pricing discrepancies.

(b) Has knowledge of and ability to analyze current price trends and cost factors relative to evaluation of contractor proposals, including ability to perform extensive detailed analysis on individual elements of cost and profit.

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APPENDIX D

PROPERTY ADMINISTRATOR SERIES

A. General Description: Property Administrator Series (GS-1103 & comparable military)

1. Level I: GS 5/7, Officer 01/04, E 1/7

a. Experience: Three years of general experience, of which 1 year must be equivalent to the GS-4 level. Knowledge and understanding of administrative, professional, analytical, or other work related to general business and industrial practices are required. Completion of a full 4-year course of study at an accredited college or university satisfies 3 years of general experience. (An academic year is equivalent to 9 months work experience.)

b. Education: Associate's degree or equivalent is desired.

c. Training: Mandatory

Industrial Property Administration PPM 151 (JT) - 3 weeks (PDS Code: PDM)

Management of Defense Acquisition Contracts (basic) 8D-4320 (JT) - 4 (PDS Code: BDQ) weeks

Defense Contract Property Disposition ALMC-TY - 1 week (PDS Code: PDO)

d. Duties: Performs as either an industrial property management specialist or industrial property clearance specialist, assisting the property administrator by conducting system surveys and managing plant clearance cases, including inventory reviews of property for proper marking and utilization; reviews of scrap and salvage records to ensure compliance with approved procedures; and other assigned property system survey responsibilities, such as reviews of materials, special test equipment, and special tooling in accordance with established procedures.

2. Level II: GS-9/12, Officer 03/05, E 6/9

a. Experience: Minimum 1 year of experience at the GS-7 level or equivalent. Demonstrated knowledge of technical aspects of property administration is required.

b. Education: Associate's degree is desired, preferably with a major in a business-related field.

c. Training: Mandatory

Advanced Property Administration PPM 300 (JT) - 2 weeks (PDS Code: PDN)

d. Duties: Performs as a property administrator or plant clearance officer. Develops and applies a system-survey program to test contractor procedures; analyzes contracts and establishes management control necessary for ensuring compliance with contract terms; determines reasonableness of consumption and liability for lost, damaged, or destroyed Government property.

3. Level III: GS 13/15, Officer 03/06, E 8/9

a. Experience: Five years of current, complex, and progressively responsible experience with at least 1 year at the GS-12 level or equivalent.

b. Education: Baccalaureate degree, preferably with a major in a business-related field is desired.

c. Training: Mandatory

Defense Acquisition and Contracting Executive Seminar ER (JT)[1] - 1 week (PDS Code: BB3)

d. Duties: Formulates and implements policies and procedures pertaining to the management and control of Government property in the possession of contractors; provides guidance and direction to field activities having one or more property administrators or plant clearance officers; formulates and defines manpower requirements; and evaluates management and audit reports to determine need for corrective actions.

1. Should Be Attended Every 3-5 Years

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APPENDIX E

PURCHASING SERIES

A. General Description: Purchasing Series (GS-1105 and comparable military)

1. Level I: GS 4/6, E 1/7

a. Experience: Fulfilled by an associate's degree or 2 years of responsible office or technical experience.

b. Education: Associate's degree or 64 semester hours of undergraduate work desired.

c. Training: Mandatory

Defense Small Purchase (Basic) ALMC-B3 (JT) - 1 week (PDS Code: _____)

d. Duties: Purchases supplies, service, and equipment through informal open market methods and formal bid procedures for noncomplex requirements.

2. Level II: GS 7/8, E 5/9

a. Experience: Three years of current and progressively responsible experience with at least 1 year at the GS-6 level or equivalent.

b. Education: Associate's degree desired.

c. Training: Mandatory

Defense Small Purchase (Advanced) ALMC-B4 (JT) - 1 week (PDS Code: BCO)

d. Duties: Purchases supplies, services, and equipment through informal open market methods and sealed bid procedures for noncomplex requirements.

APPENDIX F

PROCUREMENT CLERK/ASSISTANT SERIES

A. General Description: Procurement Clerk/Assistant Series (GS-1106 and comparable military)

1. Level I: (Procurement Clerk), GS 3/5, E-1/7

a. Experience: One year of clerical or office experience demonstrating accuracy and attention to detail

b. Education: High School Diploma

c. Training: None

d. Duties: Prepares and processes a wide range of procurement documents and other clerical work supporting contracting functions.

2. Level II: (Procurement Assistant), GS 6/7, E-6/9

a. Experience: Four years of clerical or office experience in a contracting office.

b. Education: Associate's degree desired.

c. Training: Mandatory

If Job Primarily Post, Station, Installation (Base) Oriented

Defense Small Purchase (Basic) ALMC-B3 (T) - 1 week

d. Duties: Technical support work related to contract functions, such as assembling product and price data for negotiations or reporting contractor performance. Functions as an assistant to higher graded procurement personnel (i.e., contract specialist/negotiator and procurement analyst). Assists in fact-finding information needed to prepare replies to reports, correspondence, etc.

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Appendix G

MANUFACTURING/PRODUCTION SERIES

A. General Description: Manufacturing/Production Series (GS-8XX, GS-11XX & comparable military personnel). Includes industrial engineers, production specialists, general business and industry, and others performing manufacturing/production functions.

1. Level I: GS 5/7, Officer 01/04

a. Experience: Fulfilled by a baccalaureate degree or 4 years of responsible technical or industrial experience.

b. Education: Baccalaureate degree is desired, preferably with a major in production management, industrial engineering, manufacturing engineering, industrial technology, manufacturing engineering industrial technology, or related fields.

c. Training: Mandatory

Production Management I PPM 153 (JT) - 6 weeks (PDS Code: JQX)

Management of Defense Acquisition Contracts 8D-4320 (JT) - 4 weeks (PDS Code: BDQ)

d. Duties: Ensures government-furnished property (GFP) and equipment are properly identified and obtained, and oversees repairs and maintenance of GFP in contractor bands. Participates in source selection, manufacturing management and production capability reviews, production readiness review teams, industrial preparedness planning and preaward surveys. Conducts production progress-surveillance, including reviews of contractor schedules to determine contractor progress in meeting hardware delivery schedules. Proposal evaluation responsibilities include evaluating contractor cost proposals for reasonableness of manufacturing hours, tooling requirements, manufacturing approach, lot sizing, and other parameters. Facility management responsibilities include evaluating contractor management of Government industrial facilities and industrial plant equipment. Note: These duties may vary between DoD Component.

2. Level II: GS-9/12, Officer 03/05

a. Experience: For civilians, at least 1 year of experience at the GS-7 level or equivalent. Demonstrated knowledge of the nature and operations of an industry, including personnel, materials, facilities, and methods employed to produce products. This should include experience in determining needed materials personnel, facilities and to include the developing or evaluating of specifications and plans covering personnel requirement, plant layout, manufacturing and material planning.

b. Education: Baccalaureate degree is desired, preferably with a major in production management, industrial engineering, or related field. Graduate study with a major in industrial engineering or production management is preferred.

c. Training: Mandatory

Production Management 1I PPM 305 (JT) - 3 weeks (PDS CODE: EAJ) Management of Defense Acquisition Contracts (Advanced) 8D-F12 (JT)[1] - 2 weeks and 4 days (PDS CODE: BON); or Advanced Contract Administration PPM 304 (JT)[2] - 2 weeks (PDS CODE: BDO)

d. Duties: Typically revolve around planning for and leading efforts of the type of duties listed at Level I.

3. Level III: GS 13/15, Officer 03/06

a. Experience: At least 4 years of experience of increasing responsibility and complexity, with at least 1 year at the GS-12 level or equivalent. Demonstrated experience in the comprehensive survey and analysis of industrial operations, organization, capacity, and the like is desired.

b. Education: Master's degree, preferably with a major in production management, industrial engineering, or a related field, is highly desirable. Additional specialty courses and self-development training in the industrial and production management-related field are highly recommended. Attendance at an executive seminar center or professional military center is desired.

c. Training: Mandatory

Defense Acquisition and Contracting Executive Seminar ER (JT)[3] - 1 week (PDS Code: BB3)

d. Duties: Performs as a senior specialist for contract administration or system program office organization, or holds key staff position at headquarters level. Duties include management of the industrial preparedness program, supervision of policy formulation covering the Industrial Modernization Improvement Program, facilities management, manufacturing operations, and related industrial policy issues.

1. Mandatory course to be taken if job is primarily pre-award oriented.
2. Mandatory course to be taken if job is primarily post-award oriented.
3. Should be attended every 3-5 years.

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APPENDIX H

DOD-WIDE QUALITY ASSURANCE CAREER PROGRAM

A. General Information

1. Introduction: Quality Assurance within the Department of Defense is defined by DoD Directive 4155.1, Quality Policy, as a planned and systematic pattern of all actions necessary to provide confidence that adequate technical requirements are established; that products and services conform to established technical requirements; and that satisfactory performance is achieved. Quality Assurance (QA) personnel within the DoD are engaged in the development, implementation, and assessment of programs and systems to ensure that the quality and reliability of products acquired by or for the Department of Defense are maintained.

2. Purpose: This appendix establishes and implements the DoD-wide civilian career program for QA personnel, which shall be administered in accordance with the requirements and procedures contained herein.

3. Objectives: To provide and sustain QA expertise at the level needed by DoD and to ensure proper staffing and management of programs. To accomplish this objective, a career pattern has been developed to:

a. Promote comprehensive planning for the development of personnel within the QA career field.

b. Attract, select, and retain a highly qualified work force capable of performing current and future DoD QA functions.

c. Increase the technical and managerial proficiency of QA careerists.

d. Provide high-potential careerists developmental opportunities through rotation and exchange assignments to broaden experience and progression commensurate with their abilities.

e. Provide avenues for upward mobility for motivated and competent employees, in low-level or dead-end jobs, who demonstrate the capability and desire to enter the career field.

f. Provide a program with opportunity for all qualified careerists, regardless of race, color, religion, sex, national origin, age, marital status, physical handicap, political affiliation, or any other non-merit factors.

g. Provide an opportunity for each careerist to rise to as high a level of responsibility as his/her talent and diligence can take him/her, consistent with DoD component manpower requirements.

h. Direct management's attention to the managerial and technical training needs of the careerist in addition to other developmental needs.

i. Stimulate careerist's self-development and participation in the program.

4. Applicability:

a. The provisions contained herein apply to personnel assigned to general schedule (GS) and General Management (GM) positions in the Quality Assurance functions in the Office of the Secretary of Defense (OSD), the Military Departments, and the Defense Agencies (hereafter referred to as DoD Components).

b. Personnel who occupy wage grade positions and who have qualifying experience may be eligible to enter the program. This experience may have been acquired in such functions as quality control or inspection in the functional areas of acquisition, maintenance, supply, or other activities. The determination of eligibility of these individuals for entering into this program will be made by the civilian personnel office servicing these positions.

c. Entry into the program is encouraged for Federal employees working in other occupational fields. Qualified personnel from other fields, such as research, engineering, test and evaluation, chemistry, software development, mathematics, statistics, management and analysis, technical writing, and other series are encouraged to compete for positions (lateral or promotions) in the QA career field, or use a quality assurance position as a rotational assignment while pursuing a career in another professional field.

5. Responsibilities:

a. The Assistant Secretary of Defense (Production and Logistics (ASD(P&L)), or his designee, shall issue personnel policies and standards and provide overall guidance in program operation.

b. The Defense Quality Assurance Council shall:

1. Provide advice on Quality Assurance career management policy matters.

2. Assure implementation of the Quality Assurance career management program at operating levels.

3. Establish working groups and subcommittees, and provide support to such activities at the request of the chairperson.

4. Continually assess adequacy and effectiveness of the Quality Assurance Career Management Progam and make the proper recommendations to the ASD(P&L), as required.

c. The Quality Assurance functional chief (in coordination with the civilian personnel office) within each DoD component is responsible for implementing the program within that component. DoD Components are reminded that the obligations of any recognized labor unions must be fulfilled in the implementation of the career program.

6. Changes. Personnel at all levels are encouraged to submit suggestions, to improve the effectiveness of this program, to the Defense Quality Assurance Council through appropriate channels.

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B. Program Elements

1. Career:

a. The normal pathway for the progression within the QA career field is both vertical and lateral movement. Lateral movement within the career field is highly encouraged to broaden the experience base of the careerist. Multi-specialty experience for most upper level positions is desirable. To obtain this experience, the careerist should strive to attain work assignments and training in more than one of the functional areas of acquisition, contracting, logistics maintenance, supply, and other areas. In addition to multi-specialty experience, a mixture of operational and staff experience will help the careerinst in obtaining high-level position within the QA career field.

b. Management within each service is responsible to initiate action in the development of training plans for employees covered by the career program. Each employee is responsible to assist management in establishing his/her personal career plan and to prepare for the career opportunities which are part of the program.

2. Training and Development:

a. Training programs described in attachment 1 must meet the competency levels in attachment 2 and include the training requirements contained herein at Attachment 3 through the training sources listed in attachment 4.

b. A well designed training and development plan is flexible, responsive, and structured to maintain and improve the conceptual knowledge and technical skills of career employees. It provides the opportunity for the career employee to receive the type of diversified training and experience required to effectively perform position responsibilities.

c. The DoD-wide training agreement for rotational assignment to develop key personnel of the Department of Defense should be used by DoD Components to effectively develop QA managers.

d. Executive development provides a capstone program for individuals who have progressed through narrow professional career lines, and exposed them to the broad gauge skills and requirements of the top manager.

3. Career Counseling and Appraisal:

a. The counseling and appraisal of employees in the QA career field are important factors in management's efforts to retain and develop a highly motivated career staff that is continuously striving to improve its technical and managerial capability. Therefore, it is essential that each careerist in the QA field be counseled and appraised at least annually.

b. The purpose of the career counseling and appraisal sessions is to assess the career employee's performance and training needs and to provide a planned program for the development of career QA personnel. These sessions provide management with a periodic assessment of the employee's program, and potential for advancement, and the need for future training.

Attachment 1 to Appendix H

QUALITY ASSURANCE

General Description: Acquisition Quality Assurance Personnel (e.g., GS-1910, GS-801, 855, 896, other 800 series, other GS and GM series', and comparable military); including quality assurance specialists, engineers, and other series personnel performing quality assurance duties.

A. Quality Assurance Specialist

Description: Quality Assurance Specialist (e.g. GS/GM-1910, other technical series & comparable military)

Includes: In-plant Quality Assurance Representatives, quality specialists at organic facilities, and project support specialists.

1. Level I: GS 5/8, Officer 01/03

a. Experience: Fulfilled by a baccalaureate degree or 4 years of responsible technical or industrial experience.

b. Education: Baccalaureate degree is desired, with 24 semester hours, or academic equivalent, in physical science, mathematics, engineering, chemistry, industrial technology, industrial management, or related fields.

c. Training: Formal training in the areas listed below is mandatory within the first 12 months of assignment to quality assurance duties. The mandatory training for level I personnel responsible for assuring quality in contractor facilities shall be at least of four weeks duration, and shall be conducted during the first six months of assignment to such duties. These training requirements can be met using a combination of classroom and structured on the job training, except that not less than one week must be classroom training.

Training areas:

Quality principles; Defense quality policies; Government employee ethics; Contracting process; Technical data packages; Contractual quality requirements; Process analysis and controls; In-plant quality assurance programs; Contract review and planning; Procedures review and evaluation; Product verification and inspection techniques; product and process characteristics unique to the assigned areas.

NOTE: Prescribed course is Defense Acquisition Quality Assurance Fundamentals (AMEC) or Equivalent. Required competencies, alternate courses, and training sources are listed in attachments 2, 3, and 4.

d. Duties:

(1) In-Plant Quality Assurance Representative: Assists in the performance of quality assurance studies and audits of contractor quality programs to ensure contract compliance; assists in documenting nonconforming supplies and materials; performs inspection duties; and prepares technical reports.

(2) QAS-Organic Facilities: As applicable to organic facilities, performs duties similar in nature to those performed by the in-plant Quality Assurance Representative and Project Support Quality Assurance Specialist.

(3) QAS-Project Support: Assists in the development of and recommends quality and technical contractual requirements; reviews proposals and Quality Assurance Plans and Programs for adequacy; analyzes contractor and field quality data; assists in the performance of product oriented surveys and special quality reviews of contractor and Government facilities.

2. Level II: GS 9/12, Officer 03/04

a. Experience: One year of current quality assurance experience at the next lower grade or equivalent.

b. Education: Baccalaureate degree is desired, with 24 semester hours, or academic equivalent, in physical science, mathematics, engineering, chemistry, industrial technology, industrial management, or related fields,

c. Training: Formal training in the following areas is mandatory within the first 12 months of assignment to level II duties:

Materiel review and corrective action; Engineering Change Proposals evaluation; Technical data package review and evaluation; Test monitoring and analysis; Configuration management reviews; Pre-award surveys and post-award conferences; Quality system audits and product surveys.

NOTE: Course prescribed is DoD Acquisition Quality Assurance (ALMC) or equivalent. Sources for training are found in Attachment 4.

d. Duties:

(1) In-Plant Quality Assurance Representative: Develops procedures and techniques that encompass the full spectrum of the quality assurance function; Monitors contractor quality control, operating procedures, methods, and techniques to ensure that the contractor complies with quality assurance requirements; Witnesses tests and inspections and performs inspection functions; Issues documents, writes reports, and correlate data covering conformance of supplies and materials; Participates in pre-award and post-award surveys; Recommends changes to correct quality assurance program deficiencies; Has frequent personal contact with higher level Government and contractor personnel; and Issues reports identifying product or system deficiencies.

(2) QAS-Organic Facilities: As applicable to organic facilities, performs duties similar in nature to those performed by the in-plant Quality Assurance Representative and Project Support Quality Assurance Specialist.

(3) QAS-Project Support: Recommends quality and technical contractual requirements; Reviews proposals and quality Plans and Programs for adequacy; Analyzes contractor and field quality data; Performs product oriented surveys and special quality reviews of contractor and Government facilities; Participate in the development of specifications and standards related to quality; Assists in negotiation of contract requirements; participates in development and implementation of headquarters quality programs; and Participates in audits of field activities.

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3. Level III: GS/GM 13/15, Officer 04 or above

a. Experience: Five years of current, complex progressively responsible experience with at least 12 months at the next lower grade or equivalent.

b. Education: Baccalaureate degree is desired with 24 semester hours, or academic equivalent, in physical science, mathematics, engineering, chemistry, industrial technology, industrial management, or related fields.

c. Training: Formal training in the following areas is mandatory within the first 12 months of assignment to level III duties:

Current quality policies and philosophies; Current industry initiatives; Management principles and techniques.

NOTE: Course prescribed is DoD Acquisition Quality Assurance Management (ALMC) (ALMC) or equivalent. Sources for training are found in Attachment 4.

d. Duties:

(1) In-Plant Quality Assurance Representative: Typically is manager of a quality assurance organization. Has overall quality assurance responsibility to enforce contract provisions, terms and conditions, applicable regulations and directives; Has responsibility to ensure implementation of contractor quality assurance programs and manages resources. Exercises overall supervisory and managerial control to ensure successful operation of the quality assurance function throughout contractor facilities, and has approval and disapproval authority of contractor quality assurance system. Directs studies of contractor quality programs to ensure contract compliance; Supervises performance of technical reviews of Engineering Change Proposals, Value Engineering Change Proposals and the materiel review process.

(2) QAS-Organic Facilities: As applicable to organic facilities, performs duties similar in nature to those performed by the in-plant Quality Assurance Representative and Project Support Quality Assurance Specialist.

(3) QAS-Project Support: Exercises overall supervisory and managerial control to ensure successful execution of the project/program quality function, including the development of technical contractual requirements, quality plans and programs for contractor and field quality data, and performance of product oriented surveys and special quality reviews of contractor and Government facilities; Participates in the process to develop specifications and standards related to quality; assists in negotiation of contract requirements; Participate in development and implementation of headquarters quality programs; and Participates in audits of field activitits.

B. Quality Engineers and Scientists

Description: Engineering and Scientific Series Performing Quality Functions (e.g.: GS/GM-800, -1500, -1300, & comparable military) Includes: In-plant quality engineers and scientists, quality engineers and scientists at organic facilities and quality engineers and scientists engaged in project support and quality management.

1. Level I: GS 5/8, Officer 01/03

a. Experience: Fulfilled by a baccalaureate degree or 4 years of responsible technical or industrial experience.

b. Education: Baccalaureate degree in engineering science, physics, or equivalent four years of college level education, training, and/or technical experience is required. A minor in production management or quality assurance is desirable.

c. Training: Formal training in the following areas is mandatory within the first 12 months of assignment to quality assurance duties:

Quality principles; Defense quality policies; Government employee ethics; Contracting process; Technical data packages; Contractual quality requirements; Process analysis and controls; In-plant quality assurance programs; Contract reviews and planning; procedures review and evaluation; Configuration management Reliability and Maintainability; Computer aided design/computer aided manufacturing (CAD/CAM); and Statistical process control.

NOTE: Prescribed course is Defense Acquisition Quality Assurance Fundamentals (AMEC) or equivalent.

d. Duties:

(1) In-Plant Quality Assurance-Engineering Representative: Typically assists in performance of studies and audits of contractor programs to ensure contract compliance. Monitors Reliability and Maintainability testing; Assists the development of, and implements parts of the in-house quality program; Assists in documenting nonconforming supplies and materials, and evaluates corrective actions; Performs technical reviews of engineering change proposals and forwards recommendations to the approving activities; Assists in evaluation of Value Engineering Change Proposals; Reviews requests for waivers and deviations and participates in the materiel review process; Participates in special quality assessments of programs, processes, products, or facilities.

(2) QA Engineer - Organic Facilities: As applicable to organic facilities, performs duties similar in nature to those performed by the in-plant Quality Assurance Engineering Representative and Quality Engineer, Project Support.

(3) QA Engineer - Project Support: Assists in the performance of studies of contractor quality programs and analyzes quality data to ensure contract compliance; Monitors Reliability and Maintainability testing; Participates in the development of contract requirements and military specifications and standards. Participates in special quality assessments of programs, processes, products or facilities. Assists in the development of quality programs, assists in analysis of nonconforming supplies and materials, performs technical reviews of Engineering Change Proposals and forwards recommendations to the approving activities, assists in evaluation of Value Engineering Change Proposals, and participates in the review of requests for waivers and deviations to contract specifications.

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2. Level II: GS 9/12, Officer 03/04

a. Experience: One year of current quality assurance experience at the next lower grade or equivalent.

b. Education: Baccalaureate degree in engineering science, physics, or equivalent four years of college level education, training, and/or technical experience is required. A minor in production management or quality assurance is desirable.

c. Training: Formal training in the following areas is mandatory within the first 12 months of assignment to level II duties:

Material review and corrective action; Engineering change proposals evaluation; Technical data package review and evaluation; Test monitoring and analysis Configuration management reviews; Pre-award surveys and post-award conferences; Quality system reviews; Product surveys; Reliability/Maintainability audits; and Process capability surveys.

NOTE: Course prescribed is DoD Acquisition Quality Assurance (ALMC) or equivalent. Sources for training are found in Attachment 4.

d. Duties:

(1) In-Plant Quality Assurance-Engineering-Representative: Performs or leads studies and audits of contractor quality programs to ensure contract compliance; Evaluates the causes and remedies for nonconforming supplies and materials; Performs technical reviews of Engineering Change proposals and forwards recommendations to the approving activities; Assists in evaluation of Value Engineering Change Proposals; and Performs technical reviews of products submitted for material review. Evaluates contractor corrective actions for adequacy. Reviews contracts and technical data packages after award and recommends changes in technical requirements. Monitors Reliability and Maintainability programs as well as test evaluation during product development activities.

(2) QA Engineer - Organic Facilities: As applicable to organic facilities, performs duties similar in nature to those performed by the in-plant Quality Assurance Engineering Representative and Quality Engineer, Project Support.

(3) QA Engineer - Project Support: Performs or leads studies of contractor quality programs and analyzes quality data to ensure contract compliance; Participates in special quality assessments of programs, processes, products or facilities. Monitors R&M programs as well as test and evaluation efforts during system development phase; Participates in configuration control reviews; Develops contract quality requirements and instructions for contract administration personnel; Performs technical reviews of Engineering Change Proposals and participates in the approval process; Evaluates requests for waivers and deviations, as well as Value Engineering Change Proposals, quality assurance program plans etc. Prepares or evaluates technical data packages, contracts, specifications, and standards to ensure compliance with higher level requirements and to ensure that quality characteristics, acceptance criteria,

and quality assurance provisions are adequate and fully defined. Acts for the program manager or in support of the program manager as part of the program staff.

3. Level III: GS/GM 13/15, Officer 04 or above

a. Experience Five years of current, complex, progressively responsible experience with at least 12 months at the next lower grade.

b. Education: Baccalaureate degree in engineering science, physics, or equivalent four years of college level education, training, and/or technical experience is required. A minor in production management or quality assurance is desirable.

c. Training: Formal training in the following areas is mandatory within the first 12 months of assignment to level III duties:

Current Quality policies and philosophies; Current Industry initiatives; Management principles and techniques.

NOTE: Course prescribed is DoD Acquistion Management (ALMC) or equivalent. Sources for training are found in Attachment 4.

d. Duties:

(1) In-Plant Quality Assurance (Engineering) Representative: Typically is a manager or supervisor at contract administration activity or engineering facility. Has overall quality assurance responsibility to enforce contract provisions, terms and conditions, applicable regulations and directives; has responsibility to ensure implementation of contractor quality assurance programs; and Manages resources. Exercises overall supervisory and managerial control to ensure successful operation of the quality assurance function throughout contractor facilities, and has approval and disappoval authority of quality assurance system. Directs studies of quality programs, processes, products or facilities to ensure contract compliance; Supervises performance of technical reviews of Engineering Change Proposals, Value Engineering Change Proposals, and the material review process.

(2) QA Engineer - Organic Facilities: As applicable to organic facilities, performs duties similar in nature to those performed by the in-plant Quality Assurance Engineering Representative and Quality Engineer, Project Support.

(3) QA Engineer - Project Support: Typically is a supervisor of an engineering facility. Leads studies of contractor quality programs to ensure contract compliance; Participates in special quality assessments of programs, processes, products or facilities; Supervises development of contract quality requirements and instructions for contract administration personnel; Supervises technical reviews of Engineering Change Proposals and participates in the approval process, evaluates the process to review waivers, deviations, Value engineering Change Proposals, quality assurance program plans etc. Supervises preparation and evaluation of technical data packages, contracts, specifications, and standards. Acts for the program manager or in support of the program manager as part of the program staff. Participates in the development of policies and regulations in the area of quality assurance.

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Attachment 2 to Appendix H

Competency Levels/Learning Objectives

Public Law 99-145 requires that quality assurance personnel receive a minimum of four weeks training within the first six months of assignment to in-plant Quality Assurance functions. Accordingly, training in the following areas is required: Quality principles; Defense quality policies; Government employee ethics; Contracting process; Technical data packages; Contractual quality requirements; Process analysis and controls; In-plant quality assurance programs; Contract review and planning; Procedures review and evaluation; Product verification and inspection techniques; Product and process characteristics unique to the assigned areas.

The learning objectives to be achieved by quality assurance personnel assigned to in-plant duties, within the first six months of assignment to such duties, are as follows:

A. Quality Assurance Orientation

1. Define and explain terms like quality, inspection, quality control, quality assurance, etc.
2. Identify major DoD and applicable components quality policy documents (i.e. Directives, instruction and regulations.
3. Describe how the standards of conduct apply to Government quality assurance personnel in their relationship with contractors.
4. Describe the responsibility of government quality assurance personnel to be alert to, and report instances of fraud, waste and abuse (i.e. product substitution) by contractors.
5. Describe the traditional quality philosophy and contrast it with current philosophies of Deming, Juran, Crosby, and Feiguenbaum.

B. Procurement Quality Assurance

1. Describe the major steps in the contracting process.
2. Identify and describe the typical Components of a technical data package and how each is used.
3. Identify and describe the various levels of contract quality system requirements used within DoD.

C. Process Controls

Identify and describe the major means of process control, e. g., automated manufacturing systems, automated inspection and test, material control, statistical process control, etc.

D. In-Plant Quality Assurance

1. Describe the purpose , process, and elements of the Government contract quality assurance plan.
2. Determine the need for procedures review/evaluation, describe the process, and identify the characteristics that procedures should possess.
3. Describe the purpose, scope an application of product verification.
4. Define the meaning of acceptance, its significance, and methods of accomplishment.
5. Describe the objectives and methods of corrective action.

E. Basic Inspection Techniques

1. Differentiate among the various levels of specifications and engineering drawings and identify the technical requirements therein.
2. Describe the basic inspection techniques and equipment used to assure that technical requirements are met.

F. Commodity Orientation

1. Describe key product characteristics, product and use, and their interrelationship.
2. Describe key process characteristics an identify how they are controlled by the contractor.
3. Identify and describe the unique inspection methods applicable to the commodity to which the employee is assigned.

