NAVAL POSTGRADUATE SCHOOL Monterey, California



THESIS

ACQUISITION PLANNING FOR THE ARMED FORCES OF THE PHILIPPINES MODERNIZATION PROGRAM

by

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December 2002

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REPORT DOCUMENTATION PAGE

Form Approved OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington DC 20503.

(0,010100)			
1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE December 2002	3. REPORT TYPE AND DATES COVERED Master's Thesis	
4. TITLE AND SUBTITLE: Acquisition Planning for the Armed Modernization Program	d Forces of the Ph	ilippines (AFP)	5. FUNDING NUMBERS
6. AUTHOR (S) Habulan, Jr. Antonio Atanacio A.			
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School Monterey, CA 93943-5000		8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING /MONITORING AGE N/A	NCY NAME(S) AND A	ADDRESS(ES)	10. SPONSORING/MONITORING AGENCY REPORT NUMBER
11. SUPPLEMENTARY NOTES The vipolicy or position of the Department of Defe			he author and do not reflect the official
12a. DISTRIBUTION / AVAILABILITY Approved for public release; distribution			12b. DISTRIBUTION CODE

13. ABSTRACT (maximum 200 words)

The purpose of this thesis is to determine the appropriateness and adequacy of the Armed Forces of the Philippines (AFP) acquisition planning practices to effectively meet the requirements of the AFP Modernization Program (AFPMP). Acquisition planning is key to the success of an acquisition because it provides the overall strategy for accomplishing and managing the acquisition. It is a formal documentation of the approach to satisfy the need of the warfighter, optimize resources, and fulfill the policy requirements of the proposed acquisition. In the AFP, planning for acquisitions depends on the Five-Year Rolling Plan, which contains the list of AFPMP projects and form the basis for the formulation of the Circular of Requirements (CORs). The circular does not elaborate on how to develop the CORs or the Bid Evaluation Plans (BEPs), a document similar to the source selection plan. This thesis evaluated AFP acquisition processes to determine the adequacy of AFP acquisition planning practices to adequately meet the needs of the AFPMP. However, the study found that acquisition plans are not even a requirement for the AFPMP projects and it is not mentioned in any of the other attendant documents to RA 7898 or to the IGRR. The study identified other issues that impact on acquisition planning for the AFPMP, which include lack of an acquisition organization, absence of a skilled acquisition workforce, no acquisition category designations for AFPMP projects, and lack of a single, coherent regulation that pertains to AFP weapon system acquisitions. The study then recommended acquisition plans to be a requirement for all AFPMP acquisitions and the adoption of the acquisition plan format in the FAR as a first step to the conduct of acquisition planning for AFPMP projects. With an acquisition plan that provides a logical and systematic approach for meeting the AFP need, the chance of success of AFPMP acquisition projects can be substantially improved.

14. SUBJECT TERMS Acquisition Process, Acquisition Planning, AFP Modernization Program			15. NUMBER OF PAGES 96
			16. PRICE CODE
17. SECURITY CLASSIFICATION OF	18. SECURITY CLASSIFICATION OF THIS	19. SECURITY CLASSIFICATION OF	20. LIMITATION OF ABSTRACT
REPORT	PAGE	ABSTRACT	T.17
Unclassified	Unclassified	Unclassified	UL

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-89) Prescribed by ANSI Std. 239-18

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ACQUISITION PLANNING FOR THE ARMED FORCES OF THE PHILIPPINES (AFP) MODERNIZATION PROGRAM

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Submitted in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

from the

NAVAL POSTGRADUATE SCHOOL December 2002

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ABSTRACT

The purpose of this thesis is to determine the appropriateness and adequacy of the Armed Forces of the Philippines (AFP) acquisition planning practices to effectively meet the requirements of the AFP Modernization Program (AFPMP). The AFP Modernization Act of 1995 mandated the 15-year modernization of the AFP pursuant to Republic Act (RA) 7898. Consequently, the Department of National Defense (DND) issued Circular No. 1, also known as the Implementing Guidelines, Rules and Regulations (IGRR) to provide the policies and procedures for the AFPMP. Acquisition planning is key to the success of an acquisition because it provides the overall strategy for accomplishing and managing the acquisition. It is a formal documentation of the approach to satisfy the need of the warfighter, optimize resources, and fulfill the policy requirements of the proposed acquisition. In the AFP, planning for acquisitions depends on the Five-Year Rolling Plan, which contains the list of AFPMP projects and form the basis for the formulation of the Circular of Requirements (CORs). The circular does not elaborate on how to develop the CORs or the Bid Evaluation Plans (BEPs), a document similar to the source selection plan. This thesis evaluated AFP acquisition processes to determine the adequacy of AFP acquisition planning practices to adequately meet the needs of the AFPMP. However, the study found that acquisition plans are not even a requirement for the AFPMP projects and it is not mentioned in any of the other attendant documents to RA 7898 or to the IGRR. The study identified other issues that impact on acquisition planning for the AFPMP, which include lack of an acquisition organization, absence of a skilled acquisition workforce, no acquisition category designations for AFPMP projects, and lack of a single, coherent regulation that pertains to AFP weapon system acquisitions. The study then recommended acquisition plans to be a requirement for all AFPMP acquisitions and the adoption of the acquisition plan format in the FAR as a first step to the conduct of acquisition planning for AFPMP projects. With an acquisition plan that provides a logical and systematic approach for meeting the AFP need, the chance of success of AFPMP acquisition projects can be substantially improved.