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Attachment 3 to Appendix H

CROSS REFERENCE CHART FOR MANDATORY TRAINING

LEARNING OBJECTIVES (LISTED IN ATCH 2, PAGES B-1 - B-3)	ARMY	NAVY	A.F.	DLA
			AFR40-110 Vol 10 AFSC 13	DLAM 8220.4 DLAM 1445.20
A.1	8D-F34	FLTTAC XXQ002	AFSC 1	S01
A.2	8D-F34	XXQ002 (2402)	AFSC 1	S01
A.3	8D-F34	XXQ002 (2402)	AFSC 1	S01
A.4	8D-F34	XXQ002 (2402)	AFSC 35	S80
A.5	8D-F34	XXG002 (2402)	AFSC 1	S01
B.1	8D-F34	XXQ024 Q014 Q024	AFSC 1 & 32	S01
B.2	8D-F34	XXQ024 Q014 Q029	AFSC 1 & 32	S01 & Q40
B.3	8D-F34	XXQ024 Q014 Q029	AFSC 1 $ 32	S01
C	8D-F34	XXQ03 Q034 Q035 Q015 Q022	AFIT,QMT 090	S81,S07 & S32
D.1	8D-F34	XXQ002 Q004 Q0017	AFSC 1	S01
D.2	8D-F34	XXQ031 Q004 Q009/13	AFSC 1	S01
D.3	8D-F34	XXQ004	AFSC 1 & 36	S01
D.4	8D-F34	XXQ004 Q009/13 Q024 Q026	AFSC 36	S01
D.5	8D-F34	XXQ001 Q009/13 Q024 Q028	AFSC 1	S01

E.1	CECOM.061	XXQ002 Q005 Q014 Q017	AFSC 36	S44 & S60
E.2	CECOM.050	XXQ004 Q022 Q025 Q026	AFSC 1 & 36	S06,OJT,(*)
F.1	OJT	XXQ017 Q023 Q026 OJT	OJT,(*)	OJT,(*)
F.2	OJT	XXQ001 Q006 Q014 Q029 OJT,(*)	OJT,(*)	S01 & OJT
F.3	OJT	XXQ004 Q005 Q022/24/25 OJT,(*)	OJT,(*)	S06,OJT,(*)

(*) Commodity/process c applicable to individual specialty.
(**) Courses require rev development.

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Attachment 4

ESTABLISHED TRAINING SOURCE LIST

1.	AFCMD	AFSC Air Force Systems Command; Air Force Contract Management Division (AFCMD), Kirkland AFB NM 87117
2.	AFIT/LS	Air Force Institute of Technology, School of Systems and Logistics, Wright--Patterson AFB, OH 45433
3.	AMEC	Army Management Engineering College, Rock Island, ILL 61201
4.	ALMC	Army Logistics Management College, Ft. Lee, VA 23801
5.	CECOM	U.S. Army Communication and Electronics Command, Ft. Monmouth, N.J. 07703
6.	DISI	Defense Industrial Security Institute, Richmond, VA 23219
7.	DLA	Defense Logistics Agency; Contract Administration Regional Offices (various locations)
8.	DODCI	Department of Defense Computer Institute, Bldg 175, Washington Navy Yard, Washington, D.C. 20374
9.	DSMC	Defense Systems Management College, Ft. Belvoir, VA 22060
10.	MTL	Materials Technical Laboratory, Watertown, MA 02174
11.	OPM	Office of Personnel Management, Management Training Institutes (various locations)
12.	SMPTC	School of Military Packaging Technology Center, Aberdeen Proving Ground, MD 21005
13.	FLTAC	Fleet Analysis Center Naval Sea Systems Command Product Assurance Training Center Corona, CA 91720
14.	3400 TCHTW	3400 TCHTW/TTGXG Lowry Technical Training Center Lowry AFB, CO 80230

NOTE: These and other sources shall be used to develop individual employees' training plans.

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Appendix I

BUSINESS AND FINANCIAL MANAGER SERIES

A. General Description: Business and Financial Manager (Multiple GS series & comparable military. This job title is not used by all Services).

1. Level I: GS 5/7, Officer 01/03

a. Experience: Fulfilled by a baccalaureate degree or 4 years of progressively responsible employment in the area of finance, accounting, cost analysis, or budgeting.

b. Education: Baccalaureate degree is desired.

c. Training: Mandatory

A Business Management Course or comparable course determined by the Components

d. Duties: Assists the Program Manager by performing various managerial tasks associated with such functions as budgeting, acquisition strategy development, business management, and cost analysis, financial resource control. Performs other business managerial efforts needed throughout the production and deployment phases of the acquisition life cycle. Encompasses staff and management functions peculiar to the acquisition of subsystems, systems and support equipment related to acquisition programs.

2. Level II: Staff positions in Business and Financial Management, and position of Business and Financial Manager of a non-major program, (GS 9/12, Officer 03/05).

a. Experience: A minimum 1 year of experience; 2 years are required for individuals holding the position of Business and Financial Manager (or equivalent) or supervisory positions in this functional area. Experience should be in program control, procurement, technical, budget or cost analysis, including assignments in government administration and plant representative offices, laboratories, logistics support offices, program offices, or functional staff budget or cost analysis offices.

b. Education: Baccalaureate degree with 24 semester hours in accounting, economics, business law, procurement or management related studies (or at least 12 hours of graduate studies in these fields) is highly desirable.

c. Training: Mandatory

A Contractor Performance Measurement Course or equivalent course/workshop to be determined by the Components.

d. Duties: Performs as the Program Manager's focal point for matters relating to overall business strategy or the program office, including direction and participation in efforts to establish the technical, military, an economic basis for a program in the conceptual phase. Includes various managerial and supervisory tasks associated with such functions as budgeting,

acquisition strategy development, business management, cost analysis, and financial resource control. Performs all other business managerial efforts needed throughout the validation, full-scale development, and production and development phases of the acquisition life cycle of the system, including subsystems and system support equipment related to acquisition programs. Interfaces with contractors.

3. Level III: Business and Financial Managers of major programs (GS 13/15, Officer 04 and above).

a. Experience: A minimum of 4 years experience of increasing complexity and responsibility including at least 1 year at the GS12 level or equivalent is required. Experience must be in program control, procurement, technical, budget, or cost analysis, and shall be gained through assignments in goverment administration and plant representative offices, laboratories, logistics support offices, program offices, or functional staff budget, or cost analysis offices.

b. Education: Master's degree is highly desirable in business administration, management, procurement, or related fields.

c. Training: Mandatory

Contractor Performance Measurement Course or equivalent course/ workshop to be determined by the Components.

d. Duties: Performs as the Program Manager's focal point for matters relating to overall business strategy or the program office, including direction and participation in efforts to establish the technical, military, and economic basis for a program in the conceptual phase. Includes various managerial and supervisory tasks associated with such functions as budgeting, acquisition strategy development, business management, cost analysis, and financial resource control. Performs all other business managerial efforts needed throughout the validation, full-scale development, and production and deployment phases of the acquisition life cycle. Interfaces with contractors. Encompasses staff and management functions peculiar to the acquisition of subsystems, systems, and support equipment related to acquisition programs.

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APPENDIX J

Acquisition Logistics

A. Deputy Program Manager for Logistics, Major or Non-major Programs

For individuals designated Deputy Program Manager for Logistics of major or non-major programs, the following standards shall apply. The mandatory standards may be waived only at the General/Flag officer or SES level.

1. Education:

a. A baccalaureate or advanced degree in a technical, scientific, or managerial field is mandatory. Advanced technical education of a long-term nature in a service school may be used to satisfy the requirement.

b. A master's degree in a technical, scientific, or managerial field is desired.

2. Training:

a. Successful completion of the DSMC Program Management and Management of Acquisition Logistics Courses, or comparable courses at another institution approved by USD(A), is mandatory.

b. Successful completion of the prescribed curriculum of an Intermediate Service School is desired.

3. Experience:

a. Deputy Program Manager for Logistics, Major System. At least 4 years of experience in the support or maintenance of weapon systems or in acquisition -- at least 2 years acquired while assigned to a procurement command--is mandatory.

b. Deputy Program Manager for Logistics, Non-Major System. At least 2 years of experience in the support or maintenance of weapons systems performed while assigned to a procurement command is mandatory.

4. Career Consideration

a. DoD Components are responsible for the actions required to achieve the following:

(1) To achieve and retain well-trained and talented junior-level individuals ready to move into the senior-level positions, appropriate career fields must be developed and maintained.

These fields must provide line and staff careers within the military and civilian professional series that support Acquisition Logistics Management.

(2) Career opportunities shall be established to attract, develop, retain, and reward outstanding military officers and civilian employees for demonstrated performance in assignments designed to prepare managers for the positions of Program Manager or principal deputies and assistants. Civilian career programs shall be developed under the guidelines contained in DoD Instructions 1-30.12 (reference (o)).

b. In establishing these civilian and military career fields, the DoD Components must, as a minimum perform the following tasks:

(1) Determine the qualifications for entry to and advancement in the individual fields, including the performance standards, experience, level of training, and formal education appropriate for each rank/grade. Conditional entry and upward mobility paths should be provided for individuals not fully qualified for entry, with high standards for unconditional entry and guaranteed return to previous employment for those not achieving entry qualification.

(2) Determine the approximate number of personnel at each rank or grade and specialty required to fill each career field for the foreseeable future. Ensure that grade levels are commensurate with responsibility, authority, program accountability. The grade structure of program officers should recognize the great importance and responsibility associated with the acquisition of weapon systems.

(3) Develop military and civilian career plans that lead to the satisfaction of the requirements to include training and professional education requirements, identification of the mandatory and desired types and amount of experience needed to assume upper level program management positions, administrative controls for these plans and the populations enrolled in these plans, and provisions for advancement based on demonstrated performance.

(4) Maintain current rosters of the civilian and military personnel who have formally indicated a desire to become professionals in a recognized acquisition logistics job series, specialty, or subspecialty, and the current qualifications of each individual on the roster.

(5) Institute methods that centralize acquisition logistics management employment opportunity information so it is readily accessible to interested individuals.

(6) Create maximum assignment flexibility for civilian employees within existing OPM regulations, including mobility agreements. Inter-Component rotational assignments should be considered for developmental training as outlined in DoD CPM Chapter 950 (Reference (l)).

5. Training

a. Each DoD Component is responsible for identifying and training individuals to establish a cadre of military and civilian personnel adequate to meet its future needs for leadership in acquisition logistics management.

b. Professional education and training programs should provide for progressive growth at the entry, intermediate, and senior levels to meet the

standards and requirements set forth above, and those standards determined and set individually by each Component. Civilian employees shall be trained in accordance with DoD CPM Chapters 410 and 412 (references (m) and (n)).

6. Personnel Management

a. Performance measurements shall be developed and applied to ensure that only the most competent individuals are retained and advanced to the position of Deputy Program Manager for Logistics.

b. The Deputy Program Manager for Logistics shall be held accountable for performance within his/her assigned responsibility. Performance evaluations shall take into account program-peculiar conditions.

c. Tenure of assignment must be sufficient to ensure not only effective management and evaluation, but also continuity of management. The Deputy Program Manager for Logistics should be targeted to be in place for at least 4 years or until completion of the next major milestone (as defined in DoDD 5000.1). Similarly, the rotation or assignment of key acquisition logistic assistants should be controlled by the needs of the Program Manager shall be interpreted to mean that an individual whose professional performance of duty is not satisfactory will not be retained in his or her position.

d. Opportunities for advancement in the acquisition logistics career field shall be equivalent to those of contemporaries in operational, line, and command positions. Where boards are established for the purpose of selecting individuals for advancement, they shall include experienced system acquisition managers to ensure that only the best qualified individuals, based on demonstrated performance, are selected for promotion.

e. As indicated in the earlier subsections, a performance monitoring system for all personnel who are involved in or aspire to be in the recognized career fields of acquisition management shall be maintained by each DoD Component. Selection for key positions in management of major defense systems normally shall be from among those so tracked, and heavy reliance shall be placed on performance records, particularly in acquisition logistics-related assignments, for determination of those best qualified.

f. Personnel should be selected on the basis of skills, experience, and the demonstrated performance needed to perform successfully the contemplated assignment within a program, regardless of military of civilian status.

B. Acquisition Logistics Management Personnel

For Acquisition Logistics Management Personnel of major or non-major programs, the following standards shall apply. The mandatory standards may be waived only at the General/Flag officer or SES level.

1. Education:

a. A baccalaureate or advanced degree in a technical, scientific, or managerial field is preferred. Technical education of a long-term nature in service school may be used to satisfy the requirement.

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b. A master's degree in an appropriate field is desired.

2. Training

a. Successful completion of the Management of Acquisition Logistics Course, or comparable course at another institution approved by USD(A), is mandatory.

b. Successful completion of the prescribed curriculum of an Intermediate Service School is desired.

3. Experience.

At least 2 years of experience in the support or maintenance of weapons systems performed while assigned to a procurement command is mandatory.

4. Career Consideration

a. DoD Components are responsible for the actions required to achieve the following:

(1) To achieve and retain well-trained and talented junior-level individuals ready to move into the senior-level positions, appropriate career fields must be developed and maintained. These fields must provide line and staff careers within the military and civilian professional series that support Acquisition Logistics Management.

(2) Career opportunities shall be established to attract, develop, retain, and reward outstanding military officers and civilian employees for demonstrated performance in assignments designed to prepare managers for the positions of Program Manager or principal deputy and assistant. Civilian career programs shall be developed under the guidelines contained in DoD Instruction 1430.12 (Reference (o)).

b. In establishing these civilian and military career fields, the DoD Components must, as a minimum, perform the following tasks:

(1) Determine the qualifications for entry to and advancement in the individual fields, including the performance standards, experience, level of training, and formal education appropriate for each rank or grade. Conditional entry and upward mobility paths standards for unconditional entry and guaranteed return to previous employment for those not achieving entry qualification.

(2) Determine the approximate number of personnel at each rank or grade and specialty required to fill each career field for the foreseeable future. Ensure that grade levels are commensurate with responsibility, authority and program accountability.

(3) Develop military and civilian career plans that lead to the satisfaction of the requirements to include training and professional education requirements, identification of the mandatory and desired types and amounts of experience needed to assume upper level program management positions, administrative controls for these plans and the populations enrolled in these plans, and provisions for advancement based on demonstrated performance.

(4) Maintain current rosters of the civilian and military personnel who have formally indicated a desire to become professionals in a recognized acquisition logistics job series, specialty, or subspecialty, and the current qualifications of each individual on the roster.

(5) Institute methods that centralize acquisition management employment opportunity information so it is readily accessible to interested individuals.

(6) Create maximum assignment flexibility for civilian employees within existing OPM regulations, including mobility agreements. Inter-Component rotational assignments should be considered for developmental training as outlined in DoD CPM Chapter 950 (Reference (l)).

5. Training

a. Each DoD Component is responsible for identifying and training individuals to establish a cadre of military and civilian personnel adequate to meet its future needs for leadership in acquisition logistics management.

b. Professional education and training programs should provide for progressive growth at the entry, intermediate, and senior levels to meet the standards and requirements set forth above, and those standards determined and set individually by each Component. Civilian employees shall be trained in accordance with DoD CPM Chapters 410 and 412 (references (m) and (n)).

6. Personnel Management

a. Performance measurements shall be developed and applied to ensure that only the most competent individuals are retained and advanced.

b. Acquisition logistics management personnel shall be accountable for performance within his/her assigned responsibility. Performance evaluations shall take into account program-peculiar conditions.

c. Tenure of assignment must be sufficient to ensure effective management and evaluation. The rotation or assignment of key acquisition logistics assistants should be controlled by the needs of the Program Manager to ensure a proper balance between effectiveness and continuity of management. No tenure policy stated above shall be interpreted to require that an individual whose professional performance of duty is not satisfactory to the reporting senior be retained in his or her position.

d. Opportunities for advancement in acquisition logistics career fields shall be equivalent to those of contemporaries in operational, line, and command positions. Where boards are established for the purpose of selecting individuals for advancement, they shall include experienced acquisition logistics managers to ensure that only the best qualified individuals, based on demonstrated performance and experience, are selected for promotion.

e. A performance monitoring system for all personnel who are involved in or aspire to be in the recognized career fields of acquisition logistics

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management shall be maintained by each DoD Component. Selection for key positions shall be from among those so tracked, and heavy reliance shall be placed on performance records, particularly in acquisition logistics-related assignments, for determination of those best qualified.

f. Personnel should be selected on the basis of skill, experience, and the demonstrated performance needed to successfully perform the contemplated assignment within a program, regardless of military or civilian status.

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Acquisition Logistics

I. Deputy Program Manager for Logistics, Major or Non-major Programs

For individuals designated Deputy Program Manager for Logistics of major or non-major programs, the following standards shall apply. The mandatory standards may be waived only at the General/Flag officer or SES level.

A. Education:

1. A baccalaureate or advanced degree in a technical, scientific, or managerial field is mandatory. Advanced technical education of a long-term nature in a service school may be used to satisfy the requirement.

2. A master's degree in an appropriate field is desired.

B. Training:

1. Successful completion of the DSMC Program Management and Management of Acquisition Logistics Courses, or comparable courses at another institution approved by USD(A), is mandatory.

2. Successful completion of the prescribed curriculum of an Intermediate Service School is desired.

C. Experience:

1. Deputy Program Manager for Logistics, Major System. At least 4 years of experience in the support or maintenance of weapon systems or in acquisition -- at least 2 years acquired while assigned to a procurement command -- is mandatory.

2. Deputy Program Manager for Logistics, Non-Major System. At least 2 years of experience in the support or maintenance of weapons systems performed while assigned to a procurement command is mandatory.

Career Consideration

1. DoD Components are responsible for the actions required to achieve the following:

a. To achieve and retain well-trained and talented junior-level individuals ready to move into the senior-level positions, appropriate career fields must be developed and maintained. These fields must provide line and staff careers within the military and civilian professional series that support Acquisition Logistics Management.

b. Career opportunities shall be established to attract, develop, retain, and reward outstanding military officers and civilian employees for demonstrated performance in assignments designed to prepare managers for the positions of Program Manager or principal deputies and assistants. Civilian career programs shall be developed under the guidelines contained in DoD Instruction 1430.12 (Reference (o)).

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2. In establishing these civilian and military career fields, the DoD Components must, as a minimum, perform the following tasks:

a. Determine the qualifications for entry to and advancement in the individual fields, including the performance standards, experience, level of training, and formal education appropriate for each rank or grade. Conditional entry and upward mobility paths should be provided for individuals not qualified fully for entry, with high standards for unconditional entry and guaranteed return to previous employment for those not achieving entry qualification.

b. Determine the approximate number of personnel at each rank or grade and specialty required to fill each career field for the foreseeable future. Ensure that grade levels are commensurate with responsibility, authority, program accountability, broad supervision exercised over functional and contractor activity. The grade structure of program officers should recognize the great importance and responsibility associated with the acquisition of weapon systems.

c. Develop military and civilian career plans that lead to the satisfaction of the requirements to include training and professional education requirements, identification of the mandatory and desired types and amounts of experience needed to assume upper level program management positions, administrative controls for these plans and the populations enrolled in these plans, and provisions for advancement based on demonstrated performance.

d. Maintain current rosters of the civilian personnel who have formally indicated a desire to become professionals in a recognized acquisition logistics job series, specialty, or subspecialty, and the current qualifications of each individual on the roster.

e. Institute methods that centralize acquisition logistics management employment opportunity information so it is readily accessible to interested individuals.

f. Create maximum assignment flexibility for civilian employees within existing CPM regulations, including mobility agreements. Inter-Component rotational assignments should be considered for developmental training as outlined in DoD CPM Chapter 950 (Reference (l)).

Training

a. Each DoD Component is responsible for identifying and training individuals to establish a cadre of military and civilian personnel adequate to meet its future needs for leadership in acquisition logistics management.

b. Professional education and training programs should provide for progressive growth at the entry, intermediate, and senior levels to meet the standards and requirements set forth above, and those standards determined and set individually by each Component. Civilian employees shall be trained in accordance with DoD CPM Chapters 410 and 412 (references (m) and (n)).

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Personnel Management

a. Performance measurements shall be developed and applied to ensure that only the most competent individuals are retained and advanced to the position of Deputy Program Manager for Logistics.

b. The Deputy Program Manager for Logistics shall be held accountable for performance within his/her assigned responsibility. Performance evaluations shall take into account program-peculiar conditions.

c. Tenure of assignment must be sufficient to ensure not only effective management and evaluation, but also continuity of management. The Deputy Program Manager for Logistics should be targeted to be in place for at least 4 years or until completion of the next major milestone (as defined in DoD 5000.1). Similarly, the rotation or assignment of key acquisition logistic assistants should be controlled by the needs of the Program Manager to ensure a proper balance between effectiveness and continuity of management. No tenure policy stated above shall be interpreted to require that an individual whose professional performance of duty is to satisfactory to the reporting senior be retained in his or her position.

d. Opportunities for advancement in the acquisition logistics career fields shall be equivalent to those of contemporaries in operational, line, and command positions. Where boards are established for the purpose of selecting individuals for advancement, they shall include experienced system acquisition managers to ensure that only the best qualified individuals, based on demonstrated performance, are selected for promotion.

e. As indicated in the earlier subsections, a performance monitoring system for all personnel who are involved in or aspire to be in the recognized career fields of defense system acquisition management shall be maintained by each DoD Component. Selection for key positions in management of major defense systems normally shall be from among those so tracked, and heavy reliance shall be placed on performance records, particularly in acquisition logistics - related assignments, for determination of those best qualified.

f. Personnel should be selected on the basis of skills, experience, and the demonstrated performance needed to perform successfully the contemplated assignment within a program, regardless of military or civilian status.

II. Acquisition Logistics Management Personnel

For Acquisition Logistics Management Personnel of major or non-major programs, the following standards shall apply. The mandatory standards may be waived only at the General/Flag officer or SES level.

A. Education:

1. A baccalaureate or advanced degree in a technical, scientific, or managerial field is preferred. Technical education of a long-term nature in service school may be used to satisfy the requirement.

2. A master's degree in an appropriate field is desired.

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B. Training

1. Successful completion of the Management of Acquisition Logistics Course, or comparable course at another institution approved by USD(A), is mandatory.

2. Successful completion of the prescribed curriculum of an Intermediate Service School is desired.

C. Experience:

At least 2 years of experience in the support or maintenance of weapons systems performed while assigned to a procurement command is mandatory.

Career Consideration

1. DoD Components are responsible for the actions required to achieve the following:

a. To achieve and retain well-trained and talented junior-level individuals ready to move into the senior-level positions, appropriate career fields must be developed and maintained. These fields must provide line and staff careers within the military and civilian professional series that support Acquisition Logistics Management.

b. Career opportunities shall be established to attract, develop, retain, and reward outstanding military officers and civilian employees for demonstrated performance in assignments designed to prepare managers for the positions of Program Manager or principal deputy and assistant. Civilian career programs shall be developed under the guidelines contained in DoD Instruction 1430.12 (Reference (o)).

2. In establishing these civilian and military career fields, the DoD Components must, as a minimum, perform the following tasks:

a. Determine the qualifications for entry to and advancement in the individual fields, including the performance standards, experience, level of training, and formal education appropriate for each rank or grade. Conditional entry and upward mobility paths should be provided for individuals not qualified fully for entry, with high standards for unconditional entry and guaranteed return to previous employment for those not achieving entry qualification.

b. Determine the approximate number of personnel at each rank or grade and specialty required to fill each career field for the foreseeable future. Ensure that grade levels are commensurate with responsibility, authority, program accountability and broad supervision exercise over functional and contractor activity.

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c. Develop military and civilian career plans that lead to the satisfaction of the requirements to include training and professional education requirement, identification of the mandatory and desired types and amounts of experience needed to assume upper level program management positions, administrative controls for these plans and the populations enrolled in these plans, and provisions for advancement are based on demonstrated performance.

d. Maintain current rosters of the civilian and military personnel who have formally indicated a desire to become professionals in a recognized acquisition logistics job series, specialty, or subspecialty, and the current qualifications of each individual on the roster.

e. Institute methods that centralize acquisition logistics management employment opportunity information so it is readily accessible to interested individuals.

f. Create maximum assignment flexibility for civilian employees within existing OPM regulations, including mobility agreements. Inter-Component rotational assignments should be considered for developmental training as outlined in DoD CPM Chapter 950 (Reference (l)).

Training

a. Each DoD Component is responsible for identifying and training individuals to establish a cadre of military and civilian personnel adequate to meet its future needs for leadership in acquisition logistics management.

b. Professional education and training programs should provide for progressive growth at the entry, intermediate, and senior levels to meet the standards and requirements set forth above, and those standards determined and set individually by each Component. Civilian employees shall be trained in accordance with DoD CPM Chapters 410 and 412 (references (m) and (n)).

Personnel Management

a. Performance measurements shall be developed and applied to ensure that only the most competent individuals are retained and advanced.

b. Acquisition logistics management personnel shall be held accountable for performance within his/her assigned responsibility. Performance evaluations shall take into account program-peculiar conditions.

c. Tenure of assignment must be sufficient to ensure effective management and evaluation. The rotation or assignment of key acquisition logistics assistants should be controlled by the needs of the Program Manager to ensure a proper balance between effectiveness and continuity of management. No tenure policy stated above shall be interpreted to require that an individual whose professional performance of duty is not satisfactory to the reporting senior be retained in his or her position.

d. Opportunities for advancement in acquisition logistics career fields shall be equivalent to those of contemporaries in operational, and command

positions. Where boards are established for the purpose of selecting individuals for advancement, they shall include experienced acquisition logistics managers to ensure that only the best qualified individuals, based on demonstrated performance and experience, are selected for promotion.

e. A performance monitoring system for all personnel who are involved in or aspire to be in the recognized career fields of acquisition logistics management shall be maintained by each DoD Component. Selection for key positions shall be from among those so tracked, and heavy reliance shall be placed on performance records, particularly in acquisition logistics-related assignments for determination of those best qualified.

f. Personnel should be selected on the basis of skill, experience, and the demonstrated performance needed to successfully perform the contemplated assignment within a program, regardless of military or civilian status.

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ARMY CIVILIAN TRAINING, EDUCATION AND DEVELOPMENT SYSTEM (ACTEDS) PLAN FOR ARMY CONTRACTING & ACQUISITION (C&A)

PREPARED BY: **U.S. ARMY CONTRACTING SUPPORT AGENCY**
FALLS CHURCH, VA 22041-3201

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ARMY CONTRACTING AND ACQUISITION CIVILIAN
TRAINING, EDUCATION AND DEVELOPMENT SYSTEM (ACTEDS) PLAN

1. INTRODUCTION. The plan outlined herein provides the framework for implementing the Army Civilian Training, Education and Development System (ACTEDS) in the Contracting and Acquisition Career Program. This plan, in coordination with AR 690-950, "Career Management," Chapter 14, delineates the mandatory functional training prescribed by the Office, Secretary of Defense, and the nonmandatory career enhancing courses for the 1102, 1103, 1105, 1106 (specialists engaged in purchasing activities), and 1150 (industrial specialists involved in the contracting process) occupational series. The plan can also be applied to personnel engaged in general business and industry occupational specialties, career field 1101, if the position requires a knowledge of contracting or if the individual wishes to be considered for employment in any of the other 1100 career fields. Additionally, this plan blends managerial and leadership requisites into the employee's long-term contracting and acquisition career development program. The Intern Program, detailed in AR 690-950, Chapter 14, Appendix B is not included in this edition of the ACTEDS Plan.

2. OBJECTIVES. This plan provides the structure for ensuring that contracting and acquisition personnel receive the necessary sequential training and development to define a progressive career pattern. This will allow maximum opportunity for high-potential individuals to advance and perform at their highest capability by:

a. Mandating completion of the contracting and acquisition courses required by OSD in DOD-wide Acquisition Personnel Career Program Manual 5000.52-M. This is Priority 1 Training and is essential to mission accomplishment.

b. Recommending completion of contracting and acquisition courses which complement and enhance the knowledge and skills acquired through Priority 1 Training. This is Priority 2 Training and directly affects the quality of mission accomplishment.

c. Encouraging participation in contracting and acquisition courses/programs that are desired, not required. This is Priority 3 Training and is professional enhancement.

3. STRUCTURE:

a. The Secretary of the Army is responsible for overall policy within the Department of the Army (DA).

b. The Deputy Chief of Staff for Personnel (DCSPER) is responsible for overall personnel management policy within DA.

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c. The Directorate of Civilian Personnel (DCP) is responsible for overall civilian personnel management policy within DA.

d. The U.S. Total Army Personnel Command (PERSCOM) will implement, evaluate, and manage civilian career programs/ management policy within DA.

e. A Functional Chief (FC) is designated for each career program. The FC for the Contracting and Acquisition Career Program is the Assistant Secretary of the Army (Research, Development and Acquisition). The FC will recommend, evaluate, and decide upon career program policies, procedures and requirements.

f. The Functional Chief may designate a senior official holding a top-level position in the Contracting and Acquisition Career Field to be the Functional Chief Representative (FCR).

g. The FCR for the Contracting and Acquisition Career Program is the Deputy Director, U.S. Army Contracting Support Agency.

h. The Functional Chief Representative, in addition to the duties delineated in AR 690-950, Chapter 1, will:

(1) Develop, implement and monitor the Contracting and Acquisition ACTEDS Plan.

(2) Identify Contracting and Acquisition career patterns depicting paths of job progression to key positions, including Senior Executive Service (SES).

(3) Identify Contracting and Acquisition competencies needed at each level for advancement.

(4) Select the proper blend of formal Contracting and Acquisition training and work assignments at each level to provide those competencies.

(5) Provide advice on Contracting and Acquisition career management.

(6) Chair the Army Contracting Career Program Planning Board.

(7) Represent the Army on the Defense Contracting Career Management Board (DCCMB).

i. A Career Program Manager (CPM) for Contracting and Acquisition will be identified at each MACOM to assist the FCR through the MACOM Commander. The CPM will discharge Contracting and Acquisition career program guidance to the Heads of Contracting Activities (HCAs) and the Principal Assistants Responsible for Contracting (PARCs).

j. The Director of Contracting (DOC) will serve as the Activity Career Program Manager (ACPM) and will be responsible to the PARC for ensuring that individual training information/ requirements are implemented. The ACPM is responsible for the development of local standing operating procedures for Contracting and Acquisition career development at his/her activity to include personnel in other staff offices such as the Small/Disadvantaged Business Utilization and Competition Advocate.

k. Supervisors, with direction from the DOC, will:

(1) Provide contracting career counseling, information and advice to employees on a continuing basis.

(2) Participate with employees in the preparation, periodic review, and revision of Individual Development Plans (IDP's). Reviews should be performed at least annually.

(3) Schedule and implement Contract and Acquisition training and development prescribed in the IDP. Supervisors must plan training and development in such a manner as to ensure that mission accomplishment is not adversely affected.

(4) Perform, at least once annually, an appraisal of employee's potential for growth and development and assist in defining Contracting and Acquisition career goals and methods to achieve these goals.

l. Contracting and Acquisition career employees will:

(1) Accomplish registration in Contracting and Acquisition programs (i.e., Army Civilian Career Evaluation System (ACCES)) and update career records as necessary.

(2) Identify career goals and their development including assignments to other positions within the Contracting and Acquisition career field.

(3) Participate in the formulation and preparation of IDP's.

(4) Apply continuous effort to improve knowledge, skills, and abilities required in the Contracting and Acquisition career program through self-development and training.

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4. KEY POSITIONS:

a. Definition.

Key Positions in the contracting and acquisition career field are positions at the GS/GM 13-15 levels and SES level involved in contract policy determination and implementation; development of acquisition strategies and plans for high-dollar complex contracts; selection of contractors for the award of sensitive programs/projects; execution of the small and disadvantaged business, and competition programs; supervision of the contract administration function at a major system plant or an entire military installation; senior cost/price and procurement analysts; and key positions identified under the Logistics and Acquisition Management Program (LOGAMP).

Specific position titles/functional responsibilities include, but are not limited, to the following:

(1) All Contract Senior Executives (SES) (2) Deputy Chief of Staff, Procurement and Production (3) Director, Procurement and Production Policy (4) Head of Contracting Activity (HCA) (5) Principal Assistant Responsible for Contracting (PARC) (6) Associate Director, Small/Disadvantaged Business Utilization or Small/Disadvantaged Business Utilization Specialist (7) Director of Contracting/Procurement (8) Program Executive Officer (PEO) (9) Program/Project Manager (PM), Deputy PM (10) Chief, Cost Analysis (11) Chief, Major or Non-Major Army Defense System Division (12) Chief, Contract Administration Division or Plant Representative Officer (13) Chief, Contract Compliance and Review (14)Sr./ Chief/Supervisory Procurement Analyst (15) Sr./Chief/ Supervisory Cost & Price Analyst (16) Contracting Officer (17) Chief, Contracting Division (18) Chief, Simplified Purchases Division (19) Multidisciplinary contracting positions identified as key positions under LOGAMP.

b. Management:

Effective 1 January 1990, key contracting and acquisition positions will be filled through the centralized referral procedure, Army Civilian Career Evaluation System (ACCES). In the interim, use of the Department of the Army Civilian Announcement Distribution System (DACADS) and merit promotion will be utilized.

The decision to select an individual is the supervisor's responsibility; however, the FCR will monitor the process. Selections for key Contracting and Acquisition positions at Headquarters, Department of the Army and Head of Contracting Activity levels must be coordinated with the FCR prior to

formal Civilian Personnel Office (CPO) offer and commitment. All other selections for key Contracting and Acquisition positions must be coordinated with the MACOM CPM prior to formal CPO job offer and commitment. Coordination documentation shall include evaluation factors, selection criteria, names/status of all applicants, name of interviewer, selecting official, and final basis for selection decision. To ensure that the selection process is not unduly delayed, the hiring official may presume concurrence if no notice to the contrary is received from the FCR/MACOM CPM, or his/her staff within ten days after selection documentation is mailed. Facsimile procedures could further expedite the selection process.

5. CAREER LADDER: Appendix C, Figures C-1 through C-9, present recommended career ladders for progression to key positions in each of the six Contracting and Acquisition functional areas. An overview of the direct and possible cross functional moves within the Contracting and Acquisition career ladder is contained at Appendix B. Although these career ladders are not considered the only way to reach a key position, they are the most likely avenue of progression. Individual career program planning and counseling by employees and their supervisors is essential; employees must set realistic career goals and determine specific training or experience requirements needed to achieve those goals.

6. COMPETENCIES: There are currently 51 Contracting competencies and 38 Small Purchase and other Simplified Purchase Procedures Competencies identified for the GS/GM 1100 Contracting and Acquisition career fields by the Federal Acquisition Institute (FAI). Figures A-1 and A-2 lists these competencies while Figures C-1 through C-8 incorporate the competencies into the Knowledge, Skill and Abilities (KSA) requisites of the Master Development Plan. There are no standardized competencies and KSA's listed for the GS-1101, General Business and Industry Specialist, due to the wide range of duties associated with this series. Individuals in this series will be registered in ACCES and will be provided opportunities for the same career development as other series in the Contracting and Acquisition career fields.

The preferred method of acquiring the competencies required to perform specific tasks is by attendance at Defense Management Education and Training (DMET) courses specifically established for this purpose. Another acceptable method is the completion of courses which have been approved as equivalent to specific DMET courses. While resident instruction of all courses is desirable, financial and scheduling constraints may restrict this training method. It will therefore be incumbent upon the ACPMs to aggressively pursue alternatives which are more cost-effective/conducive to mission accomplishment. These alternatives could be on-site training, employment of the Army Logistic Management College (ALMC) Satellite Education

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Network, sharing of training resources and costs by and with other DOD organizations within the local commuting area, or the development and use of Approved Off-Campus Instruction (AOCI). The ACPM should also research avenues to provide employees with agency/installation "unique" training (e.g. Automatic Data Processing Equipment (ADPE)).

Although the Army and local intern programs are the preferred way for new employees to enter the Contracting and Acquisition career field, it is expected and encouraged that individuals in the 1105 series (Purchasing Agent) and 1106 series (Procurement Clerk) positions enter the 1102 series through the locally developed Army Mobility, Opportunity and Development (AMOD) Program. High-potential employees in these and other related series who have the desire to become candidates for 1102 positions will need to receive a mixture of developmental assignments and training to compete for these positions. If resident instruction is not available or feasible, use of the Satellite Education Network, on-site training, correspondence courses, equivalent institutional training, and on-the-job training should be viewed as primary methods of acquiring training.

7. MASTER TRAINING PROGRAM: Appendix C identifies the levels of career and management development within the 1100 series. Each career field is divided into entry level, intermediate level and senior level with corresponding Priority 1 (mandatory), Priority 2 (recommended) and Priority 3 (desirable/competitive) training requisites. The training/courses listed at Priorities 2 and 3 are not to be interpreted as all-inclusive; these choices illustrate some of the available alternatives for continued professional development.

To the extent that available resources permit, Contracting and Acquisition personnel involved in pre-award functions are encouraged to take courses required for Contracting and Acquisition personnel involved in post-award functions and vice versa. Individuals (to include Procurement Analysts) that function in a "cradle to grave" Contracting and Acquisition environment will interpret all pre and post award courses to be Priority 1 requirements.

Organizations with specific Contracting and Acquisition functions that are not included within the Appendix C listings will need to amplify the contracting careerists training with agency "unique" courses (e.g., security, ADPE, Non-appropriated Funds (NAF)) at each level. The following courses, in addition to those listed as Priority 1 Courses, should also be viewed as Priority 1 Training:

a. AMC Installation Procurement Management System Course for Directors of Procurement of AMC depots, installations and selected (e.g., proving grounds).

b. Army Installation Management Course for Directors of Contracting of non-AMC installations (excludes contracting division chiefs in Engineer districts and Army medical centers).

c. Commercial Activities Course for contracting personnel engaged in the conduct of significant commercial activities studies.

d. Depot Operations Management Course for Directors of Procurement/Contracting at Army depots.

e. Management of Installation Level Contracts Course for all directors and division chiefs within the Directorate of Contracting.

f. On an individual basis, selected courses prescribed for Contracting and Acquisition enrollees in the LOGAMP Program.

In an effort to foster the awareness of organizational missions and functions, installation activities may consider it beneficial to the development of C & A personnel to establish summary level courses (e.g., the Army Installation Management Course). This will give entry-level individuals the knowledge of their parent organization's role in the Army and provide them with information on the significant contracting and acquisition issues pertinent to each part of that organization (e.g., Directorate of Engineering and Housing, Army Hospital, Directorate of Logistics). These courses would be Priority 2 Training.

It is highly recommended that each MACOM CPM review with cognizant PARCs the qualifications of each warranted contracting officer to ensure that all Priority 1 training requirements have been met. It is further recommended that each PARC require all contracting officers to supplement Priority 1 training with Priority 2 and 3 training no less than 2 courses every 3 years to keep abreast with contracting rules and regulations. This training will reiterate the responsibility and risk associated with the warrant and should be viewed as "Recertification Training" to be positively reflected on the Contracting Officer's Performance Evaluation.

Senior level Contracting and Acquisition careerists should submit applications for acceptance to competitive long term training programs such as Training With Industry (TWI), Senior Service Colleges, LOGAMP or The Procurement Intern Management Enhancement (PRIME) Program for maximum career enhancement.

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WAIVERS for participation in training courses are required when the careerist deems job experience/education or a combination thereof, to be equivalent to the approved Priority 1 Training.

The waiver request and justification, DA Form 2518, SEP 88, must be submitted to the PARC for approval. The Functional Chief, DA, will approve waiver requests for personnel in the PARC Offices. Waivers are not required for permission to substitute equivalent courses for approved Priority 1 Courses; this equivalency determination will be made and approved by the DOC.

8. COMPETITIVE DEVELOPMENT GROUP (CDG): This is not applicable to the Contracting and Acquisition career field.

9. MOBILITY REQUIREMENTS: Mandatory mobility serves two major purposes: (1) to enhance career progression by broadening and strengthening employees' background; and (2) to improve mission effectiveness by enabling management to transfer employees when necessary to specific areas of the world. DOD permits mandatory mobility programs to be developed when necessary to accommodate either of these purposes (DOD Directive 1400.23). The Army's supplementation of the Directive (CPR 336) states that within the Army, emphasis is placed on voluntary geographic and functional mobility. Mandatory mobility programs are permitted only when Army staffing requirements for a specific function or mission cannot be met through voluntary mobility on the part of the employee.

DA Form 5227-R (DA Employment and Mobility Agreement for DA Interns) is required as a condition for selection for all interns in the Contracting and Acquisition career field. Use of mobility agreements allows management to place graduating interns in available Contract and Acquisition positions Army-wide. Interns who fail to meet the terms set by the mobility agreement may be separated from the Federal Service.

Eligibility criteria for entry into Long-Term Training Programs (e.g., LOGAMP, Senior Service Colleges) require applicants to sign a mobility/participation agreement to include organizational, functional and/or geographic mobility.

While many employees can achieve their career goals in their geographic area, mobility is often a key factor for progression. Frequently, a geographic move is necessary for employees to obtain developmental experience essential to their career goals.

10. SELF-EVALUATION AND PLANNING: The careerist is responsible for establishing his or her own career goals and objectives, and planning a path to achieve these goals. This is an individual voluntary effort that is initiated and conducted by the employee. The employee's supervisor is expected to mentor, encourage and advise the careerist throughout the entire progression process and work with the employee to guide/recommend selection of the most advantageous on-the-job training, attendance at formal training courses and self-development programs. This process should be done at least yearly and should be delineated on the employee's IDP. The Appendices to this plan, AR 690-950, Chapter 14, and DOD Manual 5000.52-M provide written guidance to assist the Contracting and Acquisition careerist achieve his/her ultimate goals.

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CONTRACT MANAGEMENT

COMPETENCIES	BLUEPRINTS
1. Ability to advise and assist requiring activities in developing and maintaining program plans, budgets, and schedules to reflect procurement lead times, market conditions (e.g., vendor delivery terms), and procurement strategies.	1. NEED ANALYSIS
2. Ability to develop, maintain, and update acquisition plans.	2. ACQUISITION PLANNING
3. Ability to advise and assist requiring activities in formulating purchase requests to yield the best market response in terms of competition, quality, timeliness, price, and mission needs.	3.1 PURCHASE REQUESTS 3.2 SPECIFICATIONS 3.3 STATEMENTS OF WORK 3.4 SERVICES
4. Skill in advising and assisting requiring activities in formulating technical evaluation criteria; skill in preparing source selection plans.	4.1 TECHNICAL EVALUATION CRITERIA 4.2 SOURCE SELECTION PLANS
5. Ability to verify that sufficient funds are available prior to execution of a contract, contract modification, or supplemental agreement or ordering against an existing contract, etc.	5. FUNDING
6. Ability to identify and establish sources of supplies or services and conduct business-related market research.	6.1 SOURCE LISTS 6.2 MARKET RESEARCH
7. Skill in determining whether other than full and open competition is justified, given the nature of the requirement, market conditions, and procedural constraints.	7.1 COMPETITION REQUIREMENTS 7.2 UNSOLICITED PROPOSALS
8. Skill in applying the procedures for small business and labor surplus set-asides (including class set-asides) and skill in procuring supplies and services through the 8(a) program.	8.1 SET ASIDES 8.2 ELIGIBILITY FOR SET ASIDES 8.3 8(A) PROGRAM
9. Ability to determine the most appropriate method of procurement, given the nature of the requirement and market conditions (i.e., small purchase procedures, sealed bidding, competitive negotiations, or two-step sealed bidding).	9.1 METHOD OF PROCUREMENT 9.2 LEASE VS. PURCHASE

COMPETENCIES	BLUEPRINTS
10. Ability to select the most appropriate type of contract or agreement, given the nature of the requirement and market conditions.	10. CONTRACT TYPES
11. Skill in determining the necessity for contractor financing provisions (e.g., progress payments, advance payments, etc.).	11. CONTRACT FINANCING
12. Skill in preparing solicitation documents.	12. SOLICITATION PREPARATION
13. Skill in publicizing proposed procurements.	13. PUBLICIZING PROPOSED PROCUREMENTS
14. Skill in evaluating and responding to pre-award inquiries concerning solicitations, bids, and proposals.	14. PRE-AWARD INQUIRIES
15. Skill in determining the necessity for and conducting prebid/preproposal conferences.	15. PREBID/PREPROPOSAL CONFERENCES
16. Skill in amending solicitations, extending the solicitation period, and cancelling solicitations.	16.1 AMENDING SOLICITATIONS
	16.2 CANCELLING SOLICITATIONS
17. Skill in evaluating bids, including such aspects as disposing of late bids, determining responsiveness, and determining the lowest total price bid.	17.1 PROCESSING BIDS
	17.2 TIME EXTENSIONS FOR BIDS
	17.3 LATE OFFERS
	17.4 BID PRICES
	17.5 RESPONSIVENESS
18. Ability to identify and resolve mistakes in offers.	18. MISTAKES IN OFFERS
19. Skill in determining the responsibility of proposed offerors.	19. RESPONSIBILITY
20. Skill in evaluating proposals; ability to identify and request assistance in proposal evaluation from appropriate Government sources (e.g., technical, legal, or field pricing support) and analyze their recommendations; ability to obtain other data necessary for proposal evaluation.	20.1 PROCESSING PROPOSALS
	20.2 TECHNICAL EVALUATION
	20.3 CURRENT COST AND PRICING DATA
	20.4 AUDITS

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COMPETENCIES	BLUEPRINTS
21. Skill in analyzing market conditions and pricing data to develop and support the Government's prenegotiation position on price.	21. PRICE OBJECTIVES
22. Skill in analyzing proposed elements of cost to develop cost and profit prenegotiation positions, based on data from the offerors, inhouse estimates, technical evaluations, and audit reports.	22. COST ANALYSIS
23. Skill in factfinding with offerors.	23. FACTFINDING
24. Ability to establish the competitive range.	24. COMPETITIVE RANGE
25. Skill in developing negotiation strategies and tactics.	25. NEGOTIATION STRATEGY
26. Skill at conducting negotiation conferences with offeror's representatives.	26. CONDUCTING NEGOTIATIONS
27. Ability to develop and recommend selection for award.	27. SELECTION FOR AWARD
28. Ability to prepare and definitize letter contract.	28. LETTER CONTRACTS
29. Ability to apply procedures for awarding contracts and providing notice of awards.	29. AWARD
30. Ability to debrief unsuccessful offerors.	30. DEBRIEFING
31. Skill in developing the Government's position on protests before or after award.	31. PROTESTS
32. Ability to provide postaward orientations to contractors.	32. POSTAWARD ORIENTATIONS
33. Skill in developing contract administration plans and instructing technical representatives and functional specialists (e.g., quality assurance personnel) on their roles, authority, responsibilities, and limits.	33. CONTRACT ADMINISTRATION PLANNING
34. Skill in issuing orders against existing contracts/agreements.	34. ORDERS AGAINST CONTRACTS/AGREEMENTS
35. Skill in modifying contracts through administrative modifications, change orders, supplemental agreements, or exercising options.	35. CONTRACT MODIFICATIONS

COMPETENCIES	BLUEPRINTS
36. Ability to determine whether the contractor is progressing in accordance with the contract schedule and complying with other contract clauses; knowledge of inspection/acceptance procedures, requirements, and practices.	36. INSPECTION/ACCEPTANCE
37. Ability to determine whether delays are excusable and grant performance time extensions for excusable delays.	37. DELAYS
38. Skill in determining and issuing stop or resume work orders.	38. STOP WORK
39. Ability to apply techniques and instruments for dealing with the contractor's failure to perform (e.g., cure notices, show cause notices, refusal to accept deliveries, assessment of liquidated damages, negotiation of consideration for delinquent deliveries or items not meeting specifications.	39. REMEDIES
40. Skill in terminating contracts for the convenience of the Government or for default.	40. TERMINATION
41. Ability to manage payments to contractors (e.g., requests for progress payments, the processing of contractor invoices, release of claims, assignment of payments, adjusting contract fund requirements, the withholding and set-off of payments).	41.1 LIMITATION OF COSTS 41.2 INVOICES/WITHHOLDING OF PAYMENT 41.3 UNALLOWABLE COSTS 41.4 ASSIGNMENT OF PAYMENTS 41.5 DEMAND LETTERS FOR INDEBTEDNESS 41.6 PROGRESS PAYMENTS
42. Ability to implement contract closeout procedures.	42. CLOSEOUT
43. Knowledge of the procedures for reviewing and accepting the contractor's accounting and cost estimating systems; ability to monitor the contractor's financial condition.	43. ACCOUNTING AND COST ESTIMATING SYSTEMS
44. Ability to obtain and review cost accounting standard disclosure statements, determine whether audits of the statements are necessary, and negotiate cost impact adjustments.	44. COST ACCOUNTING STANDARDS

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COMPETENCIES	BLUEPRINTS
45. Ability to identify and resolve defective pricing actions.	45. DEFECTIVE PRICING
46. Knowledge of the process for settling claims and ability to determine the validity of claims and establish the Government's position on the amount of the equitable adjustment; knowledge of the disputes process.	46. CLAIMS
47. Ability to review and consent to proposed placements of subcontracts, ability to review subcontracting plans.	47.1 SUBCONTRACTING PLANS 47.2 CONSENT TO SUBCONTRACT
48. Ability to review requests and determine the need for Government property, special tooling, and special test equipment.	48.1 REQUESTS FOR PROPERTY 48.2 PROPERTY ADMINISTRATION
49. Ability to determine the requirement or desirability of bonds; ability to secure and administer bonds.	49. BONDS
50. Skill in initiating adverse actions for fraud and other civil or criminal offenses; ability to select evidence on performance failings for referral to debarment officials.	50. FRAUD AND DEBARMENT
51. General knowledge of the Procurement: Mission, System, Process, Organization, Management, Statutory and Regulatory Foundation, Roles and Responsibilities, and Standards of Conduct.	51. ORIENTATION

SMALL PURCHASE AND OTHER SIMPLIFIED PURCHASE PROCEDURES

COMPETENCIES	TASKS
1. Ability to advise and assist requiring activities in formulating purchase requests for small purchases.	1.1 Determine that purchase requests from the requiring activities are sufficient for a small purchase.
	1.2 Review specifications for the small purchase submitted by the requiring activity.
	1.3 Screen out requests for personal services under small purchase thresholds and determine the need and request wage determinations from the Department of Labor.
2. Ability to develop, maintain, and update informal procurement plans and milestones for complex small purchases.	2. Develop, maintain, and update informal procurement plans and milestones for complex small purchases.
3. Skill in advising and assisting requiring activities in formulating technical evaluation criteria for complex small purchases.	3.1 Review technical evaluation criteria for complex small purchases (when awards are not solely on price and price related factors).
	3.2 Prepare evaluation criteria (price and price related factors to be applied and weighting of technical versus price) for complex small purchases.
4. Ability to verify that sufficient funds are available prior to a small purchase.	4. Determine the availability of funds for a small purchase.
5. Ability to identify and establish sources of supplies or services and conduct market research.	5.1 Screen mandatory sources of (e.g., FSS, Handicapped and Prison Industries); develop source lists for small purchases.
	5.2 Conduct market research for small purchases.

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SMALL PURCHASE AND OTHER SIMPLIFIED PURCHASE PROCEDURES

COMPETENCIES	TASKS
6. Skill in determining whether competition is required for a small purchase.	6.1 Determine whether the absence of competition for a small purchase is justified.
	6.2 Finalize justifications, where required, for a single source procurement.
	6.3 Process unsolicited proposals under the small purchase threshold.
7. Skill in applying the procedures for small business/small purchase set-asides.	7.1 Determine whether the small purchase will not be a small business/small purchase set-aside.
	7.2 Determine if offerors are qualified for set-asides.
8. Ability to select the most appropriate method of purchasing.	8.1 Determine the need for and establish blanket purchase agreements.
	8.2 Select method of purchase (e.g., Imprest Fund Transaction, BPA Call, SF 44, OF 347).
	8.3 Determine the need and justify issuance of unpriced orders.
	8.4 Analyze lease versus purchase alternatives.
9. Ability to determine the most appropriate method of solicitation (e.g., oral versus requests for quotations (RFQs)).	9. Determine and document method of solicitation (oral versus RFQ).
10. Skill in conducting oral solicitations and preparing RFQs.	10.1 Establish dates for submission of quotations.
	10.2 Determine mandatory and optional provisions and contract clauses to include reference in the RFQ.
	10.3 Determine the need and develop special provisions and contract clauses for RFQs.

SMALL PURCHASE AND OTHER SIMPLIFIED PURCHASE PROCEDURES

COMPETENCIES	TASKS
	10.4 Complete and issue RFQs.
	10.5 Conduct oral solicitations.
	10.6 Select contract type.
11. Skill in publicizing proposed small purchases.	11.1 Determine whether publicity is necessary.
	11.2 Determine the method of publicity.
12. Skill in evaluating and responding to pre-award inquiries concerning RFQs or oral solicitations.	12. Evaluate and respond to inquiries concerning RFQs or oral solicitations.
13. Skill in determining the necessity for and conducting conferences on RFQs.	13. Prepare or conduct conferences to clarify RFQs.
14. Skill in amending RFQs and extending the solicitation period.	14.1 Amend RFQs.
	14.2 Cancel RFQs.
15. Skill in evaluating quotations including such aspects as considering late quotations and determining the lowest total price quotation.	15.1 Receive and control quotations.
	15.2 Determine whether to delay issuance of the purchase order received.
	15.3 Verify quotations from contractors after quotation expiration dates.
	15.4 Determine whether to consider late quotations.
	15.5 Apply Buy American Act evaluation criteria to small purchases.
	15.6 Determine the lowest total price and whether the lowest price is fair and reasonable (absent negotiations) for small purchases.

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SMALL PURCHASE AND OTHER SIMPLIFIED PURCHASE PROCEDURES

COMPETENCIES	TASKS
16. Skill in determining the need for discussions on small purchases.	16.1 Compare RFQ terms and conditions with those in quotations.
	16.2 Request verification of quotations.
	16.3 Determine whether to make the award on initial quotations.
	16.4 Select firms for discussions.
17. Skill in determining the responsibility of prospective small purchase suppliers.	17.1 Review the list of debarred, suspended, and ineligible contractors (including certificates of competency) for small purchases.
	17.2 Determine and document responsibility of proposed contractors (including certificates of competency) for small purchases.
18. Skill in analyzing market conditions and pricing data to develop and support the Government's pre-negotiation position on the price of a small purchase.	18. Conduct price analysis to develop small purchase negotiation objectives.
19. Skill in planning negotiation sessions for small purchases.	19. Plan negotiation sessions for small purchases.
20. Skill at conducting negotiation conferences with prospective vendors in small purchases.	20.1 Conduct negotiation sessions with vendors for small purchases.
	20.2 Conduct negotiation sessions with offerors in competitive range.
21. Ability to recommend contractor for award of a small purchase.	21.1 Document reasons for awarding to other than the lowest priced quotation.
	21.2 Document reasons for believing that the price is fair and reasonable when there is only one quotation.

SMALL PURCHASE AND OTHER SIMPLIFIED PURCHASE PROCEDURES

COMPETENCIES	TASKS
22. Ability to apply procedures for placing orders and/or making awards under small purchase thresholds.	22.1 Conduct Imprest Fund transactions.
	22.2 Prepare or complete and issue award orders/small purchase awards (e.g., SF 44, OF 347, etc.).
23. Skill in developing the Government's position on protests of small purchases.	23.1 Evaluate protests and prepare administrative reports (findings and recommendations) on protests of small purchases.
	23.2 Reserved.
24. Ability to provide post-award assistance to vendors on small purchases.	24. Providing continuing advice to contractors on terms and conditions of purchase orders.
25. Skill in issuing orders against existing contract/ agreements.	25.1 Issue calls against existing BPAs.
	25.2 Issue delivery orders against the Federal Supply Schedules and other indefinite delivery contracts.
26. Skill in modifying purchase orders and other small purchase awards through administrative changes, change orders, or supplemental agreements.	26.1 Coordinate with requiring activities on statement of work or specifications for modifications of purchase orders or other small purchase awards.
	26.2 Evaluate requests/proposals for modifying purchase orders or other small purchase awards.
	26.3 Negotiate and issue modifications of purchase orders or other small purchase awards.
	26.4 Issue administrative (no cost) changes for small purchases.
	26.5 Prepare or process and execute novation and change of name agreements for vendors in small purchases.

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SMALL PURCHASE AND OTHER SIMPLIFIED PURCHASE PROCEDURES

COMPETENCIES	TASKS
27. Ability to determine whether the contractor is progressing with the schedule and complying with other small purchase clauses; knowledge of inspection/acceptance procedures, requirements, and practices.	27.1 Evaluate contractors' progress towards meeting small purchase delivery and performance requirements.
	27.2 Obtain copies of receiving reports on small purchases (or otherwise verify delivery or failure to deliver).
	27.3 Identify failure to comply with contract provisions in small purchases.
28. Ability to determine whether delays are excusable and grant performance time extensions for excusable delays in small purchases.	28. Determine whether delays are excusable and grant performance time extensions for excusable delays in completing work under a small purchase award.
29. Skill in determining and issuing stop or resume work orders on small purchase work.	29. Determine need, prepare, and issue stop or resume work orders in small purchases.
30. Ability to apply techniques and instruments for dealing with the contractor's failure to perform.	30.1 Notify small purchase vendors of delinquencies or quality deficiencies.
	30.2 Negotiate consideration for delinquent deliveries or items not meeting specifications for small purchases.
	30.3 Determine need, prepare and issue cure notices for small purchases.
	30.4 Evaluate adequacy of contractor's responses to cure notices on small purchases.
	30.5 Determine, prepare, and issue show clause notices for small purchases.
	30.6 Identify and pursue available remedies in warranty guarantee, or latent defect cases involving small purchases.

SMALL PURCHASE AND OTHER SIMPLIFIED PURCHASE PROCEDURES

COMPETENCIES	TASKS
31. Skill in cancelling or terminating small purchase awards.	31.1 Determine need to cancel or terminate small purchase awards.
	31.2 Cancel small purchase awards prior to performance.
	31.3 Issue terminations of small purchase awards for convenience.
	31.4 Negotiate and execute settlement of termination for convenience.
	31.5 Determine need to terminate small purchase awards for default.
	31.6 Issue default terminations for small purchases.
32. Ability to manage payments to contractors for small purchases.	32.1 Review/approve contractor's invoices and vouchers for payment against purchase orders and other small purchase awards.
	32.2 Obtain corrections of improperly prepared invoices or vouchers against purchase orders and other small purchase awards.
	32.3 Review the processing of contractor's invoices and vouchers against purchase orders and other small purchase awards to expedite payment under the Prompt Payment Act.
	32.4 Reserved.
	32.5 Initiate recovery of contractor's indebtedness as a result of fast payment procedures under purchase orders and other small purchase awards.
	32.6 Review/approve or disapprove withholding payments against purchase orders and other small purchase awards.

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SMALL PURCHASE AND OTHER SIMPLIFIED PURCHASE PROCEDURES

COMPETENCIES	TASKS
33. Ability to close out purchases.	33. Close out purchase files.
34. Knowledge of the process for settling claims against purchase orders and other small purchase awards.	34. Analyze claims and recommend settlement positions; prepare findings of facts on claims against purchase orders and other small purchase awards.
35. Ability to review requests and determine the need for Government furnished property in small purchases.	35.1 Coordinate with other personnel on property control matters to open, inspect, and repair Government property.
	35.2 Evaluate and approve requests for Government furnished property for purchase orders.
	35.3 Determine if contractor's use of Government property or material conforms with contractual authorization in purchase orders.
	35.4 Assess contractor's for losses or damages to Government property or material under purchase orders.
36. Skill in initiating adverse actions for fraud, collusion, et al, involving small purchases.	36.1 Refer evidence on performance failings under purchase orders and other small purchase awards to debarment officials.
	36.2 Refer evidence of fraud and other civil or criminal offenses involving purchase orders and other small purchase awards to the Inspector General and other responsible parties.
37. Ability to maintain small purchase files.	37. Maintain small purchase files.
38. General knowledge of the small purchase mission, system, process, organization, management, statutory, and regulatory foundation, roles and responsibilities, and standards of conduct.	

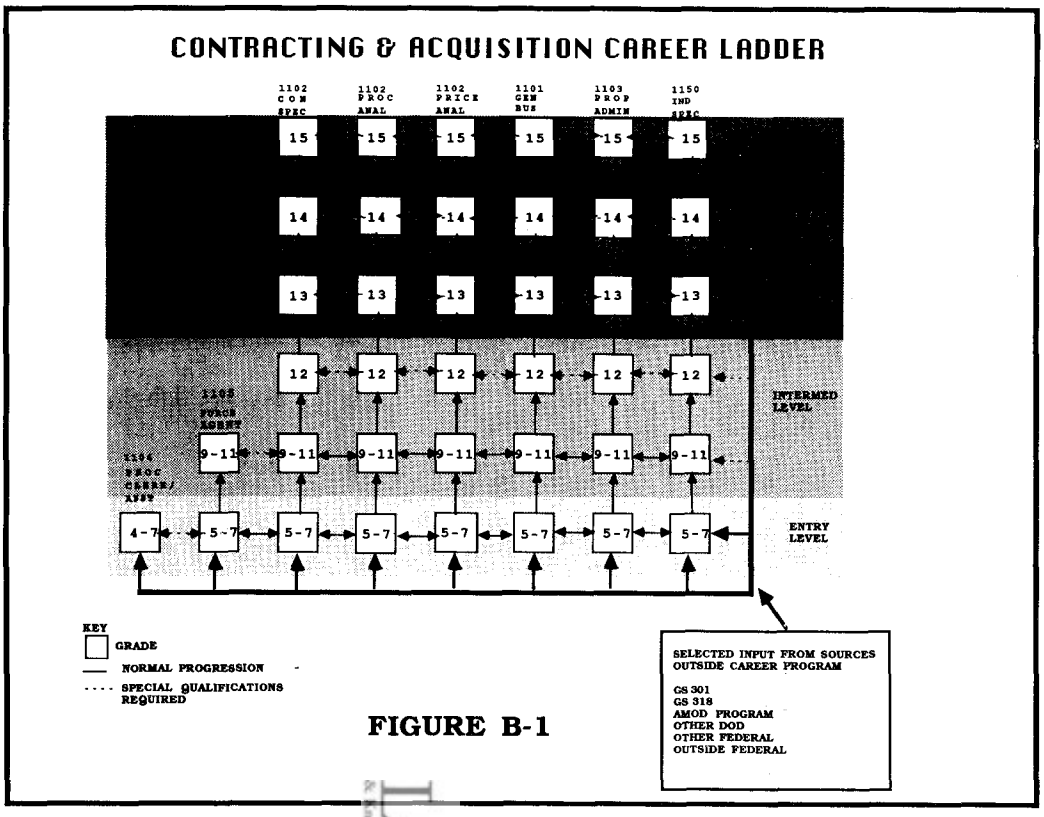

FIGURE B-1

Acker Library & Knowledge Repository

MASTER TRAINING PLAN: GS-1101, 5/8 - General Business/Industry - Entry Level
Desirable Education: Bachelors Degree with 24 Semester Hours of Business Administration

TRAINING	MODE & DURATION	SOURCE	KSAs TO BE ACQUIRED (SEE APPENDIX A)	EQUIVALENT DOD TRAINING
PRIORITY 1				
1. Management of Defense Acquisition Contracts (Basic) (8D-4320) (JT) Army Logistics Management College (ALMC), Fort Lee, VA	Resident, 4 weeks On Site, 4 weeks Satellite, 4 weeks AOCI, 4 weeks Correspondence	ALMC	1-28, 30-32, 34, 37-38, 40, 45-46, 48-51	1. a. Central/System Level Contracting (G30BR6531007) Air Training Command (ATC), Lowry AFB, CO b. Base Level Contracting (G30BR653100002) ATC c. University Programs (DOD Acquisition Education and Training Catalog) d. DOD equivalency test (Ref.(R) DODI 1430.11-M, DOD Civilian Career Knowledge Test Program, AUG 1978)
2. Principles of Contract Pricing QMT 170 (JT) Air Force Institute of Technology (AFIT), Wright-Patterson AFB, OH	Resident, 3 weeks On Site, 3 weeks Correspondence	AFIT	9-10, 20-26	2. a. Defense Cost & Price Analysis (PN) (JT) Navy (On Site) and Defense Contract Negotiation Workshop b. Base Level Pricing ATC c. University Programs (DOD Acquisition Education and Training Catalog) d. Extension Course Institute (ECI), Gunter AFB, AL (Correspondence) e. DOD equivalency test (Ref.(R) DODI 1430.11-M, DOD Civilian Career Knowledge Test Program, AUG 1978)
PRIORITY 2				
1. Acquisition Logistics (Integrated Logistics Support) (SYS 225)	Resident, 2 weeks	AFIT		
2. Installation Logistics Management Course (ALMC-IN)	Resident, 2 weeks On Site, 2 weeks	ALMC		
PRIORITY 3				
1. Related College Courses to Enhance Professional Skills				

Figure C-1

MASTER TRAINING PLAN: GS-1101, 9/12 - General Business/Industry - Intermediate Level
Desirable Education: Graduate studies in pursuit of Masters Degree in Business, Contracting or related fields

TRAINING	MODE & DURATION	SOURCE	KSAs TO BE ACQUIRED (SEE APPENDIX A)	EQUIVALENT DOD TRAINING
PRIORITY 1				
1. Management of Defense Acquisition Contracts (Advanced) (8D-F12)	Resident, 3 weeks On Site, 3 weeks Satellite	ALMC	1-10, 12-13, 15, 17-18, 20-27, 31, 33, 35-41, 43, 45-48, 50-51	1. a. University Programs (DOD Acquisition Education and Training Catalog) b. DOD equivalency test (Ref.(R) DODI 1430.11-M, DOD Civilian Career Knowledge Test Program, AUG 1978)
2. Government Contract Law (PPM 302) (JT)	Resident, 2 weeks	AFIT	3-4, 7, 15-20, 24, 26-27, 29-31, 36-41, 45-46, 49-50	2. a. Base Contract Law, ATC b. Defense Contract Law Navy (On Site) c. University Programs (DOD Acquisition Education and Training Catalog) d. ECI 6607 e. DOD equivalency test (Ref.(R) DODI 1430.11-M, DOD Civilian Career Knowledge Test Program, AUG 1978)
PRIORITY 2				
1. Fundamentals of Systems Acquisition Management (DSMC-26) (JT) Defense Systems Management College (DSMC), Fort Belvoir, VA	Resident, 1 week	DSMC		
2. Financial Management in Weapons Systems Acquisition (SYS 227)	Resident, 2 weeks	AFIT		
3. Management of Acquisition Logistics (DSMC-24) (JT)	Resident, 1 week	DSMC		
4. Leadership and Team Building Army Management Engineering College Rock Island, IL (AMEC 54)	Resident, 1 week	AMEC		

Figure C-1

Acker Library & Knowledge Repository

MASTER TRAINING PLAN: GS-1101, 9/12 - General Business/Industry - Intermediate Level
Desirable Education: Graduate studies in pursuit of Masters Degree in Business, Contracting or related fields

TRAINING	MODE & DURATION	SOURCE	KSAs TO BE ACQUIRED (SEE APPENDIX A)	EQUIVALENT DOD TRAINING
PRIORITY 3				
1. Related College Courses				
2. Membership and Participation in Professional and Civic Organizations (e.g., NCMA)				
3. Certificate Program in Contract Management				
4. LOGAMP (Grade 12)				
5. PRIME (Grade 12)				

Figure C-1

MASTER TRAINING PLAN: GS/GM-1101, 13, 14, 15 - General Business/Industry - Senior Level
Desirable Education: Masters Degree in Business, Contracting or related fields

TRAINING	MODE & DURATION	SOURCE	KSAs TO BE ACQUIRED (SEE APPENDIX A)	EQUIVALENT DOD TRAINING
PRIORITY 1				
1. Management of Defense Acquisition Contracts (Executive) (ALMC-B5) (JT)	Resident, 1 week	ALMC	1-51	
2. Defense Acquisition and Contracting Executive Seminar ER (JT)	On Site, 1 week (at announced locations)	Navy	1-51	
PRIORITY 2				
1. Army Installation Management Course 1B-F1	Resident, 3 weeks	ALMC		
2. Management Skills Improvement Course, (AMEC-64 JT)	Resident, 1 week	AMEC		
3. Executive Refresher Course in Acquisition Management (DSMC-2) (JT)	Resident, 2 weeks	DSMC		
PRIORITY 3				
1. Program Management Course (DSMC-3)	Resident, 6 months	DSMC		
2. Senior Service Colleges	LTT	Various Locations		
3. Training With Industry (TWI)	LTT	Various Locations		
4. LOGAMP	LTT	Various Locations		
5. PRIME	LTT	HQ DA		
6. Personnel Management for Executives (PME)	On Site	Williamsburg, VA		
7. Membership & Participation in Professional and Civic Organizations (e.g., NCMA)				

Figure C-1

Acker Library & Knowledge Repository

MASTER TRAINING PLAN: GS-1102, 5/8 - Contracting - Entry Level, Pre-Award
Desirable Education: Bachelors Degree with 24 Semester Hours of Business Administration

TRAINING	MODE & DURATION	SOURCE	KSAs TO BE ACQUIRED (SEE APPENDIX A)	EQUIVALENT DOD TRAINING
PRIORITY 1				
1. Management of Defense Acquisition Contracts (Basic) (8D-4320) (JT)	Resident, 4 weeks On Site, 4 weeks Satellite, 4 weeks AOCI, 4 weeks Correspondence	ALMC	1-10, 12-13, 15, 17-18, 20-27, 31, 33, 35-41, 43, 45-48, 50-51	1. a. Central/System Level Contracting (G30BR6531002) ATC b. Base Level Contracting (G30BR653100002) ATC c. University Programs (DOD Acquisition Education and Training Catalog) d. DOD equivalency test (Ref.(R) DODI 1430.11-M, DOD Civilian Career Knowledge Test Program, AUG 1978)
2. Principles of Contract Pricing QMT 170 (JT)	Resident, 3 weeks On Site, 3 weeks Correspondence	AFIT	9-10, 20-26	2. a. Defense Cost & Price Analysis (PN) (JT) Navy (On Site) and Defense Contract Negotiation Workshop b. Base Level Pricing ATC c. University Programs (DOD Acquisition Education and Training Catalog) d. ECI 6610 (Correspondence) e. DOD equivalency test (Ref.(R) DODI 1430.11-M, DOD Civilian Career Knowledge Test Program, AUG 1978)

Figure C-2

MASTER TRAINING PLAN: GS-1102, 5/8 - Contracting - Entry Level, Pre-Award
Desirable Education: Bachelors Degree with 24 Semester Hours of Business Administration

TRAINING	MODE & DURATION	SOURCE	KSAs TO BE ACQUIRED (SEE APPENDIX A)	EQUIVALENT DOD TRAINING
PRIORITY 2				
1. Defense Small Purchases (Basic) (ALMC-B3)	Resident, 1 week On Site, 1 week Satellite Correspondence	ALMC	1, 4-12, 14-22, 24-27, 30-33, 35-38	
2. Installation Logistics Management Course (ALMC-1N)	Resident, 2 weeks On Site, 2 weeks	ALMC		
3. Management of Installation Level Contracts (ALMC-1B) *	Resident, 2 weeks	ALMC		
PRIORITY 3				
1. Related college courses to enhance professional skills				

* - Mandatory for Installation Level Contracting Personnel

Figure C-2

Acker Library & Knowledge Repository

MASTER TRAINING PLAN: GS-1102, 9/12 - Contracting - Intermediate Level, Pre-Award
Desirable Education: Graduate studies in pursuit of Masters Degree in Business, Contracting or related fields

TRAINING	MODE & DURATION	SOURCE	KSAs TO BE ACQUIRED	EQUIVALENT DOD TRAINING
PRIORITY 1				
1. Management of Defense Acquisition Contracts (Advanced) (8D-F12)	Resident, 2 weeks On Site, 2 weeks Satellite	ALMC	1-10, 12-13, 15, 17-18, 20-27, 31, 33, 35-41, 45-48, 50-51	1. a. University Programs (DOD Acquisition Education and Training Catalog) b. DOD equivalency test (Ref.(R) DODI 1430.11-M, DOD Civilian Career Knowledge Test Program, AUG 1978)
2. Government Contract Law (PPM 302) (JT)	Resident, 2 weeks ECI 6607	AFIT	3, 4, 7, 15-20, 24, 26-27, 29-31, 36-41, 45-46, 49-50	2. a. Base Contract Law ATC b. Defense Contract Law Navy (On Site) c. University Programs (DOD Acquisition Education and Training Catalog) d. ECI 6607 e. DOD equivalency test (Ref.(R) DODI 1430.11-M, DOD Civilian Career Knowledge Test Program, AUG 1978)
3. Management of Defense Acquisition Contracts (Executive) * (ALMC-B5)	Resident, 1 week	ALMC	51	
4. Defense Contracting for Information Resources ** (ALMC-ZX)	Resident, 2 weeks On Site, 2 weeks	ALMC	51	
5. Systems Acquisition for Contracting Personnel *** (PDS Code: BCN)	Resident, 2 weeks	ALMC	51	

Figure C-2

MASTER TRAINING PLAN: GS-1102, 9/12 - Contracting - Intermediate Level, Pre-Award
Desirable Education: Graduate studies in pursuit of Masters Degree in Business, Contracting or related fields

TRAINING	MODE & DURATION	SOURCE	KSAs TO BE ACQUIRED	EQUIVALENT DOD TRAINING
PRIORITY 2				
1. Management of Installation Level Contracts (ALMC-1B) ****	Resident, 2 weeks	ALMC		
2. Contractual Aspects of Value Engineering - PPM 306	Resident, 1 week	AFIT		
3. Contract Administration (Advanced) PPM 304	Resident, 2 weeks	AFIT	2-4, 6-9, 12-18, 20, 26, 28-33, 35, 39-40, 46-49, 51	
4. Leadership and Team Building AMEC 154	Resident, 1 week	AMEC		
PRIORITY 3				
1. Related College Courses				
2. Membership and Participation in Professional and Civic Organizations (e.g., NCMA)				
3. Certificate Program in Contract Management				
4. LOGAMP (Grade 12)				
5. PRIME (Grade 12)				

* - Mandatory for GS-12 Contracting Officers
** - Mandatory if involved in Award or Administration of ADPE
*** - Mandatory for Contracting Officers within one year of assignment to a major program
**** - Mandatory for Installation Level Contracting Personnel

Figure C-2

Acker Library & Knowledge Repository

MASTER TRAINING PLAN: GS/GM-1102, 13, 14, 15 - Contracting - Senior Level, Pre-Award
Desirable Education: Masters Degree in Business, Contracting or related fields

TRAINING	MODE & DURATION	SOURCE	KSAs TO BE ACQUIRED (SEE APPENDIX A)	EQUIVALENT DOD TRAINING
PRIORITY 1				
1. Defense Acquisition and Contracting Executive Seminar * (ER) (JT)	On Site, 1 week (at announced locations)	Navy	1-51	
2. Management of Defense Acquisition Contracts (Executive) (ALMC-B5) (JT)	Resident, 1 week	ALMC	1-51	
3. Major Systems Acquisition for Contracting Personnel (DSMC-31) **	Resident	DSMC		
PRIORITY 2				
1. Army Installation Management Course 1B-F1	Resident, 3 weeks	ALMC		
2. Management Skills Improvement Course, (AMEC-64 JT)	Resident, 1 week	AMEC		
3. Executive Refresher Course in Acquisition Management (DSMC-2) (JT)	Resident, 2 weeks	DSMC		
PRIORITY 3				
1. Program Management Course (DSMC-3)	Resident, 6 months	DSMC		
2. Senior Service Colleges	LTT	Various Locations		
3. Training With Industry (TWI)	LTT	Various Locations		
4. LOGAMP	LTT	Various Locations		
5. PRIME	LTT	HQ DA		
6. Personnel Management for Executives (PME)	On Site	Williamsburg, VA		
7. Membership & Participation in Professional and Civic Organizations (e.g., NCMA)				

* - Should be attended every 3-5 years
** - Mandatory if assigned to a Systems Program Office of a Major System Acquisition IAW DOD 5000.1 and DODD 5000.2

Figure C-2

MASTER TRAINING PLAN: GS-1102, 5/8 - Contracting - Entry Level, Post-Award
Desirable Education: Bachelors Degree with 24 Semester Hours of Business Administration

TRAINING	MODE & DURATION	SOURCE	KSAs TO BE ACQUIRED (SEE APPENDIX A)	EQUIVALENT DOD TRAINING
PRIORITY 1				
1. Management of Defense Acquisition Contracts (Basic) (8D-4320) (JT)	Resident, 4 weeks On Site, 4 weeks Satellite, 4 weeks AOCI, 4 weeks Correspondence	ALMC	1-28, 30-32, 37-38, 40, 45-46, 48-51	1. a. Central/System Level Contracting (G30BR6531002) ATC b. Base Level Contracting (G30BR653100002) ATC c. University Programs (DOD Acquisition Education and Training Catalog) d. DOD equivalency test (Ref.(R) DODI 1430.11-M, DOD Civilian Career Knowledge Test Program, AUG 1978)
2. Principles of Contract Pricing QMT 170 (JT)	Resident, 3 weeks On Site, 3 weeks Correspondence	AFIT	9-10, 20-26	2. a. Defense Cost & Price Analysis (PN) (JT) Navy (On Site) and Defense Contract Negotiation Workshop b. Base Level Pricing ATC Lowery AFB, CO c. University Programs (DOD Acquisition Education and Training Catalog) d. ECI 6610 (Correspondence) e. DOD equivalency test (Ref.(R) DODI 1430.11-M, DOD Civilian Career Knowledge Test Program, AUG 1978)

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Figure C-3

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MASTER TRAINING PLAN: GS-1102, 5/8 - Contracting - Entry Level, Post-Award
Desirable Education: Bachelors Degree with 24 Semester Hours of Business Administration

TRAINING	MODE & DURATION	SOURCE	KSAs TO BE ACQUIRED (SEE APPENDIX A)	EQUIVALENT DOD TRAINING
PRIORITY 2				
1. Defense Small Purchases (Basic) (ALMC-B3)	Resident, 1 week On Site, 1 week Satellite Correspondence	ALMC	1, 4-12, 14-22, 24-27, 30-33, 35-38	
2. Installation Logistics Management Course (ALMC-IN)	Resident, 2 weeks	ALMC		
PRIORITY 3				
1. Related college courses to enhance professional skills				

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Figure C-3

MASTER TRAINING PLAN: GS-1102, 9/12 - Contracting - Intermediate Level, Post-Award
Desirable Education: Graduate courses in pursuit of Masters Degree in Business, Contracting or related fields

TRAINING	MODE & DURATION	SOURCE	KSAs TO BE ACQUIRED (SEE APPENDIX A)	EQUIVALENT DOD TRAINING
PRIORITY 1				
1. Contract Administration (Advanced) PPM 304 (JT)	Resident, 2 weeks On Site, 2 weeks	ALMC	2-4, 6-9, 12-18, 20, 26, 28-33, 35, 39-40, 46-49, 51	
2. Government Contract Law PPM 302 (JT)	Resident, 2 weeks	AFIT	3-4, 7, 15-20, 24, 26-27, 29-31, 36-41, 45-46, 49-50	2. a. Base Contract Law ATC b. Defense Contract Law Navy (On Site) c. University Programs (DO Acquisition Education and Training Catalog) d. ECI 6607 e. DOD equivalency test (Ref. (R) DODI 1430.11-M, DOD Civilian Career Knowledge Test Program, AUG 1978)
3. Contract Administration (Executive) PPM 057 (Mandatory for GS-12 Contracting Officers)	Resident, 1 week	AFIT	1-51	
PRIORITY 2				
1. Management of Installation Level Contracts (ALMC-1B) *	Resident, 2 weeks	ALMC		
2. Management of Defense Acquisition Contracts (Advanced) 8D-F12	Resident, 2 weeks On Site, 2 weeks Satellite	ALMC	1-10, 12-13, 15, 17-18, 20-27, 31, 33, 35-41, 45-48, 50-51	
3. Contractual Aspects of Value Engineering - PPM 306	Resident, 1 week	AFIT		
4. Leadership and Team Building AMEC 154	Resident, 1 week	AMEC		
5. Defense Contracting for Information Resources (ALMC-ZX)	Resident, 2 weeks On Site, 2 weeks	ALMC	51	

Figure C-3

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MASTER TRAINING PLAN: GS-1102, 9/12 - Contracting - Intermediate Level, Post-Award
Desirable Education: Graduate courses in pursuit of Masters Degree in Business, Contracting or related fields

TRAINING	MODE & DURATION	SOURCE	KSAs TO BE ACQUIRED (SEE APPENDIX A)	EQUIVALENT DOD TRAINING
PRIORITY 3				
1. Related College Courses				
2. Membership and Participation in Professional and Civic Organizations (e.g., NCMA)				
3. Certificate Program in Contract Management				
4. LOGAMP (Grade 12)				
5. PRIME (Grade 12)				

* - Mandatory for Installation Level Contracting Personnel

Figure C-3

MASTER TRAINING PLAN: GS/GM-1102, 13, 14, 15 - Contracting - Senior Level, Post-Award
Desirable Education: Masters Degree in Business, Contracting or related fields

TRAINING	MODE & DURATION	SOURCE	KSAs TO BE ACQUIRED (SEE APPENDIX A)	EQUIVALENT DOD TRAINING
PRIORITY 1				
1. Defense Acquisition and Contracting Executive Seminar * (ER) (JT)	On Site, 1 week (at announced locations)	Navy	1-51	
2. Contract Administration (Executive) (PPM 057) (JT)	Resident, 1 week	AFIT	1-51	
3. Major Systems Acquisition for Contracting Personnel (DSMC-31) **	Resident, 2 weeks	DSMC	1-51	
PRIORITY 2				
1. Army Installation Management Course 1B-F1	Resident, 3 weeks	ALMC		
2. Management Skills Improvement Course, AMEC-64JT)	Resident, 1 week	AMEC		
3. Executive Refresher Course in Acquisition Management (DSMC-2) (JT)	Resident, 2 weeks	DSMC		
PRIORITY 3				
1. Program Management Course (DSMC-3)	Resident, 6 months	DSMC		
2. Senior Service Colleges	LTT	Various Locations		
3. Training With Industry (TWI)	LTT	Various Locations		
4. LOGAMP	LTT	Various Locations		
5. PRIME	LTT	HQ DA		
6. Personnel Management for Executives (PME)	On Site	Williamsburg, VA		
7. Membership & Participation in Professional and Civic Organizations (e.g., NCMA)				

* - Should be attended every 3-5 years

** - Mandatory if assigned to a Systems Program Office of a Major System Acquisition IAW DOD 5000.I and DODD 5000.2

Figure C-3

Acker Library & Knowledge Repository

MASTER TRAINING PLAN: GS-1102, 5/8 - Contracting - Entry Level, Cost & Pricing Oriented
Desirable Education: Bachelors Degree with 24 Semester Hours of Business Administration

TRAINING	MODE & DURATION	SOURCE	KSAs TO BE ACQUIRED (SEE APPENDIX A)	EQUIVALENT DOD TRAINING
PRIORITY 1				
1. Management of Defense Acquisition Contracts (Basic) (8D-4320) (JT)	Resident, 4 weeks On Site, 4 weeks Satellite, 4 weeks AOCI, 4 weeks Correspondence	ALMC	1-28, 30-32, 37-38, 40, 45-46, 48-51	1. a. Central/System Level Contracting (G30BR6531002) ATC b. Base Level Contracting (G30BR653100002) ATC c. University Programs (DOD Acquisition Education and Training Catalog) d. DOD equivalency test (Ref.(R) DODI 1430.11-M, DOD Civilian Career Knowledge Test Program, AUG 1978)
2. Principles of Contract Pricing QMT 170 (JT)	Resident, 3 weeks On Site, 3 weeks Correspondence	AFIT	9-10, 20-26	2. a. Defense Cost & Price Analysis (PN) (JT) Navy (On Site) and Defense Contract Negotiation Workshop b. Base Level Pricing ATC c. University Programs (DOD Acquisition Education and Training Catalog) d. ECI 6610 (Correspondence) e. DOD equivalency test (Ref.(R) DODI 1430.11-M, DOD Civilian Career Knowledge Test Program, AUG 1978)
PRIORITY 2				
1. Cost Improvement Curve Analysis QMT 180	Resident, 1 week	AFIT		
2. Installation Logistics Management Course (ALMC-1N)	Resident, 2 weeks	ALMC		

Figure C-4

MASTER TRAINING PLAN: GS-1102, 5/8 - Contracting - Entry Level, Cost & Pricing Oriented
Desirable Education: Bachelors Degree with 24 Semester Hours of Business Administration

TRAINING	MODE & DURATION	SOURCE	KSAs TO BE ACQUIRED (SEE APPENDIX A)	EQUIVALENT DOD TRAINING
PRIORITY 3				
1. Related college courses to enhance professional skills				

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Figure C-4

Acker Library & Knowledge Repository

MASTER TRAINING PLAN: GS-1102, 9/12 - Contracting - Intermediate Level, Pricing
Desirable Education: Graduate courses in pursuit of Masters Degree in Business, Contracting or related fields

TRAINING	MODE & DURATION	SOURCE	KSAs TO BE ACQUIRED	EQUIVALENT DOD TRAINING
PRIORITY 1				
1. Government Contract Law PPM 302 (JT)	Resident, 2 weeks	AFIT	3-4, 7, 15-20, 24, 26-27, 29-31, 36-41, 45-46, 49-50	1. a. Base Contract Law ATC b. Defense Contract Law Navy (On Site) c. ECI 6607 d. University Programs (DOD Acquisition Education and Training Catalog) e. DOD equivalency test (Ref.(R) DODI 1430.11-M, DOD Civilian Career Knowledge Test Program, AUG 1978)
2. Quantitative Technicques for Cost and Price Analysis, QMT 345 (JT)	Resident, 3 weeks	AFIT	20-22	
3. Defense Contracting for Information Resources (ALMC-ZX) *	Resident, 2 weeks On Site, 2 weeks	AFIT	1-51	
PRIORITY 2				
1. Introduction to Life Cycle Costing QMT 353	Resident, 2 weeks	AFIT		
2. Contractor Overhead Monitorship QMT 355	Resident, 2 weeks	AFIT		
3. Management of Defense Acquisition Contracts (Advanced) (8D-F12)	Resident, 3 weeks On Site, 3 weeks Satellite	ALMC	1-10, 12-13, 15, 17-18, 20-27, 31, 33, 35-41, 45-48, 50-51	
4. Leadership and Team Building AMEC 154	Resident, 1 week	AMEC		

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Figure C-4

MASTER TRAINING PLAN: GS-1102, 9/12 - Contracting - Intermediate Level, Pricing
Desirable Education: Graduate courses in pursuit of Masters Degree in Business, Contracting or related fields

TRAINING	MODE & DURATION	SOURCE	KSAs TO BE ACQUIRED	EQUIVALENT DOD TRAINING
PRIORITY 3				
1. Related College Courses				
2. Membership and Participation in Professional and Civic Organizations (e.g., NCMA)				
3. Certificate Program in Contract Management			* - Mandatory if involved in Award or Administration of ADPE	
4. LOGAMP (Grade 12)				
5. PRIME (Grade 12)				

Figure C-4

Acker Library & Knowledge Repository

MASTER TRAINING PLAN: GS/GM-1102, 13, 14, 15 - Contracting - Senior Level, Pricing
Desirable Education: Masters Degree in Business, Contracting or related fields

TRAINING	MODE & DURATION	SOURCE	KSAs TO BE ACQUIRED (SEE APPENDIX A)	EQUIVALENT DOD TRAINING
PRIORITY 1				
1. Advanced Contract Pricing QMT 540 (JT)	Resident, 2 weeks	AFIT	20-22	
2. Defense Acquisition and Contracting Executive Seminar ER (JT) **	On Site, 1 week	Navy	1-51	
3. Major Systems Acquisition for Contracting Personnel * (DSMC-31)	Resident, 2 weeks	DSMC	1-51	
PRIORITY 2				
1. Army Installation Management Course 1B-F1	Resident, 3 weeks	ALMC		
2. Management Skills Improvement Course, AMEC-64JT)	Resident, 1 week	AMEC		
3. Executive Refresher Course in Acquisition Management (DSMC-2) (JT)	Resident, 2 weeks	DSMC		
PRIORITY 3				
1. Program Management Course (DSMC-3)	Resident, 6 months	DSMC		
2. Senior Service Colleges	LTT	Various Locations		
3. Training With Industry (TWI)	LTT	Various Locations		
4. LOGAMP	LTT	Various Locations		
5. PRIME	LTT	HQ DA		
6. Personnel Management for Executives (PME)	On Site	Williamsburg, VA		
7. Membership & Participation in Professional and Civic Organizations (e.g., NCMA)				

* - Mandatory if assigned to a Systems Program Office of a Major Systems Acquisition
** - Should be attended every 3-5 years

Figure C-4

MASTER TRAINING PLAN: GS-1103, 5/8 - Industrial Property/Plant Clearance Specialist - Entry Level
Desirable Education: Associates Degree or Equivalent

TRAINING	MODE & DURATION	SOURCE	KSAs TO BE ACQUIRED (SEE APPENDIX A)	EQUIVALENT DOD TRAINING
PRIORITY I				
1. Industrial Property Administration (PPM 151) (JT)	Resident, 3 weeks	AFIT	14, 42, 48, 51	1. a. University Programs (DOD Acquisition Education and Training Catalog) b. DOD equivalency test (Ref.(R) DODI 1430.11-M, DOD Civilian Career Knowledge Test Program, AUG 1978)
2. Management of Defense Acquisition Contracts (Basic) (8D-4320) (JT)	Resident, 4 weeks On Site, 4 weeks Satellite, 4 weeks AOCI, 4 weeks Correspondence	ALMC	1-28, 30-32, 34, 37-38, 40, 45-46, 48-51	2. a. Central/System Level Contracting (G30BR6531002) ATC Lowery AFB, CO b. Base Level Contracting (G30BR653100002) ATC Lowery AFB, CO c. University Programs (DOD Acquisition Education and Training Catalog) d. DOD equivalency test (Ref.(R) DODI 1430.11-M, DOD Civilian Career Knowledge Test Program, AUG 1978)
3. Defense Contract Property Disposition (ALMC-TY)	Resident, 1 week On Site, 1 week	ALMC	42, 48	
PRIORITY 2				
1. Industrial Preparedness Management (7D-F20)	Resident, 1 week	AMEC		
PRIORITY 3				
1. Related college courses to enhance professional skills				

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Figure C-5

Acker Library & Knowledge Repository

MASTER TRAINING PLAN: GS-1103, 9/12 - Industrial Property/Plant Clearance Specialist, Intermediate Level
Desirable Education: Associates Degree with a Business Major

TRAINING	MODE & DURATION	SOURCE	KSAs TO BE ACQUIRED (SEE APPENDIX A)	EQUIVALENT DOD TRAINING
PRIORITY I				
1. Advanced Property Administration PPM 300 (JT)	Resident, 2 weeks On Site, 2 weeks	AFIT	10, 12, 42, 48, 51	
PRIORITY 2				
1. Contract Administration (Advanced) PPM 304	Resident, 2 weeks On Site, 2 weeks	AFIT	2-4, 6-9, 12-18, 20, 26, 28-33, 35, 39-40, 46-49, 51	
2. Defense Inventory Management (8B-F11)	Resident, 4 weeks	ALMC		
3. Leadership and Team Building AMEC 154	Resident, 1 week	AMEC		
PRIORITY 3				
1. Government Contract Law	Resident, 2 weeks	AFIT	3, 4, 7, 15-20, 24, 26, 27, 29-31, 36-41, 45-46, 49-50	1. a. Base Contract Law ATC b. Defense Contract Law Navy (On Site) c. ECI 6607 d. University Programs (DOD Acquisition Education and Training Catalog) e. DOD equivalency test (Ref.(R) DODI 1430.11-M, DOD Civilian Career Knowledge Test Program, AUG 1978)
2. Related College Courses				
3. Membership and Participation in Professional and Civic Organizations (e.g., NCMA)				
4. Certificate Program in Contract Management				
5. LOGAMP (Grade 12)				
6. PRIME (Grade 12)				

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Figure C-5

MASTER TRAINING PLAN: GS/GM-1103, 13, 14, 15 - Industrial Property/Plant Clearance Specialist, Senior Level
Desirable Education: Bachelors Degree with a Business-related Major

TRAINING	MODE & DURATION	SOURCE	KSAs TO BE ACQUIRED (SEE APPENDIX A)	EQUIVALENT DOD TRAINING
PRIORITY 1				
1. Defense Acquisition and Contracting Executive Seminar ER (JT) *	On Site, 1 week (at announced locations)	Navy	1-51	
PRIORITY 2				
1. Army Installation Management Course 1B-F1	Resident, 3 weeks	ALMC		
2. Management Skills Improvement Course,(AMEC-64 JT)	Resident, 1 week	AMEC		
3. Executive Refresher Course in Acquisition Management (DSMC-2) (JT)	Resident, 2 weeks	DSMC		
PRIORITY 3				
1. Program Management Course (DSMC-3)	Resident, 6 months	DSMC		
2. Senior Service Colleges	LTT	Various Locations		
3. Training With Industry (TWI)	LTT	Various Locations		
4. LOGAMP	LTT	Various Locations		
5. PRIME	LTT	HQ DA		
6. Personnel Management for Executives (PME)	On Site	Williamsburg, VA		
7. Membership & Participation in Professional and Civic Organizations (e.g., NCMA)				

* - Should be attended every 3-5 years

Figure C-5

Acker Library & Knowledge Repository

MASTER TRAINING PLAN: GS-1105, 4/6 - Purchasing Agent, Entry Level
Desirable Education: Associates Degree or 64 Semester Hours of Undergraduate Work

TRAINING	MODE & DURATION	SOURCE	KSAs TO BE ACQUIRED (SEE APPENDIX A)	EQUIVALENT DOD TRAINING
PRIORITY 1				
1. Defense Small Purchases (Basic) ALMC-B3 (JT)	On Site, 1 week Satellite, 2 weeks AOCI, 1 week Correspondence	ALMC	1, 4-12, 14-22, 24-27, 30-32, 33, 35-38	
PRIORITY 2				
1. Related college courses				
PRIORITY 3				
NONE				

Figure C-6

MASTER TRAINING PLAN: GS-1105, 7/11 - Purchasing Agent, Intermediate Level
Desirable Education: Associate Degree with business related Major

TRAINING	MODE & DURATION	SOURCE	KSAs TO BE ACQUIRED (SEE APPENDIX A)	EQUIVALENT DOD TRAINING
PRIORITY 1				
1. Defense Small Purchases (Advanced) (ALMC-B4) (JT)	Resident, 1 week On Site, 1 week	ALMC	2-3, 5-7, 13, 16, 18, 20-23, 28-29, 31-32, 34, 37, 38	
PRIORITY 2				
1. Management of Defense Acquisition Contracts (Basic) (3D-4320)	Resident, 4 weeks On Site, 4 weeks Satellite, 4 weeks AOCI, 4 weeks Correspondence	ALMC	1-28, 30-32, 34, 37-38, 40, 45-46, 48-51	1. a. Central/System Level Contracting (G30BR6531007) ATC b. Base Level Contracting (G30BR653100002) ATC c. University Programs (DOD Acquisition Education and Training Catalog) d. DOD equivalency test (Ref.(R) DODI 1430.11-M, DOD Civilian Career Knowledge Test Program, AUG 1978)
2. Leadership and Team Building AMEC 154	Resident, 1 week	AMEC		
PRIORITY 3				
1. Related College Courses to Enhance Professional Skills				

Figure C-6

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MASTER TRAINING PLAN: GS-1106, 3/5 - Procurement Clerical and Assistance Series, Entry Level
Desirable Education: High School

TRAINING	MODE & DURATION	SOURCE	KSAs TO BE ACQUIRED (SEE APPENDIX A)	EQUIVALENT DOD TRAINING
PRIORITY 1				
None Required				
PRIORITY 2				
1. Related College Courses to Enhance Professional Skills				
PRIORITY 3				
None Required				

Figure C-7

MASTER TRAINING PLAN: GS-1106, 6/7 - Procurement Clerical and Assistance Series, Intermediate Level
Desirable Education: Associate Degree with business related Major

TRAINING	MODE & DURATION	SOURCE	KSAs TO BE ACQUIRED (SEE APPENDIX A)	EQUIVALENT DOD TRAINING
PRIORITY 1				
1. Defense Small Purchases (Basic) (ALMC-B3)	Resident, 1 week On Site, 1 week Satellite, 1 week Correspondence	ALMC	1, 4-12, 14-22, 24-27, 30-32, 33, 35-38	
PRIORITY 2				
1. Management of Defense Acquisition Contracts (Basic) (3D-4320)	Resident, 4 weeks On Site, 4 weeks Satellite, 4 weeks AOCI, 4 weeks Correspondence	ALMC	1-28, 30-32, 34, 37-38, 40, 45-46, 48-51	1. a. Central/System Level Contracting (G30BR6531007) ATC b. Base Level Contracting (G30BR653100002) ATC c. University Programs (DOD Acquisition Education and Training Catalog) d. DOD equivalency test (Ref.(R) DODI 1430.11-M, DOD Civilian Career Knowledge Test Program, AUG 1978)
PRIORITY 3				
1. Related College Courses to Enhance Professional Skills				

Figure C-7

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MASTER TRAINING PLAN: GS-1150, 5/8 - Industrial Specialist, Entry Level
Desirable Education: Bachelors Degree with 24 Semester Hours of Business Administration

TRAINING	MODE & DURATION	SOURCE	KSAs TO BE ACQUIRED (SEE APPENDIX A)	EQUIVALENT DOD TRAINING
PRIORITY 1				
1. Production Management I PPM 153 (JT)	Resident, 6 weeks	AFIT	1, 4, 14, 22, 33, 36, 51,	
2. Management of Defense Acquisition Contracts (Basic) (8D-4320) (JT)	Resident, 4 weeks On Site, 4 weeks Satellite, 4 weeks AOCI, 4 weeks Correspondence	ALMC	1-28, 30-32, 34, 37-38, 40, 45-46, 48-51	2. a. Central/System Level Contracting (G30BR6531002) ATC b. Base Level Contracting (G30BR653100002) ATC c. University Programs (DOD Acquisition Education and Training Catalog) d. DOD equivalency test (Ref.(R) DODI 1430.11-M, DOD Civilian Career Knowledge Test Program, AUG 1978)
PRIORITY 2				
1. Industrial Preparedness Management (7D-F20)	Resident, 1 week	AMEC		
PRIORITY 3				
1. Related College Courses to Enhance Professional Skills				

Figure C-8

MASTER TRAINING PLAN: GS-1150, 9/12 - Industrial Specialist, Intermediate Level
Desirable Education: Graduate courses in pursuit of Masters Degree in Business, Contracting or related fields

TRAINING	MODE & DURATION	SOURCE	KSAs TO BE ACQUIRED (SEE APPENDIX A)	EQUIVALENT DOD TRAINING
PRIORITY 1				
1. Production Management II PPM 305 (JT)	Resident, 3 weeks On Site, 3 weeks	AFIT	1, 4, 14, 22, 33, 36, 51	
2. Contract Administration (Advanced) PPM 304 *	Resident, 2 weeks On Site, 2 weeks	AFIT	2-4, 6-9, 12-18, 20, 26, 28-33, 35, 39-40, 46-49, 51	
OR				
Management of Defense Acquisition Contracts (Advanced) (8D-F12) **	Resident, 2 weeks On Site, 2 weeks Satellite,	ALMC	1-10, 12-13, 15, 17-18, 20-27, 31, 33, 35-41, 45-48, 50-51	
3. Defense Manufacturing Management DSMC-13	Resident, 1 week	DSMC	1, 33, 36, 51	
PRIORITY 2				
1. Contractual Aspects of Value Engineering - PPM 306	Resident, 1 week	AFIT		
2. Evaluation of Defense Contractor Work Measurement Systems (7A-F58)	Resident, 2 weeks	AMEC		
3. Leadership and Team Building AMEC 154	Resident, 1 week	AMEC		
PRIORITY 3				
1. Related College Courses				
2. Membership and Participation in Professional and Civic Organizations (e.g., NCMA)				
3. Certificate Program in Contract Management				
4. LOGAMP (Grade 12)				
5. PRIME (Grade 12)				
6. Training With Industry (TWI)				

* - Mandatory course to be taken if job is primarily post-award oriented
** - Mandatory course to be taken if job is primarily pre-award oriented

Figure C-8

Acker Library & Knowledge Repository

MASTER TRAINING PLAN: GS/GM-1150, 13, 14, 15 - Industrial Specialist, Senior Level
Desirable Education: Masters Degree in Business, Contracting or related fields

TRAINING	MODE & DURATION	SOURCE	KSAs TO BE ACQUIRED (SEE APPENDIX A)	EQUIVALENT DOD TRAINING
PRIORITY 1				
1. Defense Acquisition and Contracting Executive Seminar ER (JT) *	On Site, 1 week (at announced locations)	Navy	1-51	
PRIORITY 2				
1. Industrial Preparedness Management Executive Seminar (7D-F21)	Resident, 3 days	AMEC		
2. Defense CADCAM Orientation (7A-F55)	Resident, 3 days	AMEC		
3. Management Skills Improvement Course - AMEC 64	Resident, 1 week	AMEC		
PRIORITY 3				
1. Program Management Course (DSMC-3)	Resident, 6 months	DSMC		
2. Senior Service Colleges	LTT	Various Locations		
3. Training With Industry (TWI)	LTT	Various Locations		
4. LOGAMP	LTT	Various Locations		
5. PRIME	LTT	HQ DA		
6. Personnel Management for Executives (PME)	On Site	Williamsburg, VA		
7. Membership & Participation in Professional and Civic Organizations (e.g., NCMA)				

* - Should be attended every 3-5 years

Figure C-8

MASTER TRAINING PLAN: Supervisory and Management Development

ALL OCCUPATIONAL SERIES

TRAINING	MODE & DURATION	SOURCE	KSAs TO BE ACQUIRED (SEE APPENDIX A)	EQUIVALENT DOD TRAINING
PRIORITY 1				
A. NON-SUPERVISORS				
1. Pre-Supervisor Training (Intern Program)	TBD	Center for Army Leadership		
2. Intern Leadership Development Course (Level 1)	On Site, 1 week			
B. FIRST LEVEL SUPERVISORS				
1. Supervisor Training Course (DA PAM 690-31)				
2. Leadership Education & Development Course (Level II)	On Site, 1 week	Center for Army Leadership (CAL) CGSC		
C. MID LEVEL MANAGER				
1. Organizational Leadership for Executives (Level III)	2 weeks	Center for Army Leadership		Personnel Program Management for Executives, 8 days, Williamsburg, VA
2. Newly Assigned to Key Positions	1 week	AMEC		
D. ALL GM 14/15 POSITIONS				

Figure C-9

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MASTER TRAINING PLAN: Supervisory and Management Development

ALL OCCUPATIONAL SERIES

TRAINING	MODE & DURATION	SOURCE	KSAs TO BE ACQUIRED (SEE APPENDIX A)	EQUIVALENT DOD TRAINING
PRIORITY 2				
A. NON-SUPERVISORS				
1. Leadership and Team Building AMEC 154	Resident, 1 week	AMEC		
B. FIRST LEVEL SUPERVISOR				
1. Personnel Management for Executives (PME)	Resident, 8 days	Williamsburg, VA		
2. Management Development Seminar				
3. Management of Managers				
C. MID-LEVEL MANAGER				
1. Management Development Seminar				
2. Management of Managers				
D. ALL GM 14/15 POSITIONS				
1. Personnel Management of Executives (PME)	Resident, 8 days	Williamsburg, VA		

Figure C-9

MASTER TRAINING PLAN: Supervisory and Management Development

ALL OCCUPATIONAL SERIES

TRAINING	MODE & DURATION	SOURCE	KSAs TO BE ACQUIRED (SEE APPENDIX A)	EQUIVALENT DOD TRAINING
PRIORITY 3				
A. NON-SUPERVISORS				
1. Army Management Staff College	Resident, 15 weeks	Linthicum Heights, MD		
2. LOGAMP	LTT	Various Locations		
B. FIRST LEVEL SUPERVISOR				
1. Army Management Staff College	Resident, 15 weeks	Lithicum, Heights, MD		
2. LOGAMP	LTT	Various Locations		
C. MID-LEVEL MANAGER				
1. Army Management Staff College OR	Resident, 15 weeks	Lithicum, Heights, MD		
Command & General Staff College (or equivalent)	LTT			
2. Program Management Course DSMC-3	Resident, 6 months	DSMC		
3. LOGAMP	LTT	Various Locations		
D. ALL GM 14/15 POSITIONS				
1. Senior Service Colleges	LTT	Various Locations		
2. Program Management Course DSMC-3	Resident, 6 months	DSMC		
3. LOGAMP	LTT	Various Locations		
4. Training With Industry (TWI)	LTT	Various Locations		

Figure G-9

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APPENDIX D

U.S. ARMY LOGISTICS MANAGEMENT COLLEGE (ALMC)

A large portion of the acquisition courses available within the Department of Defense (DOD) and the Department of the Army (DA) are sponsored and presented by the School of Acquisition Management (SACM), one of five schools that make up ALMC. The purpose of this appendix is to provide basic information that may assist individuals or activities in obtaining individual quotas or entire course offerings. More detailed information may be obtained from the ALMC Course Catalog published in September of each year.

I. Programmed Course Offerings.

Acquisition courses are included with all other subject courses of instruction and managed through the Army Training Requirements and Resources System. All DA activities are surveyed each year in November to determine their total training requirements for the following fiscal year (FY). Training requirements are registered in the resident, onsite, and satellite education program (SEP) modes of instruction. Based on total Army Centralized Individual Training Solicitation results, instructor resources and classroom facilities, the ALMC class schedule is published in July for the following FY.

A. Resident Course Offerings.

All ALMC acquisition courses are available in the resident mode. Resident quotas are distributed during the third quarter of the preceding FY. Nominations for resident courses must be on DD Form 1556, Request Authorization, Agreement, Certification of Training and Reimbursement, and arrive at ALMC at least 45 days prior to the opening date of the course. Commands nominating individuals who do not meet all of the course prerequisites must request and justify a waiver. For U.S. Army Materiel Command (AMC) students, ALMC will prepare a fund citation and forward it for inclusion on the individual travel orders. Additional information may be obtained from the Commandant, ALMC, ATTN: AMXMC-A-R, Fort Lee, VA 23801-6041; or by telephone at AUTOVON (AV) 687-2177/4220 or commercial (804) 734-2177/4220.

B. Onsite Course Offerings.

All ALMC acquisition courses are available in the onsite mode. Onsite courses are presented off campus by the ALMC faculty and are normally identical in content to resident course offerings. Time and location of onsite course offerings are published in the ALMC schedule. The host activity is responsible for providing classroom facilities and student services. The host activity may retain all quotas or distribute to other local activities. Nominations are submitted to the host activity on DD Form 1556 and students still must meet all appropriate course prerequisites or obtain the necessary waiver. Additional information concerning a specific onsite course offering may be obtained from the host activity or the course director listed in the ALMC Course Catalog.

C. Satellite Education Program Course Offerings.

Management of Defense Acquisition Contracts Course (MDACC) (Basic) and Defense Small Purchase Course (Basic) are the ALMC acquisition courses available in the SEP mode. Courses are provided using a combination of live television instruction transmitted via satellite to host activity classrooms and live instruction provided over a network of personal computers. Course content parallels the resident and onsite modes, but time schedules may be adjusted to conform to this unique mode. Time and location of SEP course offerings are published in the ALMC schedule. The host activity is responsible for operating classroom equipment, providing an individual to serve as the class facilitator, and providing normal student services. The host activity may retain all quotas or distribute them to other local activities. Nominations are submitted to the host activity on DD Form 1556 and students still must meet the appropriate course prerequisites or obtain the necessary waiver. Additional information concerning a specific SEP course offering may be obtained from the host activity or the course director listed in the ALMC Course Catalog. Inquiries concerning the Satellite Education Network may be made by writing Commandant, ALMC, ATTN: AMXMC-DSEP, Fort Lee, VA 23801-6052; or by calling the Director of Satellite Education at AV 687-2792/3498 or commercial (804) 734-2792/3498.

II. Unprogrammed Course Offerings.

Any course offering not published in the ALMC course schedule is considered an unprogrammed course offering. An unprogrammed onsite course offering may be requested by writing Commandant, ALMC, ATTN: AMXMC-A-R, Fort Lee, VA 23801-6041. The requesting activity may be required to fund ALMC instructor travel and per diem. A SEP course offering is often capable of adding an additional classroom to the network. An unprogrammed SEP course offering may be requested by writing the same address as above.

A. Contractor Course Offerings.

The ALMC acquisition courses available in the contractor mode are MDACC (Basic) and MDACC (Advanced). An instructional services contract has been awarded by ALMC to Management Concepts, Inc., of Vienna, VA. Unprogrammed course offerings may be delivered at a time and place specified by the requesting/funding activity. Delivery orders are placed by the Fort Lee Directorate of Contracting with contract administration and quality assurance provided by ALMC. Course content, examinations, and graduation certificates are identical to resident course offerings. The host activity is responsible for providing classroom facilities and student services. The host activity may retain all quotas or distribute them to other local activities. Nominations are submitted to the host activity on DD Form 1556 and students still must meet all appropriate course prerequisites or obtain the necessary waiver. Additional information concerning the contractor mode may be obtained by writing Commandant, ALMC, ATTN: AMXMC-ACM-PM, Fort Lee, VA 23801-6048; or calling AV 687-1669 or commercial (804) 734-1669.

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B. Correspondence Courses.

The ALMC acquisition courses available by correspondence are DSPC (Basic) and MDACC (Basic). Both of these courses were developed directly from resident course material and use the same examinations. However, there are no prerequisites for either course. Individuals may apply by submitting one copy of DA Form 145, Army Correspondence Course Enrollment Application, to Commandant, ALMC, ATTN: AMXMC-ET-C, Fort Lee, VA 23801-6042.

C. Accredited Off Campus Instruction (AOCI) Course Offerings.

The ALMC acquisition courses available by AOCI are MDACC (Basic), MDACC (Advanced), and DSPC (Basic). AOCI course offerings are conducted off campus by local instructors who have been certified as qualified by ALMC. Instructional materials, examinations, and graduation certificates are provided by ALMC. Within DA, this mode is primarily used OCONUS. Additional information concerning the AOCI Program may be obtained by contacting the appropriate course director listed in the ALMC Course Catalog.

III. Equivalency Examinations.

The central DOD activity for all acquisition equivalency examinations is ALMC. After successfuly completion of the appropriate examination, equivalency may be granted for the following courses:

MDACC (Basic)
MDACC (Advanced)
Contract Administration (to be discontinued)
Advanced Contract Administration
Government Contract Law
Principles of Contract Pricing
Production Management I
Production Management II

Individuals may apply in writing to Commandant, ALMC, ATTN: AMXMC-ET-ADO, Fort Lee, VA 23801-6057. The examinations are administered through the local activity Test Control Officer and unsuccessful results precludes re-examination for a period of six months.

MASTER DEVELOPMENT PLAN (MDP)

CONTRACTOR INDUSTRIAL RELATIONS SPECIALIST, GM-0246
SENIOR LEVEL - GS/GM-14/15

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF DEVELOPMENT
Broaden managerial skills, with emphasis on planning and directing through subordinate managers. Develop understanding of intergovernmental relationships to include OMB, GAO, the Congress. Develop policy making skills to support Industrial Relations objectives of organization. Expand knowledge to arbitrate, mediate and negotiate a variety of complex labor relations issues. Develop knowledge in highly specialized procurement of significant importance to the Air Force and DOD.	Defense Acquisition and Contracting Executive Seminar Table 188: BB3	Program Management Course DSMC-3 (JT) Table 188: BBW Business Managers Advanced Workshop DSMC-18 (JT) Table 188: BB6 Logistics Executive Development 8A-F17 Table 188: ACH Executive Refresher Course in Acquisition Management DSMC-2 (JT) Table 188: BB8 Executive Round Table 7A-F58 (JT) Table 188: ADL	Master's Degree (Preferably in Labor Relations, Labor Law, Industrial Relations or Business)	Regional Administrator Director of AF-wide program Supervisory Experience at regional level Exchange assignments under Intergovernmental Personnel Act Career broadening assignments. Serves as advisor to program officials on Contract Review Boards, preparation of statements of work, applicability of labor laws.	Graduate courses related to executive development, labor law Leadership in professional organizations

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MASTER DEVELOPMENT PLAN (MDP)

CONTRACTOR INDUSTRIAL RELATIONS SPECIALIST, GM-0246
INTERMEDIATE LEVEL, GS/GM-13

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF DEVELOPMENT
Develop knowledge of Air Force contacting acquisition functions. Develop knowledge of Air Force and DOD roles and missions in acquisition process. Develop knowledge and ability to interpret FAR and various acquisition regulations to support mission needs. Develop working knowledge of Labor Laws and enforcement procedures. Develop ability to conduct wage surveys and analyze results.	Management of Defense Acquisition Contracts (Basic) (8D-4320) (JT) Table 188: BDQ Management of Defense Acquisition Contracts (Advanced) (8D-F12) (JT) Table 188: BDN Government Contract Law PPM 302, Table 188: BDP Advanced Contract Administration PPM 304 (JT); Table 188: BDO Basic Management Statistics AMETA-54 Table 188: QMS Introduction to Data Processing (TE-F7) (JT) Table 188: OGN College level courses in Labor Relations and Labor Law.	Contract management of Civil Engineering Programs (AF) AFIT, Table 188: PDU (Base Level) Defense Contracting and Subcontracting with Small and Disadvantaged Business Concerns (SB) (JT) Table 188: QMA Occupational Wage Survey Training - Phase I (BLS) Labor Law Enforcement Training (DOL)	College Degree (Labor Relations, Industrial Relations, Business Management, Economics, Acquisition, Public Adm)	Asst Regional Administrator AF Contractor Industrial Relations	Membership and participation in National Labor/Management Associations Speaking and writing activities Related college courses to enhance professional skills

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MASTER DEVELOPMENT PLAN (MDP)

MISCELLANEOUS ADMINISTRATION AND PROGRAM SERIES, GS-0301
ENTRY LEVEL, GS-5/7

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF DEVELOPMENT
Develop communciation skills and techniques. Develop knowledge of computers and data processing and their management application. Develop knowledge of Air Force Contracting.	Completion of all courses specified in the MDP for GS 1101, 1102, 1103, or 1150 positions, as appropriate. Note: the above training is mandatory when: (1) 50% or more of the position's duties and responsibilities involve Pre or Post-Award Contracting Functions, and (2) the duties meet experience qualifications for entry into a GS 1101, 1102, 1103, or 1150 position.	Appropriate DMET technical courses	Completion of all requirements for a bachelor's degree.	May include any of the following positions structured to support the procurement function: - Computer Systems Analyst - Data Management - Configuration Management	Short courses in administration Continuing education

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MASTER DEVELOPMENT PLAN (MDP)

MISCELLANEOUS ADMINISTRATION AND PROGRAM SERIES, GS-0301 (CONT'D)
INTERMEDIATE LEVEL, GS-9/12

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF DEVELOPMENT
Develop knowledge of basic budgetary principles and effective use of cost control techniques. Periodically update knowledge of computers and data processing equipment. Obtain knowledge and basic understanding of personnel management responsibilities of a supervisor.	Completion of all courses specified in the MDP for GS/GM 1101, 1102, 1103 or 1150 positions, as appropriate. Note: The above training is mandatory when: (1) 50% or more of the position's duties and responsibilities involve Pre or Post Award Contracting and Purchasing Functions, and (2) The duties meet experience qualifications for entry into a GS/GM 1101, 1102, 1103, or 1150 position.	Appropriate DMET technical courses OPM short courses	Completion of all requirements for a Master's Degree in Management, Business, or Public Administration.	May include one of the following positions structured to support the procurement function: - Data Management - Executive Support - Tech Advisor - Contract Review - Management Service Officer - Computer Systems - Career Broadening Assignments (Note: Mobility is important for optimum career progression opportunities	Membership in professional or technical societies.

MASTER DEVELOPMENT PLAN (MDP)

MISCELLANEOUS ADMINISTRATION AND PROGRAM SERIES, GS-0301 (CONT'D)
SENIOR LEVEL, GS/GM-13/15

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF DEVELOPMENT
Expand on ability to determine goals and develop plans for an organization. Continuous expansion of technical knowledge that relates to assigned functional area. Increase understanding of and ability to communicate agency policies and priorities throughout the organization.	Completion of all courses specified in the MDP for GS/GM 1101, 1102, 1103 or 1150 positions, as appropriate. Note: The above training is mandatory when: (1) 50% or more of the position's duties and responsibilities involve Pre or Post Award Contracting and Purchasing Functions, and (2) The duties meet experience qualifications for entry into a GS/GM 1101, 1102, 1103, or 1150 position.	Advanced Management Course (7A-F43) (JT) Table 188: BCA Executive Round Table (7A-F44) (JT) Table 188: ADL	Completion of all requirements for a doctoral degree (Ph.D or equivalent) or 3 full academic years of graduate education in management, business, or public administration.	Acquisitions Officer at ALC. HQ and Specialized AFPRO positions developed to support the overall contracting function. May involve the following: - Data Management - Tech Advisor - Contract Review - Foreign Military Sales - Executive Support - Career Broadening Assignments.	Training conferences and seminars Continuing Education.

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MASTER DEVELOPMENT PLAN (MDP)

QUALITY ASSURANCE ENGINEERS, GS-0801
ENTRY LEVEL, GS-5/7

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF DEVELOPMENT
Develop knowledge of FAR and DOD/AF FAR Supplement. Develop knowledge of Air Force and DOD roles/missions in acquisition process. Develop knowledge and understanding of Basic Quality/Product Assurance Operations and staff activities. Develop knowledge of DOD specifications and standards such as MIL-Q-9858, MIL-I-45208, MIL-STD-1520, MIL-STD-1535, DOD-STD-100 and DOD-D-1000. Develop statistical and probability standards. Develop oral and written communication skills. Maintain professional status in engineering. Develop skills in evaluating adequacy of engineering technical data. Develop applications of contractual QA provisions.	Defense Contract Mgt for Technical Personnel (CNN/MT), Table 188: QNC Introduction to Acquisition Management (SYS 100) Table 188: BCG Quality Assurance Orientation (8D-F21) (JT) Table 188: QAJ Defense Industrial Plant Quality Assurance (8D-F34) (JT) Table 188: QAN Reliability and Maintainability Seminar (8A-F30) Table 188: QMC	Statistical Quality Control (8D-F23) (JT) Table 188: QAP Nondestructive Inspection for Maintenance Managers C30ZR4000-001 ATC-Chanute, (PDS-N4V) Computer Software Application (QMT 185) AFIT (PDS-OHG) Software Reliability, Test and Evaluation (AMETA-120) Table 188: OGV Configuration Management, (AMETA-12) Table 188: QNJ or Introduction to Configuration Management, (SYS 028) Table 188: QMB Contract Management of Engineering Programs (PPM 301), AFIT (PDS-EAN) Procurement Quality Assurance (AMETA-83) Table 188: QMB	Mandatory - A Baccalaureate Degree in Engineering or related field from an accredited college.	Trainee Quality/Reliability Engineer at AFPRO Trainee Production Officer at SPO Trainee Production Officer or Quality/Reliability Engineer at ALC	Engineering and Training Membership and participation in professional societies which relate to responsibilities in future assignments.

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MASTER DEVELOPMENT PLAN (MDP)

QUALITY ASSURANCE ENGINEERS, GS-0801 (CONT'D)
INTERMEDIATE LEVEL, GS-9/12

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF DEVELOPMENT
Expand knowledge of Air Force and DOD roles/missions related to the acquisition processes. Learn to analyze and evaluate requests for proposals and contractor proposals for requirements in technical data. Develop techniques for implementing studies in Quality/Reliability Engineering. Maintain professional status in engineering.	Quality Assurance Management I (ALMC-QC) Table 188: QCV.	Government Contract Law (PPM 302) Table 188: BDP Cost Estimating for Engineers J5ZA55450-000 ALMC PDS-VGL or Introduction to Life Cycle Costing (QMT 353) Table 188: JQS Statistical Analysis and Design Experiments L50ZA0046-007, AMETA, (PDS-E6Q) Planning and Conducting Management Audits and Studies (7A-F53) (JT) Table 188: QNL Corrosion Control (ENG 590) AFIT (PDS-WV3) Learning Curve Analysis (QMT 180) (JT) Table 188: QMN Productibility Engineering and Planning (PEP) AMETA	Mandatory - A Baccalaureate Degree in Engineering or related field from an accredited college. Desirable - A Baccalaureate Degree in the occupational family series of the assigned position.	Journeyman Quality/Reliability Engineer at AFPRO Journeyman Production Officer at SPO Journeyman Production Officer or Quality/Reliability Engineer at ALC	Membership and participation in professional societies which relate to responsibilities and assignments.

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MASTER DEVELOPMENT PLAN

QUALITY ASSURANCE ENGINEERS, GS-801 (CONT'D)
INTERMEDIATE LEVEL, GS-9/12

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF EDUCATION
		Computer Software Support Management (SYS 202) AFIT (PDS-4Z1) or Introduction to Software Engineering (ENE 465) AFIT (PDS-IM2) Defense Computer-Aided Design and Mfg Orientation L50ZA0046-024 AMETA (UW) Integrated Logistics Support Management Techniques in Material Acquisition G50ZA6416-001, ALMC PDS-U7H or Logistics Support Analysis G50ZA6624-009 ALMC PDS-TG4 Principles and Applications of Value Engineering (8D-F27) (JT) Table 188: CAM Techical Data Package Development/Preparation (AMETA-13) Table 188: QMR			

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MASTER DEVELOPMENT PLAN

QUALITY ASSURANCE ENGINEERS, GS-801 (CONT'D)
INTERMEDIATE LEVEL, GS-9/12

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF EDUCATION
		Production Management I (PPMA 153) (JT) Table 188: JQX Introduction to Nondestructive Inspection (01-080-01) Table 188: QNA Reliability, AFIT, (QMT 372) Acquisition Planning and Analysis (SYS 200) Defense Computer Software QA (SYS 245) (JT) Table 188: OGW Statistical Process Control (SPC) AMETA-166			

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MASTER DEVELOPMENT PLAN

QUALITY ASSURANCE ENGINEERS, GS-801 (CONT'D)
SENIOR LEVEL, GS/GM-13/15

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF EDUCATION
Broaden experience in establishing organizational direction, setting objectives, and planning operations. Broaden knowledge of management disciplines with emphasis on systems and procedures organization development. Expand professional technical expertise and abilities to serve as technical authority on assigned areas of responsibilities Develop policy making skills to support acquisition, quality and engineering objectives.	Quality Assurance Management II (ALMC-QD) Table 188: QCW.	Intermediate Program Management (SYS 400) AFIT (PDS-2RZ) Modern Analytical Techniques for DOD Managers (QMT 070) (JT) Table 188: BCK Electrical Engineering for Supervisors (ENG 470) AFIT (PDS-RJ7) or Mechanical Engineering for Supervisors (ENG 460) AFIT (PDS-RJ6) Advanced Management Course (7A-F43) (JT) Table 188: BCA Managerial Assessment Orientation Seminar L50ZA0026-009, AMETA PDS-UCD Emerging Trends in Management Technology (7A-F39) (JT) Table 188: BBY Management of Software Acquisition DSMC-10 (JT) Defense Manufacturing Mgt DSMC-13 (JT) Table 188: BD2	Mandatory - A Baccalaureate Degree in Engineering or related field from an accredited college. Desirable - A Baccalaureate Degree in the occupational family series of the assigned position Beneficial - Advanced degree in either a technical or management field	Supervisory/Management positions in AFPROs, ALCs, Buying Divisions, SPOs, staff positions at headquarters functions	Leadership in professional societies

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MASTER DEVELOPMENT PLAN (MDP)

INDUSTRIAL/MANUFACTURING ENGINEER, GS-0896/0801
ENTRY LEVEL - GS-5/7

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF DEVELOPMENT
Develop knowledge of Air Force acquisition functions. Develop knowledge of Air Force and DOD roles and missions in the Acquisition process. Learn DOD Manufacturing policies. Learn how to use FAR and supplements. Learn to analyze and evaluate contractor manufacturing management systems and their relationship to the required/desired Air Force systems. Learn to evaluate contractor proposals.	Management of Defense Acquisition Contracts (8D-4320) (JT) Table 188: BDQ Production Management I (PPM 153) (JT) Table 188: JQX Evaluation of Defense Contractor Work Measurement Systems (7A-F58) (JT) Table 188: QMC	Defense Computer Aided Manufacturing Techniques (7A-F56) (JT) Table 188: PD1 Defense In-Plant Quality Assurance (8D-F34) (JT) Table 188: QAN Defense Work Methods and Standards (7A-F19) (JT) Table 188: HUM Cost Estimating for Engineers (ALMC-CC) Table 188: HUL Methods-Time Measurement -1A/2A/2B/3/(7A-F24/F48/F49/F50) (JT) Statistical Quality Control (8D-F23) (JT) Table 188: QAP Statistical Process Control (AMETA-166)	Bachelor of Science in Engineering.	Trainee Industrial Engineer or Manufacturing Engineer at an AFPRO. Trainee Manufacturing Officer at a System Program Office Trainee Manufacturing Officer or Industrial Engineer at an Air Logistics Center	OPM Short Courses, University, Professional Society, AFIT Short Courses. Continuing Education

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MASTER DEVELOPMENT PLAN (MDP)

INDUSTRIAL/MANUFACTURING ENGINEER, GS-0896/0801 (CONT'D)
INTERMEDIATE LEVEL, GS-9/12

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF DEVELOPMENT
Expand knowledge of Air Force acquisition and manufacturing objectives. Develop sound engineering judgment to independently adopt and apply standard practices, criteria, regulations, procedures, techniques, and methods to solve assigned problems. Expand knowledge and ability to interpret FAR and the appropriate remedies to enforce contractual provisions in the manufacturing area.	Production Management II (PPM 305) (JT) Table 188: JQY Advanced Contract Administration (PPM 304) (JT) (Table 188: BDO Government Contract Law (PPM 302) (JT) Table (Adv) (8D-F12) (JT) Table 188: BDP Planning for Systems Production (PPM 501) (JT) Table 188: QML Producibility (PPM 502) (JT) Table 188: BCH Defense Manufacturing Management Course (DSMC-13) (JT) Table 188: BD2	Contractual Aspects of Value Engineering (PPM 306) Table 188: BKB Human Behavior in Organizations (7C-FC) (JT) Table 188: CBB Management and Conduct of Production Readiness Reviews (AMETA-86) Table 188: QMM Robotics Workshop (AMETA-98) Table 188: PD4 Technical Management (DSMC-23) (JT) Table 188: BFH Surveillance of Cost/Schedule Control Systems Criteria (SYS 361) (JT) Table 188: HUN or Contractor Performance Measurement (DSMC-6) (JT) Table 188: QMK	Bachelor of Science in Engineering.	Journeyman Industrial Engineer or Manufacturing Engineer at an AFPRO, System Program Office, Buying Division, or Air Logistics Center	Membership and participation in professional organizations Professional Certifications Professional registration

MASTER DEVELOPMENT PLAN (MDP)

INDUSTRIAL/MANUFACTURING ENGINEER, GS-0896/0801 (CONT'D)
ENTRY LEVEL, GS-13/15

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF DEVELOPMENT
Improve managerial skills with an emphasis on working through subordinate managers. Develop technical expertise and abilities to serve as the technical authority on assigned areas of responsibility. Develop policy making skills to support acquisition/manufacturing objectives of the organization.	Defense Acquisition and Contracting Executive Seminar (ER) (JT) Table 188: BB3	Program Management (DSMC-3) (JT) Table 188: BBW Value Engineering Executive Seminar (7A-F45) (JT) Table 188: BB7	Master's Degree in Engineering. Post Master's studies in planning, management, and administration	First line supervisor of an engineering division at an AFPRO/Product Division Industrial Engineer or General Engineer at MAJCOM level	Membership and participation in national professional society or organization Professional registration Broadening technical courses

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MASTER DEVELOPMENT PLAN (MDP)

GENERAL BUSINESS/INDUSTRY, GS-1101
ENTRY LEVEL, GS-5/7

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF EDUCATION
Develop knowledge of Air Force Contracting/Acquisition functions. Develop knowledge of Air Force and DOD roles and missions in acquisition process. Learn how to use FAR and supplements. Develop oral and written communication skills. Develop knowledge of commonly used contracting methods and contract types. Learn to analyze and evaluate contractor proposals utilizing financial data when historical pricing data is available.	Management of Defense Acquisition Contracts (BD-4320) (JT) Table 188: BDQ Principles of Contract Pricing (QMT 170) (JT) Table 188: BDR	Planning for Systems Production (PPM 501) (JT), Table 188: QML Acquisition Logistics (Integrated Logistics Support) (LOG 225) Table 188: JQH Multinational Programs Management (DSMC-8) (JT), Table 188: PCT	College Degree (Business Management, Liberal Arts, Economics, Finance, Acquisition, Public Administration)	Procurement and Production Officer at ALC or Product Division	Membership and participation in professional organizations Related college courses to enhance professional skills

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MASTER DEVELOPMENT PLAN (MDP)

GENERAL BUSINESS/INDUSTRY, GS-1101 (CONT'D)
INTERMEDIATE LEVEL, GS-9/12

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF EDUCATION
Expand knowledge of Air Force Contracting/Acquisition functions. Assist Program Manager by budgeting, acquisiton strategy development, business management and financial resource control. Serve as Program Manager focal point for business strategy matters. Participate in efforts to establish technical and economic basis for program conceptual phase. Perform other business managerial efforts needed through validation, full-scale development and production phases of acquisition life cycle. Interface with Contracting Officer and Defense contractors. Develop knowledge of material acquisition management, life cycle costing and integrated logistics support.	Government Contract Law (PPM 302) (JT) Table 188: BDP Management of Defense Acquisition Contracts (ADV) (8D-F12), Table 188: BDM	Business Management Course (DSMC-21) (JT) Table 188: BD4 System Acquisition Funds Management (DSMC-9) (JT) Table 188: PCW or Financial Management in Weapons Systems Acquisition (Sys 227) Table 188: PCV Contractor Performance Measurement (DSMC-6) (JT) Table 188: QMK Management of Acquisition Logistics (DSMC-24) Table 188: BD6	Graduate level courses	Contract Data Manager in Product Division Foreign Military Sales Specialist in Product Division Procurement and Production Manager in ALC or Product Division Acquisition Manager in Product Divison Business/Financial Manager in Product Divison Deputy Program Manager for non major weapon systems	Related college courses to enhance professional skills Membership and participation in professional and civic organizations. Certification Program in Contract Management.

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MASTER DEVELOPMENT PLAN (MDP)

GENERAL BUSINESS/INDUSTRY, GS-1101 (CONT'D)
SENIOR LEVEL, GS/GM-13/15

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF EDUCATION
Broaden managerial skills with emphasis on planning and directing through subordinates. Support program manager. Manage programs for less than major weapon systems or programs for subsystems of major weapons. Direct efforts to establish technical and economic basis for a program in conceptual phase and all managerial efforts needed during other phases of acquisition life cycle. Manage major programs as defined by DODD 5000.1. Direct and provide executive management for major system acquisition programs through all phases of acquisition life cycle. Analyze planned contract actions to determine accuracy of contractual method, soundness of pricing arrangement, and reasonableness of contract schedule.	Defense Acquisition and Contracting Executive Seminar (ER) (JT) Table 188: BB3	Program Management Course (DSMC-3) Table 188: BBW Logistics Executive Development Course (8A-F17) Table 188: ACH Defense Manufacturing Management (DSMC-13) (JT) Table 188: BD2 Test and Evaluation Management (8D-F30) (AR) Table 188: PCU Project Planning and Control Techniques (5L-FI) (JT) Table 188: QMT Weapon System Logistics Mgmt for Senior System Managers (LOG 320) (AF) Table 188: BCT Executive Refresher Course in Acquisition Mgmt (DSMC-2) (JT) Table 188: BB8	Masters Degree (Preferably in Business or Systems Management)	Deputy Program Manager in Product Division Program Manager for less than major weapon systems or for subsystems in Product Division. Procurement and Production Officer in ALC or Product Divison Procurement and Production Branch or Division Chief at MAJCOM Program Manager for major programs in Product Division	Professional certification Graduate courses related to executive development Leadership in professional organizations

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MASTER DEVELOPMENT PLAN (MDP)

GENERAL BUSINESS/INDUSTRY, GS-1101 (CONT'D)
SENIOR LEVEL, GS/GM-13/15

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF EDUCATION
Remain current on new DOD contracting concepts, source selection techniques and regulatory material.		Reliability and Maintainability Executive Overviews (QMT 020) (JT) Table 188: AKA			
Accomplish continuing review of on-going programs to identify problem areas and initiate corrective actions.					
Perform special studies and assignments in contracting and manufacturing areas.					
Take action to increase and maintain effective competition in acquisition of weapon systems and support equipment.					
Formulate system objectives and policies. Organize and direct the program office. Coordinate system program with using and supporting MAJCOMs.					

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MASTER DEVELOPMENT PLAN (MDP)

CONTRACTING SERIES, GS-1102: JOBS WHICH ARE PRIMARILY PREAWARD ORIENTED.
ENTRY LEVEL, GS-5/7

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF EDUCATION
Develop knowledge of Air Force Contracting/Acquisition functions.	Management of Defense Acquisition Contracts (8D-4320) (JT) Table 188: BDQ	Spare Parts Management (ALMC-LS) Table 188: QME	Baccaluareate Degree with 24 semester hours in Accounting Economics, Business Law, Procurement or Management-related studies	Competition Advocate representative at ALC, installation or Product Division	Related college courses to enhance professional skills
Develop knowledge of Air Force and DOD roles and missions in acquisition	Principles of Contract Pricing QMT 170 (JT) Table 188: BDR	Defense Small Purchase (Basic) ALMC-B3 (JT) Table 188: PDR		Buyer in Contract Placement Office at ALC, Installation or Product Division	Membership and participation in professional and civic organization
Develop knowledge of commonly used contracting methods and contract types.					
Learn how to use FAR and supplements.					
Develop oral and written communication skills.					
Prepare various solicitation documents.					
Learn to analyze and evaluate contractor proposals utilizing mathematical, financial, and statistical data.					
Prepare various contract award documents for Contracting Officer.					

MASTER DEVELOPMENT PLAN (MDP)

CONTRACTING SERIES, GS-1102: PRIMARILY PREAWARD ORIENTED (CONT'D)
ENTRY LEVEL, GS-5/7

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF EDUCATION
Develop working knowledge of Government specifications, technical requirements, statements of work, commercial product nomenclature and be able to interpret such requirements in clear and concise nontechnical language.					

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MASTER DEVELOPMENT PLAN (MDP)

CONTRACTING SERIES, GS-1102: PRIMARILY PREAWARD ORIENTED (CONT'D)
INTERMEDIATE LEVEL, GS-9/12

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF EDUCATION
Expand knowledge of Air Force Contracting/Acquisition functions. Expand knowledge of Air Force and DOD roles and missions as they relate to the Acquisition process. Improve both oral and written communication skills. Develop knowledge and ability to interpret FAR and various acquisition regulations to support mission needs. Develop knowledge of cost/price analysis methods and procedures, to evaluate/use/price/cost analyst reviews/reports to establish negotiation positions. Develop knowledge of appropriate contractual remedies to enforce contract provisions.	Management of Defense Acquisition Contracts (Advanced) (8D-F12) (JT) Table 188: BDN Government Contract Law PPM 302 Table 188: BDP Management of Defense Acquisition Contracts (Executive) (ALMC-B5) (JT) Table 188: BCL (Mandatory for GS-12 Contracting Officers) Defense Contracting for Information Resources ALMC-ZX Table 188: PDY (mandatory if involved in acquisition of information resources)	Defense Fundamentals of Incentive Contracting FI (JT) Table 188: BB4 Contractual Aspects of Value Engineering PPM 306 Table 188: BKB Learning Curve Analysis QMT 180 (JT) Table 188: QMN Defense, Two-Step Formal Advertising and Multi-Year Contracting Seminar (MY) (JT) Table 188: BAR Advanced Contract Administration PPM 304 Table 188: BDO Quantitative Techniques for Cost and Price Analysis QMT 345 (JT) Table 188: BCC Defense Contracting and Subcontracting with Small and Disadvantaged Business Concerns (SB) (JT) Table 188: QMA	Graduate level courses leading to a Master's Degree in Business Administration, Procurement, Management or related fields that will prepare for entry to the senior level	Technical and functional journeyman working in contract placement or staff position at ALC, Installation, MAJCOM or Product Division Contracting Officer warrant Responsible for negotiating agreements on major weapon systems Assigned to Special Project Office as lead contracting representative Should be Cost Analysis Team member Lead negotiator responsible for planning, coordinating and negotiating a variety of procurement actions Competition advocate representative at ALC, installation or Product Division	Related college courses to enhance professional skills. Membership and participation in professional and civic organizations

MASTER DEVELOPMENT PLAN (MPD)

CONTRACTING SERIES, GS-1102: PRIMARILY PREAWARD ORIENTED (CONT'D)
SENIOR LEVEL, GS/GM-13/15

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF EDUCATION
Broaden managerial skills with the emphasis on planning and directing through subordinate managers. Develop understanding of intergovernmental relationships to include OMB, GAO, the Congress. Develop policy-making skills to support contracting/acquisition objectives of organization. Expand knowledge to negotiate a variety of complex cost-type and incentive type contracts. Develop knowledge in highly specialized procurement of significant importance to the Air Force and DOD.	Defense Acquisition and Contracting Executive Seminar* Table 188: BB3 Management of Defense Acquisiton Contracts (Executive) ALMC-B5 (JT) Table 188: BCL Major Systems Acquisition for Contracting Personnel DSMC-31** Table 188: BCN * Should be attended every 3-5 years ** Mandatory if assigned to a Systems Program Office of a Major System Acquisition, designated IAW DOD 5000.1 and DODD 5000.2	Program Management Course DSMC-3 (JT) Table 188: BBW Business Managers Advanced Workshop DSMC-18 (JT) Table 188: BB6 Logistics Executive Development 8A-F17 Table 188: ACH Executive Refresher Course in Acquisition Management DSMC-2 (JT) Table 188: BB8 Executive Round Table 7A-F58 (JT) Table 188: ADL Contract Administration (Executive) PPM 057 (JT) Table 188: BCM Advanced Contract Pricing QMT 540 Table 188: BAD	Master's Degree (see Intermediate Level phase of plan)	Chiefs and Deputy Chiefs of Divisions/ Branches of Contracting Organizations, serve on contracting committees Supervisory experience installation level SAF Branch Chief, special projects involving OMB, GAO and/or Congressional justification Exchange assignments under Intergovernmental Personnel Act Career Broadening assignments Serve as advisor to program officials on program objectives, preparation of statements of work, development of program/ negotiation strategy	Graduate courses related to executive development. Leadership in professional organizations. Professional Certifications

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MASTER DEVELOPMENT PLAN (MDP)

CONTRACTING SERIES, GS-1102: PRIMARILY PREAWARD OREINTED (CONT'D)
SENIOR LEVEL, GS/GM-13/15

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF EDUCATION
				Command-Level representative in the analysis evaluation, initiation, development and recommendation of contracting policies, procedures, guidance, and control for subordinate contracting activities Member of special task groups involved in development of policy, position papers and related contracting functions Alternate contracting representative in specialized contracting area; i.e., development/ implementation of policies concerning international acquisition, foreign sales, production agreements.	

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MASTER DEVELOPMENT PLAN (MDP)

CONTRACTING SERIES, GS-1102: JOBS WHICH ARE PRIMARILY POST-AWARD ORIENTED
ENTRY LEVEL, GS-5/7

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF DEVELOPMENT
Develop knowledge of Air Force Contracting/Acquisition functions. Develop knowledge of Air Force and DOD roles and missions in acquisition process. Learn how to use FAR and supplements. Develop oral and written communication skills. Develop knowledge of commonly used contracting methods and contract types. Learn to analyze and evaluate contractor proposals utilizing financial and statistical cost/price data. Develop knowledge of post-award procedures to administer FFP, time and materials, indefinite delivery or similar contract types. Prepare various contract documents; i.e., modifications, amendments, letters for contracting officers.	Management of Defense Acquisition Contracts (8D-4320) (JT) Table 188: BDQ Principles of Contract Pricing QMT 170 (JT) Table 188: BDR	Spare Parts Management (ALMC-LS) Table 188: QME Managing Quality Assurance For Service Contracts (G3AZR65170-000) Table 188: IPH Defense Termination Settlement TS (JT) NAVMAT Table 188: BAQ	Baccalaureate Degree with 24 hours in Accounting, Economics, Business Law, Procurement or Management related studies	AFPRO or AFCMC detachment.	Related college courses to enhance professional skills. Membership and participation in professional and civic organizations

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MASTER DEVELOPMENT PLAN (MDP)

CONTRACTING SERIES, GS-1102: PRIMARILY POST-AWARD ORIENTED (CONT'D)
INTERMEDIATE LEVEL, GS-9/12

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF DEVELOPMENT
Expand knowledge of Air Force Contracting/Acquisition functions. Develop knowledge/ability to administer a variety of fixed price supply, service, constuction contracts containing GFP, progress payments, quantity options and other such provisions. Knowledge of appropriate remedies to enforce contract provisions. Develop knowledge and ability to interpret FAR and various acquisition regulations to support mission needs. Develop knowledge of cost/price analysis to evaluate use price/cost analyst reviews/reports to establish negotiation position. Maintaining currency in federal and agency policies, regulations, procedures and precedents, cases before Board of Contract Appeals, courts of precedents, cases before Board law relating to termination actions against/for the government.	Advanced Contract Administration PPM 304 Table 188: BDO Government Contract Law PPM 302 Table 188: BDP Defense Contracting for Information Resources ALMC-ZX Table 188: PDY (Mandatory if involved in acquisition of information resources) Contract Administration (Executive) PPM 057 Table 188: BCM (Mandatory for GS-12 Contracting Officers)	Defense Fundamentals of Incentive Contracting FI (JT) Table 188: BB4 Contractual Aspects of Value Engineering PPM 306 Table 188: BKB Contractor Overhead Mentorship QMT 355 (JT) Table 188: BKA Defense In-Plant Quality Assurance (8D-F34) (JT) Table 188: QAN Production Management I (PPM 153) Table 188: JQX Cost/Schedule Control Systems Criteria (SYS 362) Table 188: QMP DOD Cost Accounting Standards Workshop ALMC-CE Table 188: QMF Management of Defense Acquisition Contracts (Advanced) (8D-F12) (JT) Table 188: BDN Quantitative Techniques for Cost and	Graduate level courses leading to a Master's Degree in Business Administration, Procurement, Management or related fields that will prepare for entry to the senior level	Technical and functional journeyman working in contract administration and staff positions at AFPRO or AFCMC detachment. Contracting officer warrant (ACO, PACO, or DACO). Serves as team leader over specialist from pricing, engineering, auditing, and legal offices in termination actions. Serves as Contracting Officer in evaluation, negotiation, resolution of contractual issues pertaining to contract termination and/or claims.	Related college courses to enhance professional skills. Membership and participation in professional and civic organizations

MASTER DEVELOPMENT PLAN (MDP)

CONTRACTING SERIES, GS-1102: PRIMARILY POST-AWARD ORIENTED (CONT'D)
INTERMEDIATE LEVEL, GS-9/12

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF DEVELOPMENT
Develop specialized knowledge of termination responsibilities, concepts, procedures, in the evaluation of contractor claims and appeals procedures. Improve oral and written communication skills.		Price Analysis QMT 345 (JT) Table 188: BCC Industrial Property Administration AFIT PPM 151 (JT) Table 188: PDM			

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MASTER DEVELOPMENT PLAN (MDP)

CONTRACTING SERIES, GS-1102: PRIMARILY POST-AWARD ORIENTED (CONT'D)
SENIOR LEVEL, GS/GM-13/15

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF DEVELOPMENT
Broaden managerial skills, with emphasis on planning and directing through subordinate managers. Develop ability to negotiate forward pricing rate agreements, overhead rates and assure Cost Accounting Standards compliance. Develop policy-making skills to support acquisition objectives of organization. Develop knowledge/ability to administer variety of complex, cost type contracts, and sub-contractual performance. Expand knowledge and abilities in development of Air Force policy, inter-departmental/agency task groups and subcommittees. Expand ability to evaluate audit reports, regulations	Defense Acquisition and Contracting Executive Seminar* Table 188: BB3 Contract Administration (Executive) PPM 057 (JT) Table 188: BCM Major Systems Acquisition for Contracting Personnel DSMC-31** Table 188: BCN * Should be attended every 3-5 years ** Mandatory if assigned to a Systems Program Office of a Major System Acquisition, designated IAW DODD 5000.1 and DODD 5000.2.	Executive Round Table 7A-F58 (JT) Table 188: ADL Planning for Systems Production PPM 501 (JT) Table 188: QML Productibility PPM 502 (JT) Table 188: BCH Technical Administration of Embedded Computer Resource Acquisition SYS 201 (AF) Table 188: OGP Software Acquisition Management for Contract Administration Executives SYS 101 (AF) Table 188: BKC Business Managers Advanced Workshop DSMC-18 (JT) Table 188:BB6 Logistics Executive Development 8A-F17 Table 188: ACH Executive Refresher	Master's Degree	Principal ACO or CACO administering complex contracts at AFPRO or AFCMC detachment Chiefs and Deputy Chiefs of Divisions/Branches of Contracting/Administrative Organizations. Serve on contracting review committee Supervisory experience Special projects involving OMB, GAO and/or Congressional justification Exchange assignments under Inter-governmental Personnel Act Career Broadening assignments	Graduate courses related to executive development Leadership in professional organizations. Professional certifications

MASTER DEVELOPMENT PLAN (MDP)

CONTRACTING SERIES, GS-1102: PRIMARILY POST-AWARD ORIENTED (CONT'D)
SENIOR LEVEL, GS/GM-13/15

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF DEVELOPMENT
and other relevant material; developing and implementing departmental or agency guides or procedures.		Course in Acquisition Management DSMC-2 (JT) Table 188: BB8			
Develop understanding of intergovernmental relationships to include OMB, GAO, the Congress.		Management of Defense Acquisition Contracts (Executive) ALMC-B5 (JT) Table 188: BCL			
Expand knowledge of regulatory, procedural and case law decisions as they relate to claims made against/for the Government in termination settlements.		Advanced Contract Pricing QMT 540 (JT) Table 188: BAD			
Expand knowledge of various practices relating to business concerns, unusual contracts provisions, disposition of property, financial impact and managerial control as they relate to termination actions.					

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MASTER DEVELOPMENT PLAN (MDP)

CONTRACTING SERIES, GS-1102: JOBS WHICH ARE PRIMARILY ORIENTED TO COST AND PRICE ANALYSIS.
ENTRY LEVEL, GS-5/7

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF EDUCATION
Develop knowledge of Air Force Contracting/Acquisition functions.	Management of Defense Acquisition Contracts (8D-4320) (JT) Table 188: BDQ	Learning Curve Analyst QMT 180 (JT) Table 188: QMN	Baccalaureate Degree with 24 semester hours in Accounting Economics, Business Law, Procurement or Management-related studies	Contract Cost/Price Analysts at ALC, Installation, AFPRO, Product Division or Competition Advocate Office	Membership and participation in professional and civic organizations
Develop knowledge of Air Force and DOD roles and missions in acquisition process	Principles of Contract Pricing QMT 170 (JT) Table 188: BDR				Related college courses to enhance professional skills
Learn how to use FAR and supplements.					
Learn DOD Pricing policies and procedures.					
Learn oral and written communication skills.					
Learn to analyze and evaluate contractor proposals utilizing mathematical, financial and statistical data.					
Know the relationship of the Defense Contract Audit Agency and its role in the acquisition process.					
Develop understanding/knowledge of specialized cost/price techniques in the review and evaluation of contractor proposals.					

MASTER DEVELOPMENT PLAN (MDP)

CONTRACTING SERIES, GS-1102: JOBS WHICH ARE PRIMARILY ORIENTED TO COST AND PRICE ANALYSIS.
INTERMEDIATE LEVEL, GS-9/12

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF EDUCATION
Expand knowledge of Air Force Pricing and Acquisition functions..	Government Contract Law PPM 302 Table 188: BDP (JT) Table 188: BDQ	Defense Fundamentals of Incentive Contracting FI (JT) Table 188: BB4	Graduate level courses leading to a Master's Degree in Business Administration, Procurement, Management, or related fields that will prepare for entry to the senior level.	Technical and functional journeyman level.	Related college courses to enhance professional skills
Expand knowledge of Air Force and DOD roles and missions in acquisition process.	Quantitative Techniques for Cost and Price Analysis QMT 345 (JT) Table 188: BCC	Cost/Schedule Control System Criteria Systems 362 (JT) Table 188: QMP		Contract Cost/Price Analyst to ALC, Installation, AFPRO, Product Divisions or Competition Advocate Office	Membership and participation in professional and civic organizations
Improve both oral and written communication skills.		Introduction to Life Cycle Costing QMT 353 Table 188: JQS		Assigned to special project office as member of negotiation team.	
Develop knowledge and ability to interpret FAR and various acquisition regulations to support mission needs.	Defense Contracting for Information Resources ALMC-ZX Table 188: PDY (Mandatory if involved in acquisition of information resources)	Contractor Overhead Monitorship QMT 355 (JT) Table 188: BKA		Should be Cost Analysis team member.	
Develop specialized pricing skills to support more difficult acquisition actions.		DOD Cost Accounting Standards Workshop ALMC-CE Table 188: QMF		Contract monitorship of contract overhead rates and other significant cost drivers.	
Develop negotiation techniques - to assist Contracting Officer in resolution of negotiation actions.		Advanced Contract Administration PPM 304 Table 188: BDO		Field Audit Teams	
		Management of Defense Acquisition Contracts (Advanced) (8D-F12) (JT) Table 188: BDN			
		Cost Estimating for Engineers ALMC-CC Table 188: HUL			

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MASTER DEVELOPMENT PLAN (MDP)

CONTRACTING SERIES, GS-1102: PRIMARILY COST AND PRICE ANALYSIS ORIENTED (CONT'D)
SENIOR LEVEL, GS/GM-13/15

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF EDUCATION
Broaden managerial skills, with emphasis on planning and directing through subordinate managers.	Defense Acquisition and Contracting Executive Seminar* Table 188: BB3	Executive Refresher Course in Acquisition Management DSMC-2 (JT) Table 188: BB8	Master's Degree (see Intermediate Level phase of plan)	Chiefs and Deputy Chiefs of Divisions/ Branches of Contracting Organizations	Graduate courses related to executive development.
Develop understanding of intergovernmental relationships to include OMB, GAO, the Congress.	Advanced Contract Pricing QMT 540 (JT) Table 188: BAD	Executive Round Table 7A-F58 (JT) Table 188: ADL		Supervisory experience at installation level. HQ USAF, Branch Chief.	Leadership in professional organizations
Develop policy-making skills to support contracting/acquisition objectives of organizations.	Major Systems Acquisition for Contracting Personnel DSMC-31** Table 188: BCM	Advanced Cost and Economics Analysis QMT 551 (JT) Table 188: JQI		Special projects involving OMB, GAO and/or Congressional justification	Professional Certifications
Expand knowledge and expertise of Government Laws, policies, contracting techniques and procedures relating to business and industry application and practices.	* Should be attended 3-5 years ** Mandatory if assigned to a Systems Program Office of a Major System Acquisition, designated per DODD 5000.1 and 5000.2	Business Managers Advanced Workshop DSMC -18 (JT) Table 188: BB6		Exchange assignments under Intergovernmental Personnel Act	
		Logistics Executive Development 8A-F17 Table 188: ACH		Career Broadening assignments	
		Contract Administration (Executive) PPM 057 (JT) Table: 188 BCM		May serve on solicitation review boards, Policy Committees as command-level representative in developing and implementing pricing policy or procedures	
		Management of Defense Acquisition Contracts (Executive) ALMC-B5 Table 188: BCL			

MASTER DEVELOPMENT PLAN

INDUSTRIAL PROPERTY/PLANT CLEARANCE SPECIALIST, GS-1103
ENTRY LEVEL - GS-5/7

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF EDUCATION
Develop knowledge of policies, programs, organizations, objectives, and procedures relating to Government Property. Develop knowledge of contractual clauses relating to property management and the legal aspects of risk of loss, damage and destruction of Government property. Develop practical knowledge of machinery, tools, materials, or other specialized equipment or real property. Develop knowledge of Air Force Contracting/Acquisition functions and missions.	Industrial Property Administration (PPM151) (JT) Table 188: PDM Management of Defense Acquisition Contracts (8D-4320) (JT) Table 188: BDQ Defense Contract Property Disposition (ALMC-TY) Table 188: PDO	Industrial Preparedness Management Basic Course (AMETA-34) Table 188: BDJ	Associate's degree or equivalent	Industrial Property Management Specialist at an AFPRO or Contract Management Division	Related college courses to enhance professional skills

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MASTER DEVELOPMENT PLAN

INDUSTRIAL PROPERTY/PLANT CLEARANCE SPECIALIST, GS-1103
INTERMEDIATE LEVEL, GS-9/12

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF EDUCATION
Develop knowledge of and ability to evaluate, monitor, administer, or coordinate industrial property management programs. Develop an ability to interpret and apply contract clauses and government contracting regulations pertaining to government property and contractors.	Advanced Property Administration (PPM300) (JT) Table 188: PDN	Advanced Contract Administration (PPM 304) (JT) Table 188: BDO Defense Integrated Disposal Management System (ALMC-IC) Table 188: PCY Defense Inventory Management (8B-F11) (JT) Table 188: QBU Defense Marking for Shipment and Storage (8B-F32/822-F32 (JT) Table 188: QBV Defense Metals Identification and Recovery (ALMC-8G-F2) Table 188: PCX Defense Property Disposal Operations (ALMC-8G-F1) Table 188: PCZ Government Contract Law (PPM 302) (JT) Table 188: BDP	Baccalaureate degree, preferably with a major in a business-related field	Industrial Property Management Specialist serving in contractor's facility as a Property Administrator or Non-property Administrator Industrial Property Clearance Specialist serving in contractor's plant or worksite	Related college courses to enhance professional skills Membership and participation in professional organization

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MASTER DEVELOPMENT PLAN (MDP)

INDUSTRIAL PROPERTY/PLANT CLEARANCE SPECIALIST, GS-1103 (CONT'D)
SENIOR LEVEL, GS/GM-13/15

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF EDUCATION
Develop knowledge of the values and uses of property items, merchandising techniques and methods. Deepen knowledge of Government policies, regulations, and procedures for the utilization, sale, donation, or other disposition of surplus property.	Defense Acquisition and Contracting Executive Seminar (ER) (JT)* Table 188: BB3 * Should attend every 3-5 years	Advanced Management Course (7A-F43) (JT) Table 188: BCA Business Management Advanced Workshop (DSMC-18) (JT) Table 188: BB6 Logistics Executive Development (8A-F17) Table 188: ACH Executive Refresher Course in Acquisition Management (DSMC-2) (JT) Table 188: BB8 Industrial Preparedness Management Executive Seminar (AMETA 35) Table 188: BB5 Program Management (DSMC-3) (JT) Table 188: BBW	Master's degree preferably with major in a business-related field	Division Chief at Contract Administration Office, Center, or Director at Contract Management Division	Professional certifications Graduate courses related to executive development Leadership in professional organizations

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MASTER DEVELOPMENT PLAN (MDP)

PURCHASING AGENT, GS-1105
ENTRY LEVEL, GS-4/6

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF DEVELOPMENT
Develop oral and written communication skills. Learn how to use FAR and supplements. Develop knowledge of commercial supply sources and common business practices.	Defense Small Purchase (Basic) ALMC-B3 (JT) Table 188: PDR	BCAS Training Courses	College courses in Business-related subjects	Base Contracting Office; Buying Branch at ALC or Product Division; Contracts Branch at AFPRO	Continuing education

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MASTER DEVELOPMENT PLAN (MDP)

PURCHASING AGENT, GS-1105
INTERMEDIATE LEVEL, GS-7/10

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF DEVELOPMENT
Develop knowledge of Air Force Contracting/Acquisition functions.	Defense Small Purchase (Adv) ALMC-B4 (JT) Table 188: BCO	Management of Defense Acquisition Contracts (Basic) (BD-4320) (JT) Table 188: BDQ	Associate degree with business-related major.	Contracts Branch at AFPRO; Buying Branch at ALC or product Division; supervisory position at Base Contracting Office	Continuing Education
Develop working knowledge of Government specifications, technical requirements, statements of work, commercial product nomenclature and to be able to interpret such requirements in clear and concise non-technical language.					
Expand knowledge of commercial supply/service sources and business practices.					

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MASTER DEVELOPMENT PLAN (MDP)

PROCUREMENT CLERICAL AND ASSITANCE SERIES, GS-1106
ENTRY LEVEL, GS-3/5

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF DEVELOPMENT
Develop oral and written communication skills.	None	Better Office Skills and Services (OPM-45AA)	Technical school/ business college courses.	Procurement Clerk at installation, ALC, Product Division or AFPRO.	Continuing education
Develop practical knowledge of contracting operations, procedures and programs.					
Develop ability to apply contract policies, regulations or procedures guidelines.					
Expand proficiency in office machine operations.					

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MASTER DEVELOPMENT PLAN (MDP)

PROCUREMENT CLERICAL AND ASSITANCE SERIES, GS-1106
INTERMEDIATE LEVEL, GS-6/7

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF DEVELOPMENT
Develop knowledge of Air Force Contracting/Acquisition functions. Develop knowledge of an ability to use commercial catalogs and other publications describing available goods and services. Enhance oral and written communication skills.	Defense Small Purchase (Basic) ALMC-B3 (JT) Table 188: PDR.	BCAS Training Course	Associate degree with business related major.	Procurement Assistant at installation, ALC Product Division or AFPRO.	Continuing education

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MASTER DEVELOPMENT PLAN (MDP)

INDUSTRIAL SPECIALIST, GS-1150
ENTRY LEVEL - GS-5/7

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF DEVELOPMENT
Develop a practical knowledge of the nature and operations of an industry and the materials, facilities, and methods employed by the industry in producing commodities. Develop an understanding of contracting procedures as prescribed by statues, FAR, DOD FAR Supplements, and other directives which govern DOD acquisition. Develop knowledge of Air Force and DOD roles/missions in acquisition processes	Production Management I (PPM 153) (JT) Table 188: JQX Management of Defense Acquisition Contracts (Basic) (8D-4320) (JT) Table 188: BDQ	Industrial Preparedness Management Basic Course (AMETA-34) Table 188: BD3 Work Planning and Control Systems (7A-F21) (JT) Table 188: CAP Defense In-Plant Quality Assurance (8D-F34) (JT) Table 188: QAN Production Planning and Control (AMETA-67) Basic Management Statistics (AMETA-54) Table 188: QMS Computer Literacy for Managers (LM) (JT) Table 188: OGR	Baccalaureate degree, preferably with a major in Production Management, Industrial Engineering or related field	Industrial Specialist at AFPRO, ALC, installation or Product Division	Related local college or correspondence courses. Membership in professional organizations

MASTER DEVELOPMENT PLAN

INDUSTRIAL SPECIALIST, GS-1150 (CON'T)
INTERMEDIATE LEVEL, GS-9/12

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIREABLE TRAINING	DESIREABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF EDUCATION
Develop a comprehensive understanding of the organization, operations, production facilities and processes. Develop knowledge of appropriate remedies to enforce contractual provisions in the manufacturing environment. Develop skills to conduct audits and interchange meetings.	Production Management II (PPM 305) (JT) Table 188: JQY Advanced Contract Administration (PPM 304) (JT) Table 188: BDO* or Mgt of Defense Acquisition Contracts (Advanced) (BD-F12) (JT) Table 188: BDN** * If job is primarily post-award oriented ** If job is primarily pre-award oriented	Acquisition Logistics (ILS) (LOG 225) Table 188: JQH Business Management (DSMC-21) Table 188: BD4 Contractor Performance Measurement (DSMC-6) (JT) Table 188: QMK Government Contract LAW (PPM 302) (JT) Table 188: BDP Management and Conduct of Production Readiness Reviews (AMETA-86) Table 188: QMM Technical Management (DSMC-23) (JT) Table 188: BFH Surveillance of Cost/Schedule Control System Criteria (SYS 361) (JT) Table 188: HUN Contractural Aspects Value Engineering (PPM 306) (JT) Table 188: BKB	Graduate study with a major in Industrial Engineering or Production Management	Technical and functional journeyman level at AFPRO, ALC, installation or Product Division	Graduate level courses to enhance professional skills

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MASTER DEVELOPMENT PLAN

INDUSTRIAL SPECIALIST, GS-1150 (CON'T)
SENIOR LEVEL, GS/GM-13/15

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIREABLE TRAINING	DESIREABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF EDUCATION
Develop policy making skills to support acquisition objectives of organization. Broaden managerial skills with emphasis on planning and directing through subordinate managers.	Defense Acquisition and Contracting Executive Seminar (ER) (JT) Table 188: BB3 (Should attend every 3-5 years)	Business Management Advanced Workshop (DSMC-18) Table 188: BB6 Defense CADCAM Orientation (7A-F55) (JT) Table 188: QNN Industrial Preparedness Mgt Executive Seminar (AMETA-35) Table 188: BB5	Master's degree, preferably with a major in Production Management, Industrial Engineering, or a related field	HQ AFLC/AFSC or Product Division at a decision making level Chief or Deputy Chief of Manufacturing Operations Division at AFPRO/Product Division or ALC	Graduate courses related to executive development Professional certifications Leadership in professional organizations Speciality courses in the industrial and production management related field

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MASTER DEVELOPMENT PLAN (MDP)

QUALITY ASSURANCE SPECIALIST, GS-1910
Entry Level, GS-5/7

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF DEVELOPMENT
Develop knowledge, understanding, and appreciation of basic quality and reliability assurance operations and management staff activities. Develop knowledge of DOD specifications and standards such as MIL-Q-9858, MIL-I-45208, MIL-STD-1520 and understand their applications. Develop knowledge of DOD Federal Acquisition Regulation (FAR) and DOD/AF Supplement policies and procedures. Develop oral and written communication skills. Obtain an understanding of the interrelationships between contracting personnel and other functions during the pre-award and post-award phases of the contracting process. Develop an understanding of statistical and probability concepts and their applicability to quality control activities such as statistical process control,	Quality Assurance Orientation Seminar (8D-F21) (JT) Table 188: QAJ Defense In-Plant Quality Assurance (8D-F34) (JT) Table 188: QAN Statistical Quality Control (8D-F23) (JT) Table 188QAP Defense Contracts Management for Technical Personnel (CNN/MT) Table 188: QNC	Effective Oral and Written Communication (BDA-1) Table 188: CAH Procurement Quality Assurance (AMETA-83) Table 188: QMG. Specifications and Standards (AFSC-5) Table 188: QND Introduction to Acquisition Management (SYS-100) Table 188: BCG.	Baccalaureate degree with 24 semester hours in physical sciences, mathematics, chemistry, industrial management or related fields.	Quality Assurance Intern Training Representative at an Air Force Plant Representative Office (AFPRO) or Product Division.	Membership in professional organizations; Maximum use of service schools, local courses, and correspondence courses. Quality Control Certificate Program.

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MASTER DEVELOPMENT PLAN (MDP)

QUALITY ASSURANCE SPECIALIST, GS-1910 (CONT'D)
Entry Level, GS-5/7

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF DEVELOPMENT
statistical sampling inspections, and process capability analysis. Develop knowledge of Air Force and DOD roles/missions in acquisition process					

MASTER DEVELOPMENT PLAN (MDP)

QUALITY ASSURANCE SPECIALIST, GS-1910
INTERMEDIATE LEVEL, GS-9/12

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF DEVELOPMENT
Increase specialized quality and reliability assurance knowledge and skill to provide a foundation for administrative and staff program management. Develop an in-depth application of quality assurance provisions identified under contract. Develop a comprehension of the Management Information System (MIS) both as user and evaluator. Develop an understanding of work behavior patterns and the impact they have on others.	Quality Assurance Management I (ALMC-QC) Table 188: QCV	Defense Acquisition Program (DAP) Table 188: QNB Government Contract Law (PPM 302) Table 188: BDP. Operational Analysis Seminar (AFSC-4) Table 188: QNE Configuration Management (AMETA-12) Table 188: QNJ Human Behavior in Organizations (7C-F7) (JT) Table 188: CBB Production Management I (PPMA 153) (JT) Table 188: JQX Acquisition Planning and Analysis (SYS 200) Introduction to Non-Destructive Inspection (01-080-01) Table 188: QNA Defense Computer Software Quality Assurance (SYS 245) (JTA) Table 188: OGW.	Baccalaureate degree with major in engineering, production management or quality assurance.	Journeyman Quality Assurance Specialist within an AFPRO or Product Division. Section or Area Supervisor at AFPRO Non-supervisory position at MAJCOM Product Division, or career broadening assignment.	Rotational assignment within organizational elements of DOD and non-DOD components. Participation in professional organizations.

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MASTER DEVELOPMENT PLAN (MDP)

QUALITY ASSURANCE SPECIALIST, GS-1910 (CON'T)
INTERMEDIATE LEVEL, GS-9/12

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF DEVELOPMENT
		Reliability and Maintainability Orientation (8AF30) Table 188: QMC Statistical Process Control (SPC) AMETA-166. Table 188: QAY			

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MASTER DEVELOPMENT PLAN (MDP)

QUALITY ASSURANCE SPECIALIST, GS-1910 (CONT'D)
SENIOR LEVEL, GS/GM-13/15

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF DEVELOPMENT
Broaden experience in establishing organization direction, setting objectives, and planning operations. Broaden management disciplines with emphasis on systems and procedures and organization development.	Quality Assurance Management II (ALMC-QD) Table 188: QCW	Computer Literacy for Managers (LM) (JT) Table 188: OGR. Workshop in Quality Assurance Management (7A-F28) (JT) Table 188: BD5 Executive Refresher Course in Acquisition Management (DSMC-2) (JT) Table 188: BB8. Defense Manufacturing Management Course (DSMC-13) (JT) Table 188: BD2 Management of Software Acquisition (DSMC-10) (JT)	Baccalaureate degree preferably in a physical science, with major in engineering, production management or quality assurance	Branch Chief at large AFPRO or Division Chief at small AFPRO. Division Chief at large AFPRO, Contract Management Division, or Product Division. Deputy Director of Quality at Contract Management Division or key managerial position at Air Staff level.	Graduate studies, speaking and writing activities, rotation or exchange assignments, and participation in professional group activities.

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MASTER DEVELOPMENT PLAN (MDP)

SUPERVISORY AND MANAGEMENT DEVELOPMENT - ALL OCCUPATIONAL SERIES
FIRST-LEVEL SUPERVISORY (ALL GRADE LEVELS OF POSITIONS WITH A PDS-C SUPERVISORY LEVEL CODE OF "1")

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF DEVELOPMENT
- Continue to develop technical skills and competencies - Learn basic supervisory skills - Develop effective communications - Develop interpersonal relations skills - Understand Federal management principles - Guide and monitor subordinates - Develop mentorship abilities	- All initial supervisory training courses, as appropriate, i.e., -- USAF Civilian Supervisor's Course (CSC) -- USAF Civilian Personnel Management Course (CPMC) -- USAF Military Personnel Management Course (MPMC) Ref: AFRs 40-418 and 53-7 -- All mandatory functional training IAW DOD Directive (see appropriate MDP)	- Maintain technical competencies IAW appropriate MDP - Squadron Officers School	See appropriate MDP	- Branch Chief, Base Level - Section Chief, Product Division, AFPRO or ALC	Membership in professional associations

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MASTER DEVELOPMENT PLAN (MDP)

MID-LEVEL MANAGER (ALL GS-11, 12 POSITIONS WITH A PDS-C SUPERVISORY LEVEL CODE OF "2" OR "3"; ALL GM-13 POSITIONS)

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF DEVELOPMENT
:- Improve technical skills and competencies :- Improve communication skills :- Develop leadership/motivational skills :- Learn to place, implement and evaluate programs :- Understand role in implementing national policies and programs :- Maintain knowledge of policy, program, and technological changes :- Enhance mentoring skills :- Develop decision-making skills	GS-12 and GM13s: 40 hours of training related to the role and tasks of the mid-level manager to be taken during the first year of the first managerial assignment. Appropriate refresher training to be taken at least once every 3 years, Ref: AFR 40-418	Office of Personnel Management (OPM) Executive Seminar Center (ESC) Programs (Minimum) grade level for all programs GS/GM-13), various offering, e.g., Seminar for New Managers, Table 188: AAA	:- Intermediate Service Schools :-- Air Command and Staff College (ACSC) Table 188: ACS :-- Armed Forces Staff College (AFSC) Table 188: AC2 :-- Naval Command and Staff College Table 188: A5A :-- Army Command and General Staff College :- Education with Industry (EWI) Table 188: QCY for Contracting and Manufacturing Management; QAX for Quality Assurance, or QCX for Systems Acquisition	:- Deputy or Division Chief, Base Level :- Deputy or Chief of Branches at ALCs, Product Division, AFPROs :- Section, Branch Chiefs, MAJCOM Staff or Air Staff	Membership in professional associations

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MASTER DEVELOPMENT PLAN (MDP)

SENIOR-LEVEL MANAGER (ALL GM-14 AND 15 POSITIONS)

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF DEVELOPMENT
:- Improve technical skills and competencies :- Refine communication skills :- Refine leadership motivational skills :- Refine decision-making skills :- Refine mentoring skills :- Maintain awareness of external environment, e.g., new legislation, policies, management practices and technologies. :- Develop systemic view of operational environment :- Develop sensitivity to socio-economic, political and cultural factors :- Develop a strategic view and planning perspective :- Develop skills and abilities in the following six management competency areas used by the Office of Personnel Management (OPM) in assessing executive qualifications for the Senior Executive Service (SES)		:- Office of Personnel Management (OPM) Exeuctive Seminar Center (ESC) Programs various offerings, e.g., Executive Development Seminar, Table 188: AAM :- Harvard University Advanced Managers Program, Table 188: ACF :- Program for Senior Executive Fellows, Harvard University, Table 188: AGA :- Federal Executive Institute (FEI), various offerings e.g., Executive Leadership Management Program, Table 188: ABL	:- Defense Senior Manager's Course/Harvard University, Table 188: AGD :- Education for Public Management/Harvard University, Table 188: AGF :- Education Program for Federal Officials at Mid-Career/Princeton University, Table 188: ACE :- LEGIS Fellows, Table 188: AAN :- Stanford Sloan Fellowship, Table 188: ADH :- Education for Public Management/University of Southern California, (USC) Table 188: AEC :- Congressional Fellowship, Table 188: ADI :- MIT Sloan Fellowship, Table 188: ACD	:- Branch or Deputy Division Chiefs at ALCs, Product Divisions, AFPROs, MAJCOM, HQ or Air Staff :- Divison Chiefs at ALCs, Product Divisions, AFPROs and MAJCOM, HQ Deputy Directors at ALCs, Product Divisons, AFPROs and MAJCOM, HQ	Participation in professional association activities, e.g., seminars, workshops. Presentation of papers or professional subjects to symposia, AF, DOD, and other executive agencies, academic and industry

MASTER DEVELOPMENT PLAN (MDP)

SENIOR-LEVEL MANAGER (ALL GM-14 AND 15 POSITIONS) (CONT'D)

PROFESSIONAL DEVELOPMENT OBJECTIVES	MANDATORY TRAINING	DESIRABLE TRAINING	DESIRABLE EDUCATION	TYPICAL ASSIGNMENTS	CONTINUOUS SELF DEVELOPMENT
-- Integration of internal and external program policy issues			-- Senior Service schools		
-- Organizational representation and liaison			-- National Security Management (NDU) Table 188: BBH		
-- Direction and guidance of programs, projects, or policy development			-- Air War College (AWC) Table 188: ACR		
-- Resource acquisition and administration			-- National War College (NWC) Table 188: ACT		
-- Utilization of human resources			-- Industrial College of the Armed Forces (ICAF) Table 188: ACU		
-- Review and implementation of results			-- Other Senior Service Schools e.g., Army War College Table 188: ACB		

Department of Defense
DIRECTIVE

December 9, 1986
NUMBER 5000.48

USD(A)

SUBJECT: Experience, Education, and Training Requirements for Personnel Assigned to Acquisition: Contracting, Quality Assurance, and Business and Financial Management

References:
(a) DoD Directive 5000.23, "Systems Acquisition Careers," 9 Dec 1986
(b) DoD 1430.10-M-1, "DoD-Wide Civilian Career Program for Contracting and Acquisition Personnel," December 1982, authorized by DoD Instruction 1430.10, June 22, 1981
(c) DoD 1430.10-M-2, "DoD-Wide Civilian Career Program for Quality and Reliability Assurance Personnel," March 1980, authorized by DoD Instruction 1430.10, June 22, 1981
(d) Office of Personnel Management Handbook X-118, "Qualification Standards for Positions Under the General Schedule," January 1975
(e) Federal Personnel Manual, Chapter 335, "Promotion and Internal Placement" and Chapter 338, "Qualification Requirements (General)," May 16, 1979

A. PURPOSE

This Directive establishes experience, education, and training requirements for military and civilian personnel assigned to contracting, quality assurance, and business and financial management positions in the Department of Defense, and supports the concepts established in references (a) through (c).

B. APPLICABILITY AND SCOPE

1. This Directive applies to the Office of the Secretary of Defense (OSD) and its field activities, the Military Departments (including their National Guard and Reserve components), the Organization of the Joint Chiefs of Staff (OJCS), the Unified and Specified Commands, and the Defense Agencies (hereafter referred to collectively as "DoD Components").

2. This Directive applies to positions identified in enclosures 1 through 7. It includes military officer and enlisted positions in the categories specified, as well as civilian positions in their respective occupational codes in the competitive and excepted service schedules A, B, and C, and in the Senior Executive Service.

C. POLICY

It is DoD policy to prepare and assign fully qualified individuals to contracting, quality assurance, and business and financial management positions. Final authority for the establishment of minimum educational standards for civilians is contained in the current edition of reference (d). To the

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extent the mandatory requirements herein differ from the Office of Personnel Management (OPM) Handbook X-118 (reference (d)), they will be treated as quality ranking factors for identifying the best qualified from among the minimally qualified candidates consistent with the current edition of the Federal Personnel Manual, Chapters 338 and 335 (reference (e)).

D. RESPONSIBILITIES

1. The Under Secretary of Defense (Acquisition) (USD(A)) may modify, extend, or eliminate the experience and training requirements contained in enclosures 1 through 7, in consultation with the Assistant Secretary of Defense (Force Management and Personnel).

2. The Assistant Secretary of Defense (Force Management and Personnel) (ASD(FM&P) shall provide staff advice and assistance in realizing the purpose and policy contained in this Directive.

3. The Heads of DoD Components shall integrate the experience and training requirements shown in enclosures 1 through 7 or subsequently established, with the military and civilian personnel assignment policies and procedures of their respective organizations, consistent with DoD 1430.10-M-1, DoD 1430.10-M-2, OPM Handbook X-118, and the Federal Personnel Manual (references (b) through (e)). Each Component shall have a procurement intern program that is centrally managed and controlled to provide a source of highly qualified candidates for high level procurement positions.

E. PROCEDURES

1. The experience, education, and training requirements shown in enclosures 1 through 7 shall be used to screen individuals proposed for assignment to contracting, quality assurance, and business and financial management positions. Individuals being cross trained in a functional area shall be subject to the entry level requirements for that function, regardless of grade or rank. The descriptions of duties in enclosures 1 through 7 are intended to be representative only and not all inclusive or limited in any way.

2. Certain requirements under this policy may be waived by appropriate command authority level as determined by the DoD Component. This includes the ability to waive grade, experience, education, or training requirements if an individual is determined to be otherwise qualified for the job series and level. Current employees, as of the effective date of this Directive, are not required to meet the experience and education prerequisites contained in this Directive. However, they are expected to satisfy all training requirements.

3. In applying the requirements specified in enclosures 1 through 7, education and experience criteria should be treated as those necessary to enter a specific level; training criteria are those required during a specific level, plus 1 year following.

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F. EFFECTIVE DATE AND IMPLEMENTATION

This Directive is effective January 1, 1987. Forward one copy of implementing documents to the Under Secretary of Defense (Acquisition) within 120 days.

William H. Taft, IV
Deputy Secretary of Defense

Enclosures - 7
1. Contracting Series
2. Property Administrator Series
3. Purchasing Series
4. Procurement Clerk and Assistant Series
5. Industrial Specialist Series
6. Quality Assurance Specialist Series
7. Business and Financial Manager Series

CONTRACTING SERIES

General Description: Contracting Series (GS-1102 & comparable military)

Includes: Contract Negotiator, Contract Specialist, Contract Administrator, Procurement Analyst, Price Analyst

1. Level I: GS 5/7, Officer 01/03.

Experience: Fulfilled by a baccalaureate degree.

Education: Baccalaureate degree required with 24 semester hours in accounting, economics, business law, procurement, or management-related studies.

Training: Mandatory

Management of Defense Acquisition Contracts (Basic)

Defense Cost and Price Analysis or Principles of Contract Pricing (latter mandatory for Price & Cost Analysts)

Defense Contract Negotiation Workshop

Defense Contract Administration (Basic)

Defense Small Purchase Course (Correspondence)

Duties:

Contract Specialist/Negotiator - Performs a variety of contractually related procurement functions: negotiates/evaluates fixed-price service, supply, or construction proposals/bids; solicits and prepares for award requirements of various program offices; conducts administrative monitoring of deliverables, obligations, payments, and other contractual requirements; conducts meetings with contractors to clarify issues; monitors contractor performance and progress; negotiates minor changes to contractual terms; negotiates delivery extensions. Assists higher-graded personnel in the preparation of a full range of contract actions and independently negotiates and performs assigned post-award actions on contracts for materials, services, and construction.

Contract Administrator. Administers a variety of fixed price service, supply, or construction contracts with standard--i.e., non-unique--contractual terms and conditions; conducts meetings with contractor to clarify issues; monitors contractor performance and progress; negotiates minor changes to contractual terms; and assists contracting officers, as necessary.

Price Analyst. Performs evaluation of price proposals; reviews audit findings in concert with senior Cost/Price Analyst; prepares recommendations for negotiation objectives; reviews or prepares price negotiation memoranda; and participates in negotiation process, as required.

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2. Level II: GS 9/12, Officer 03/04.

Experience: Contracting experience of increasing complexity and responsibility, including at least 1 year at the GS-7 level or equivalent. Familiarity with the various functional and technical areas related to acquisition and contract management.

Education: Baccalaureate degree with 24 semester hours in accounting, economics, business law, procurement, or management-related studies. It is recommended that individuals begin graduate studies leading to a master's degree in business administration, procurement, management, or related fields that will prepare for entry to the senior level.

Training: Mandatory

(NOTE: The Head of a DoD Contracting Activity should require an employee to complete mandatory contracting courses before appointment as a contracting officer)

Management of Defense Acquisition Contracts (Advanced) or Advanced Contract Administration

Government Contract Law

Quantitative Techniques for Price and Cost Analysis (Price and Cost Analysts)

Contracting Officers' Course (Mandatory within 1 year of receipt of warrant)

Defense Contracting for Information Resources (Mandatory for personnel engaging in ADP acquisition)

Training: Desirable

Major Systems Acquisition for Contracting Personnel (to be developed) (Mandatory for contracting officers within 1 year of assignment to major program).

Duties:

Contract Negotiator

a. Serves as contract negotiator responsible for the solicitation, analysis, evaluation, and negotiation of contractor proposals for research and development activities of one or more organizations. Procurements cover both cost reimbursement and fixed-price contracting in such areas as prototype development of sophisticated research and testing equipment; software systems development; and development of new and unique materials, requiring coordination, analysis, and detailed negotiation. Procurements also may cover options for follow-on work; unsolicited proposals, which may generate problems in proprietary rights, data, or patents; agreements with state or municipal jurisdictions; and extensive subcontracting.

b. Performs procurement planning and, in coordination with the technical program office, develops the contractual strategy to be used in the procurement of a specific contract program. Prepares required justifications and authorizations. Prepares and assembles solicitation documents. Processes and evaluates proposals received. Analyzes proposals, performs cost analyses, makes competitive range determinations, and develops a prenegotiation position. Negotiates individual contracts within the program to obtain services for the Government at a fair and reasonable cost within acceptable time frames. Designs final contract and makes recommendation for awards.

c. Functions as team leader during contract negotiations. Coordinates throughout the procurement process with representatives from the program office, financial office, office of Counsel, and the small and disadvantaged business office representative. Analyzes data provided.

d. Serves as the principal contact for the contract, and represents the agency in conferences with industry and state and local governments pertaining to the procurement.

Contract Specialist

a. May be involved in highly specialized R&D programs, prototype development; limited production, follow-on activities, full-scale production services, or construction acquisitions that require telephonic or face-to-face discussions to resolve technical issues and contractual terms and conditions mutually agreeable to the parties.

b. Plans and coordinates contract strategy with the program office, prepares analysis and functions as team leader during negotiations, prepares contractual documents for award, and acts as principal point of contact on award document. Works independently and in concert with contracting personnel to ensure adequate competition in contracting, reviews and acts as policy review assistant for non-complex contractual actions, and reviews facilities plans and modernization program.

c. Negotiates and administers a variety of fixed-price and cost-reimbursable contracts; monitors contractor financial status to ensure against over obligations; reviews technical specialists' reports regarding contractor performance, progress, and expenditures; acts as buying office focal point for contractor requests for waivers or deviations from contract terms; reviews, investigates, and recommends actions on contractor requests for changes in contractual terms and conditions; monitors requests for Government property and ensures timely receipt; reviews requests for progress payments; and requests audit determination on pricing actions and overhead rates.

d. Has knowledge of policies and procedures regarding inspection and acceptance of contract end items; represents the Government in termination for default or convenience, claims, and settlements; and performs close-outs of contracts, ensuring correct disposition of funds, property, special tooling, and equipment.

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Contract Administrator

a. Administers a wide variety of more complex fixed-price and cost-reimbursable contracts, while typically assigned to a contract administration team. Contracts include fixed-price contracts with redetermination or escalation provisions, incentive contracts and cost-plus fixed-fee contracts and a group of less complex contracts: firm fixed-price, indefinite quantity, bailment and facilities. Reads, analyzes, and interprets a variety of regulations, directives, assigned contracts, purchase orders, change orders, and supplemental agreements in order to ensure that the contracts shall be administered with the intent and provisions thereof. Makes necessary investigations and determinations and recommends and approves progress payments, Government-owned facilities and property, contractors' accounting systems and purchasing procedures. Recommends or approves various policies and procedures based on information, data, and recommendation of various technical personnel. Performs spare parts negotiations, definitizations, and price redeterminations. Negotiates other price adjustments, delivery schedules, and overhead rates up to the point of signature. Coordinates contractors' requests for deviations with technical personnel, and makes substantial recommendations regarding acceptance.

b. Develops recommendations of determinations and findings of fact in cases of disputes between the Government and the contractor. Confers with contractor's executive personnel to reconcile and clarify problems and situations. Responsible for reviewing, recommending, approving, or disapproving such matters as expenditures incurred on cost-reimbursement contracts, estimates of percentage of completion of payment of fixed-fee, special advance payment bank accounts, overtime requests, subcontracts, and purchase orders, etc. Responsible for administering contracts designated by Administrative Contracting Officers (ACOs) in other geographical areas to the extent delegation of authority permits. Assists in preaward surveys. Requests audit determinations on pricing actions and overhead rates; advises Government and contractor personnel on policies and procedures regarding inspection and acceptance of contract end items; and performs close-out of contracts, ensuring correct disposition of funds, property, special tooling, and equipment.

Procurement Analyst

a. Is responsible for reviewing contracts and contracting actions for a variety of supply, service, and construction contracts; for developing guidance; and for providing technical advice, particularly for extensive negotiations involving cost or pricing data and special or unusual contract terms. Requirements typically range from standard to specialized items, e.g., equipment or services needed to support a research and development activity; ADP equipment, software, and related services; and alteration and repair projects.

b. Advises management and contracting officers on matters pertaining to contracting policies and procedures. Provides assistance upon request regarding specific situations or problems. Provides assistance upon receipt of changed procedures imposed by higher headquarters involving regulations, laws, and good business practices.

c. Conducts reviews of contracts or contract changes within predetermined categories based on dollar value, method of acquisition, and other factors.

Reviews procurement packages for appropriate contract type; pricing provisions; selection of sources; acquisition method, determination, and findings; documentation; clarity of contract terms; propriety of cited funds; and need for issuance of unpriced contractual documents.

d. Develops guidance material for activity contracting personnel. Publishes informational material to state, clarify, and explain regulatory and policy changes; and to note recurring errors observed during contract review. Conducts training of contracting personnel to improve acquisition practices.

Price Analyst

Reviews and analyzes cost and price proposals for basic contract procurements, supplemental agreements, and contract changes; develops negotiation objectives in concert with contracting office personnel; performs overhead reviews; assists in negotiation of final cost objectives and price redeterminations; participates in Should Cost Analysis teams; prepares reports of price analysis, including review of audit and technical advice for forwarding to the contracting officer; assists contracting officer in resolving routine cost and accounting issues; performs analysis of profit; ascertains reasonableness of proposed labor and overhead rates, and of labor escalation factors through various indices; reviews price negotiation memoranda for compliance with audit tracking; monitors cost accounting systems; and reviews adequacy of costs for payment procedures.

3. Level III: (Contracting Series) GS 13/15, Officer 04 and above.

Experience: A minimum of 4 years of contracting experience of increasing complexity and responsibility, including at least 1 year at the preceding grade level or equivalent. Demonstrated knowledge of procurement policy and procedures sufficient to conduct negotiations and monitor contractor performance on complex contractual actions or extensive programs. Demonstrated knowledge of negotiation and post-award procedures and negotiation ability to represent the Government in contract terminations, claims, and settlements. Demonstrated skill in major weapon system or other complex negotiations, ability to prepare necessary documentation to support all business clearances and gain award approval, and ability to formulate policies and procedures. Demonstrated knowledge, skill, and ability to analyze financial data and to arrive at fair and reasonable negotiation objectives.

Education: Master's degree is highly desirable in business administration, management, procurement, or a contract-related field.

Training: Mandatory

Major Systems Acquisition for Contracting Personnel (to be developed) (Mandatory for contracting officers within 1 year of assignment to major program).

Defense Acquisition and Contracting Executive Seminar.
One or more of the following, as appropriate to job assignments:

Personnel Management for Executive Conference
or

Advanced Management Course
or

Executive Round Table
or

Management Development Seminar
or

Management of Managers Course
or

Managerial Assessment Orientation Seminar
or

Executive Center Seminars
or

Federal Executive Institute Program

Contract Specialist and Negotiator. Conducts discussions on significant, complex negotiation actions, including termination of contracts; acts as team leader in developing negotiation objectives by coordinating the requirements for awards. Reviews all business clearances and termination and claim settlements for accuracy and submits them for higher-level approval, as required. If Contracting Officer has a warrant, he or she reviews and evaluates all Government objectives developed by subordinates before negotiation authorization is granted. Determines extent of competition through maximum use of existing source identification systems, socioeconomic processes, and any other means to maximize competition. Fully documents and substantiates decisions of negotiation agreements on behalf of the Government, has skill in all negotiation techniques, and is able to meet and deal with private industry representatives and Government managers or experts and present positions regarding proposed negotiation actions.

Contract Administrator

a. Administers contracts, usually extending over several years and covering research, development, testing, production of complex equipment or programs, services, or construction. Ensures that the interests of the Government are protected at all times and that the contractor fulfills the contractual agreements. Makes necessary investigations and determinations and approves or disapproves all matters and requests of the contractors. Performs such functions as: approves contractor's progress; approves payment of contractor costs; acts as team captain and, in this capacity, obtains technical and specialized investigation, advice, and data from such personnel as auditors, price analysts, quality-assurance representatives, industrial specialists, and property administrators; coordinates contractor requests for deviations with buying activities and makes recommendations regarding contract item acceptance; negotiates price adjustments and delivery schedules; prepares determinations and findings of facts in cases of disputes between the contractor and the Government; personally initiates and signs correspondence, vouchers, memoranda, reports, and other documents that are binding on the Government; reconciles previously obligated

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funds and issues Provisioning Order Obligating Documents, etc. Responsible for consenting to the placement of subcontract and performing related administrative duties. Monitors the performance of the prime contractor and sub-contractors when progress payments are being made to the prime contractor. Confers with contractor's executive personnel and officials to adjust or clarify conflicting interpretations of the contract, contractual obligations, disallowable items of cost, etc. Negotiates forward pricing rates. Analyzes progress of work to promote more effective operations. Participates in conferences to develop current and long-range plans.

b. Advises on contract management matters and discusses new developments and possible changes in operations. Deals with a variety of contractor officials and representatives of higher headquarters and other agencies. Attends various conferences to discuss and resolve general problems or to negotiate a particular matter with contractor or procuring activity representatives.

Procurement Analyst. Responsible for the analysis and evaluation of contracting matters, and the initiation, development, and recommendation of contracting policies, procedures, guidance, and control for subordinate contracting activities within a department or agency.

a. Initiates, develops, and recommends contracting policies and procedures for the guidance and control of subordinate contracting activities. Evaluates and recommends disposition on requested waivers to statutory requirements.

b. Reviews, evaluates, and provides specific guidance concerning contracting policies and procedures relative to Government facilities, special tooling, special test equipment, component breakout, warranties, recovery of nonrecurring costs, high-dollar spare parts breakout program, industrial preparedness, production planning, and interdepartmental coordinated procurement.

c. Participates in the development of policy within the agency or department.

d. Provides advice and guidance on contracting matters to project managers and contracting officers at subordinate contracting activities.

e. Performs policy and compliance reviews on complex actions from the strategy phase through award; develops policy, procedures, and implementing guidance, as required; and responds to higher level activities' requests for information on a variety of procurement issues.

Price Analyst

a. Performs as Cost and Price Analyst and acts as supervisor in reviewing, evaluating, and assisting contracting personnel in developing negotiation objectives and strategies for major weapon systems or acquisitions; assists senior-level management in formulating policies, guidance, and procedures to manage the acquisition function in a highly professional manner; reviews and evaluates audits for price and cost evaluations; and consults with contractor managerial personnel and auditors, as necessary, in resolution of pricing discrepancies.

b. Has knowledge of and ability to analyze current price trends and cost factors relative to evaluation of contractor proposals, including ability to perform extensive detailed analysis on individual elements of cost and profit.

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PROPERTY ADMINISTRATOR SERIES

A. General Description: Property Administrator Series (GS-1103 & comparable military)

1. Level I: GS 5/7, Officer 01/04, E 1/7

Experience: Three years of general experience, of which 1 year must be equivalent to the GS-4 level. Knowledge and understanding of administrative, professional, analytical, or other work related to general business and industrial practices are required. Completion of a full 4-year course of study at an accredited college or university satisfies 3 years of general experience. (An academic year is equivalent to 9 months work experience.)

Education: Associate's degree or equivalent is desired.

Training: Mandatory

Industrial Property Administration

Management of Defense Acquisition Contracts (Basic) or Contract Administration

Defense Contract Property Disposition

Introduction to Data Processing or another ADP Appreciation Course of 40 hours duration

Duties: Performs as either an industrial property management specialist or industrial property clearance specialist, assisting the property administrator by conducting system surveys and managing plant clearance cases, including reviews of property for proper marking and utilization; reviews of scrap and salvage records to ensure compliance with approved procedures; and other assigned property system survey responsibilities, such as reviews of materials, special test equipment, and special tooling in accordance with established procedures.

2. Level II: GS-9/12, Officer 03/05, E 6/9

Experience: Minimum 1 year of experience at GS-7 level or equivalent. Demonstrated knowledge of technical aspects of property administration is required.

Education: Associate's degree is desired, preferably with a major in a business-related field.

Training: Mandatory

Advanced Property Administration

Government Contract Law

funds and issues Provisioning Order Obligating Documents, etc. Responsible for consenting to the placement of subcontract and performing related administrative duties. Monitors the performance of the prime contractor and sub-contractors when progress payments are being made to the prime contractor. Confers with contractor's executive personnel and officials to adjust or clarify conflicting interpretations of the contract, contractual obligations, disallowable items of cost, etc. Negotiates forward pricing rates. Analyzes progress of work to promote more effective operations. Participates in conferences to develop current and long-range plans.

b. Advises on contract management matters and discusses new developments and possible changes in operations. Deals with a variety of contractor officials and representatives of higher headquarters and other agencies. Attends various conferences to discuss and resolve general problems or to negotiate a particular matter with contractor or procuring activity representatives.

Procurement Analyst. Responsible for the analysis and evaluation of contracting matters, and the initiation, development, and recommendation of contracting policies, procedures, guidance, and control for subordinate contracting activities within a department or agency.

a. Initiates, develops, and recommends contracting policies and procedures for the guidance and control of subordinate contracting activities. Evaluates and recommends disposition on requested waivers to statutory requirements.

b. Reviews, evaluates, and provides specific guidance concerning contracting policies and procedures relative to Government facilities, special tooling, special test equipment, component breakout, warranties, recovery of nonrecurring costs, high-dollar spare parts breakout program, industrial preparedness, production planning, and interdepartmental coordinated procurement.

c. Participates in the development of policy within the agency or department.

d. Provides advice and guidance on contracting matters to project managers and contracting officers at subordinate contracting activities.

e. Performs policy and compliance reviews on complex actions from the strategy phase through award; develops policy, procedures, and implementing guidance, as required; and responds to higher level activities' requests for information on a variety of procurement issues.

Price Analyst

a. Performs as Cost and Price Analyst and acts as supervisor in reviewing, evaluating, and assisting contracting personnel in developing negotiation objectives and strategies for major weapon systems or acquisitions; assists senior-level management in formulating policies, guidance, and procedures to manage the acquisition function in a highly professional manner; reviews and evaluates audits for price and cost evaluations; and consults with contractor managerial personnel and auditors, as necessary, in resolution of pricing discrepancies.

b. Has knowledge of and ability to analyze current price trends and cost factors relative to evaluation of contractor proposals, including ability to perform extensive detailed analysis on individual elements of cost and profit.

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PROPERTY ADMINISTRATOR SERIES

A. General Description: Property Administrator Series (GS-1103 & comparable military)

1. Level I: GS 5/7, Officer 01/04, E 1/7

Experience: Three years of general experience, of which 1 year must be equivalent to the GS-4 level. Knowledge and understanding of administrative, professional, analytical, or other work related to general business and industrial practices are required. Completion of a full 4-year course of study at an accredited college or university satisfies 3 years of general experience. (An academic year is equivalent to 9 months work experience.)

Education: Associate's degree or equivalent is desired.

Training: Mandatory

Industrial Property Administration

Management of Defense Acquisition Contracts (Basic) or Contract Administration

Defense Contract Property Disposition

Introduction to Data Processing or another ADP Appreciation Course of 40 hours duration

Duties: Performs as either an industrial property management specialist or industrial property clearance specialist, assisting the property administrator by conducting system surveys and managing plant clearance cases, including reviews of property for proper marking and utilization; reviews of scrap and salvage records to ensure compliance with approved procedures; and other assigned property system survey responsibilities, such as reviews of materials, special test equipment, and special tooling in accordance with established procedures.

2. Level II: GS-9/12, Officer 03/05, E 6/9

Experience: Minimum 1 year of experience at GS-7 level or equivalent. Demonstrated knowledge of technical aspects of property administration is required.

Education: Associate's degree is desired, preferably with a major in a business-related field.

Training: Mandatory

Advanced Property Administration

Government Contract Law

Duties: Performs as a property administrator or plant clearance officer. Develops and applies a system-survey program to test contractor procedures; analyzes contracts and establishes management control necessary for ensuring compliance with contract terms; determines reasonableness of consumption and liability for lost, damaged, or destroyed Government property.

3. Level III: GS 13/15, Officer 03/06, E 8/9

Experience: Five years of current, complex, and progressively responsible experience with at least 1 year at the GS-12 level or equivalent.

Education: Baccalaureate Bachelor's degree, preferably with a major in a business-related field is desired.

Training: Mandatory

Defense Acquisition and Contracting Executive Seminar

Personnel Management for Executives Conference
or

Advanced Management Course
or

Executive Round Table
or

Management Development Seminar
or

Management of Managers Course
or

Managerial Assessment Orientation Seminar
or

Executive Center Seminars
or

Federal Executive Institute Program

Duties: Formulates and implements policies and procedures pertaining to the management and control of Government property in the possession of contractors; provides guidance and direction to field activities having one or more property administrators or plant clearance officers; formulates and defends manpower requirements; and evaluates management and audit reports to determine need for corrective actions.

PURCHASING SERIES

A. General Description: Purchasing Series (GS-1105 and comparable military)

1. Level I: GS 4/6, E 1/7

Experience: Fulfilled by an associate's degree or 2 years of responsible office or technical experience.

Education: Associate's degree or 64 semester hours of undergraduate work desired.

Training: Mandatory

Defense Small Purchases

Defense Contract Administration or Management of Defense Acquisition Contracts (Basic)

Duties: Purchases supplies, services, and equipment through informal open market methods and formal bid procedures for non-complex requirements.

2. Level II: GS 7/8, E 6/9

Experience: Five years of current and progressively responsible experience with at least 1 year at the GS-6 level or equivalent.

Education: Associate's degree desired.

Training: Mandatory

Defense Cost and Price Analysis or Principles of Contract Pricing Management of Defense Acquisition Contracts (Advanced) or Advanced Contract Administration.

Duties: Purchases supplies, services and equipment through informal open market methods and formal bid procedures for non-complex requirements.

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PROCUREMENT CLERK/ASSISTANT SERIES

A. General Description: Procurement Clerk/Assistant Series (GS-1106 and comparable military)

1. Level I: (Procurement Clerk), GS 3/5, E 1/7

Experience: One year of clerical or office experience demonstrating accuracy and attention to detail.

Education: High School diploma

Training: None

Duties: Prepares and processes a wide range of procurement documents and other clerical work supporting contracting functions.

2. Level II: (Procurement Assistant), GS 6/7, E 6/9

Experience: Four years of clerical or office experience in a contracting office.

Education: Associate's degree desired

Training: Mandatory

Defense Small Purchases

Defense Contract Administration or Management of Defense Acquisition Contracts (Basic)

Duties: Technical support work related to contract functions, such as assembling product and price data for negotiations or reporting contractor performance.

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INDUSTRIAL SPECIALIST SERIES

A. General Description: Industrial Specialist Series (GS-1150 & comparable military)

1. Level I: GS 5/7, Officer 01/04

Experience: Fulfilled by a baccalaureate degree or 4 years of responsible technical or industrial experience.

Education: Baccalaureate degree is desired, preferably with a major in production management, industrial engineering, or related field.

Training: Mandatory

Management of Defense Acquisition Contracts or

Contract Administration

Production Management I

Duties: Ensures government-furnished property (GFP) and equipment are properly identified and obtained, and oversees repairs and maintenance of GFP in contractor hands. Participates in source selection, manufacturing management and production capability reviews, production readiness review teams, and preaward surveys. Conducts production progress-surveillance, including reviews of contractor schedules to determine contractor progress in meeting hardware delivery schedules. Proposal evaluation responsibilities include evaluating contractor cost proposals for reasonableness of manufacturing hours, tooling requirements, manufacturing approach, lot sizing, and other parameters. Facility management responsibilities include evaluating contractor management of Government industrial facilities and industrial plant equipment.

2. Level II: GS 9/12, Officer 03/05

Experience: For civilians, at least 1 year of experience at the GS-7 level or equivalent. Demonstrated knowledge of the nature and operations of an industry and the materials, facilities, and methods employed by the industry in producing products. This should include experience in determining needed production facilities and layout, including developing or evaluating specifications and plans covering machine layout, operations, sequencing and material of production.

Education: Baccalaureate degree is desired, preferably with a major in production management, industrial engineering, or related field. Graduate study with a major in industrial engineering or production management is preferred.

Training: Mandatory

Production Management II

Management of Defense Acquisition Contracts (Advanced) or Advanced Contract Administration

Government Contract Law

Duties: Typically revolve around planning for and leading efforts of the type of duties listed at Level I.

3. Level III: GS 13/15, Officer 03/06

Experience: At least 4 years of experience of increasing responsibility and complexity, with at least 1 year at the GS-12 level or equivalent. Demonstrated experience in the comprehensive survey and analysis of industrial operations, organization, capacity, and the like is desired.

Education: Master's degree, preferably with a major in production management, industrial engineering, or a related field, is highly desirable. Additional specialty courses and self-development training in the industrial and production management-related field are highly recommended. Attendance at an executive seminar center or professional military center is desired.

Training: Mandatory

Defense Acquisition and Contracting Executive Seminar

Personnel Management for Executive Conference
or

Advanced Management Course
or

Executive Round Table
or

Management Development Seminar
or

Management of Managers Course
or

Managerial Assessment Orientation Seminar
or

Executive Center Seminars
or

Federal Executive Institute Program

Duties: Supervises contract administration or system program office organization, or holds key staff position at headquarters level. Duties include management of the industrial preparedness program, supervision of policy formulation covering the Industrial Modernization Improvement Program, facilities management, manufacturing operations, related industrial policy issues.

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QUALITY ASSURANCE SPECIALIST SERIES

A. General Description: Quality Assurance Specialist Series (GS-1910 & comparable military)

1. Level I: GS 5/8, Officer 01/03

Experience: Fulfilled by a baccalaureate degree or 4 years of responsible technical or industrial experience.

Education: Baccalaureate degree, with 24 semester hours in physical science, mathematics, chemistry, industrial management, or related fields is desired.

Training: Mandatory

Four-week formal training in subjects to be recommended by the Defense Quality Assurance Council.

Defense Contracts Management for Technical Personnel or
Defense In-Plant Quality Assurance or Quality Assurance Management I or
DCAS Contract Quality Assurance or equivalent.

Duties:

Performs quality assurance studies of contractor quality programs to ensure contract compliance, assists in documenting nonconforming supplies and materials, performs inspection duties in preparation for higher level assignments, and prepares technical reports.

2. Level II: GS 9/12, Officer 03/04

Experience: One year of current quality assurance experience at the GS-7 level or equivalent.

Education: Baccalaureate degree with a major in engineering, production management, or quality assurance is desirable.

Training: Mandatory

Quality Assurance Management I or equivalent.

Duties: Develops procedures and techniques that encompass the full sequence of the quality assurance function; monitors contractor quality control operating procedures, methods, and techniques to ensure that the contractor performs quality assurance requirements; issues documents, writes reports, and correlates data covering conformance of supplies and materials; participates in pre-award and post-award surveys; recommends changes to correct quality assurance program deficiencies; has frequent personal contact with Government and contractor personnel; and issues reports identifying product or system deficiencies.

3. Level III: GS 13/15, Officer 04 or above

Experience: Five years of current, complex, progressively responsible experience with at least 1 year at the GS-12 level or equivalent.

Education: Baccalaureate degree, preferably in a physical science, is desired, with a major in engineering, production management, or quality assurance.

Training: Mandatory

Quality Assurance Management II or equivalent

Personnel Management for Executive Conference
or

Advanced Management Course
or

Executive Round Table
or

Management Development Seminar
or

Management of Managers Course
or

Managerial Assessment Orientation Seminar
or

Executive Center Seminars
or

Federal Executive Institute Program

Duties: Typically is manager at contract administration activity. Has overall quality assurance authority via operation of the specific contract provisions, terms and conditions, applicable regulations and directives; has responsibility to ensure implementation of contractor management system evaluation programs or similar quality assurance programs; and manages manpower and allocation within the division. Exercises overall supervisory and managerial control to ensure successful operation of the quality assurance function throughout contractor facilities, and has approval and disapproval authority of contractor quality assurance system.

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BUSINESS AND FINANCIAL MANAGER SERIES

A. General Description: Business and Financial Manager
(Multiple GS series & comparable military.
This job title is not used by all Services.)

1. Level I: GS 5/7, Officer 01/03

Experience: Fulfilled by a baccalaureate degree or 4 years of progressively responsible employment in the area of finance, accounting, or budgeting.

Education: Baccalaureate degree is desired.

Training: Mandatory

Business Management Course

Management of Defense Acquisition Contracts (Basic)

Duties: Assists the Program Manager by performing various managerial tasks associated with such functions as budgeting, acquisition strategy development, business management, and financial resource control. Performs other business managerial efforts needed throughout the production and deployment phases of the acquisition life cycle. Encompasses staff and management functions peculiar to the acquisition of subsystems, systems and support equipment related to acquisition programs.

2. Level II: Staff positions in Business and Financial Management, and position of Business and Financial Manager of a non-major program, (GS 9/12, Officer 03/05).

Experience: A minimum of 1 year experience; 2 years are required for individuals holding the position of Business and Financial Manager (or equivalent) or supervisory positions in this functional area. Experience should be in program control, procurement, technical, budget or cost analysis, including assignments in government administration and plant representative officers, laboratories, logistics support offices, program offices, or functional staff budget or cost analysis offices.

Education: Baccalaureate degree with 24 semester hours in accounting, economics, business law, procurement or management related studies (or at least 12 hours of graduate studies in these fields) is highly desirable.

Training: Mandatory

Contractor Performance Measurement Course

Business Managers Advanced Workshop

Duties: Performs as the Program Manager's focal point for matters relating to overall business strategy for the program office, including direction and participation in efforts to establish the technical, military, and economic basis for a program in the conceptual phase. Includes various managerial and supervisory tasks associated with such functions as budgeting, acquisition strategy

development, business management, and financial resource control. Performs all other business managerial efforts needed throughout the validation, full-scale development, and production and development phases of the acquisition life cycle of the system, including subsystems and system support equipment related to acquisition programs. Interfaces with contractors.

2. Level III: Business and Financial Managers of major programs (GS 13/15, Officer 04 and above).

Experience: A minimum of 4 years experience of increasing complexity and responsibility including at least 1 year at the GS-12 level or equivalent is required. Experience must be in program control, procurement, technical, budget, or cost analysis, and shall be gained through assignments in government administration and plant representative offices, laboratories, logistics support offices, program offices, or functional staff budget, or cost analysis offices.

Education: Master's degree is highly desirable in business administration, management, procurement, or related fields.

Training: Mandatory

Contractor Performance Measurement Course

Business Managers Advanced Workshop

Duties: Performs as the Program Manager's focal point for matters relating to overall business strategy for the program office, including direction and participation in efforts to establish the technical, military, and economic basis for a program in the conceptual phase. Includes various managers and supervisory tasks associated with such functions as budgeting, acquisition strategy development, business management, and financial resource control. Performs all other business managerial efforts needed throughout the validation, full-scale development, and production and deployment phases of the acquisition life cycle. Interfaces with contractors. Encompasses staff and management functions peculiar to the acquisition of subsystems, systems, and support equipment related to acquisition programs.

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