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ACKNOWLEDGMENTS

Foremost, I would like to give praise and thanks to the Lord our God for his constant provision and abiding presence.

I would like to acknowledge those individuals who provided their support without whose help this thesis would have not been accomplished. First of all I would like to extend my gratitude to my thesis advisors, Professor Jeffrey R. Cuskey and Professor Ron Tudor, for their encouragement, and valuable critical comments and helpful suggestions on the preliminary draft. I am also deeply indebted to Commander Zyril D. Carlos, Director of the Naval Modernization Office, for his suggestions and encouragement, and the officers of the Naval Modernization Office for providing me the AFP and Philippine Government documents pertinent to this research.

I express my appreciation to Captain Emilio C. Marayag, Colonel Ricardo Morales and Colonel Orlando B. Beltran for their patience and enthusiasm in answering my interview questions and providing their valuable expert comments and opinions. I am also grateful to Commander Cesar C. Taccad, Commander Jaime J. Montanez and Commander Vicente C. Cejoco for lending me their theses and/or other materials that I used for this paper.

I wish to thank my relatives and friends in the US who never stopped giving my family and me the support, encouragement, and prayers. You certainly made our stay delightful. To my relatives and friends in the Philippines, I thank you for your love, support and prayers.

Most of all, I wish to express my profound love and gratitude to my wife, Helen, for her unending support and encouragement in my endeavor. I am eternally grateful for your love, devotion, enthusiasm and sacrifice. You are my strength.

Lastly, I wish to thank my children for making my life fun and enjoyable. You and your mother are my sources of inspiration and you spur me to go on.

Mula sa kaibuturan ng aking puso, maraming maraming salamat sa inyong lahat.

I. INTRODUCTION

A. PURPOSE

The purpose of this research paper is to determine the appropriateness and adequacy of the Armed Forces of the Philippines (AFP) acquisition planning to effectively meet the requirements of the AFP Modernization Program (AFPMP). To do this, existing laws, rules, and regulations pertaining to AFP acquisitions will be evaluated in so far as relevant acquisition planning processes are concerned. This study will then assess the acquisition systems and processes of the defense establishments of other countries and provide an analysis of these systems and processes vis-à-vis that of the AFP to determine problem areas in AFP acquisition planning. Finally, this paper intends to provide a guide to acquisition planning that is applicable and suitable for the AFPMP.

B. BENEFIT OF THE STUDY

The paper is intended to benefit the Philippine Defense Establishment, in particular its major services, which undertake the actual acquisition planning and are tasked to implement their respective modernization programs pursuant to DND Circular Number 1. To this end, the paper could serve as a springboard for the formulation of more generic guidelines to acquisition planning that can be utilized by the major services of the AFP in all its acquisitions and not just for the AFPMP.

C. RESEARCH QUESTIONS

To accomplish the purpose of this paper, fundamental research questions were developed. The primary research question is: "Is acquisition planning as currently practiced in the AFP adequate to meet the requirements of the AFP Modernization Program?"

The subsidiary research questions that will provide a guide to answering the primary question are:

- a) What laws, rules and regulations impact acquisition planning for the AFPMP?
- b) How is acquisition planning practiced in the AFP and how is it different from acquisition planning for the AFPMP?

- c) What are the attendant problems that have been associated with current AFP acquisition planning practices and how does it affect the AFPMP?
- d) How is acquisition planning practiced in other countries, particularly in the United States (US)?
- e) What changes, if any, can be made to appropriate laws or regulations to make acquisition planning more responsive to the AFPMP requirements?

D. SCOPE AND LIMITATIONS

The scope of this thesis will be limited to the development of a guide to acquisition planning for the AFPMP. Pertinent Philippine laws, rules and regulations that impact on acquisition planning will be examined to establish its relevance to a more effective acquisition planning for the AFPMP. This paper does not intend to solve other issues or problems affecting the implementation of the AFPMP, nor does it intend to supersede Department of National Defense (DND) Circular Number 1, implementing guidelines, rules, and regulations (IGRR) for the AFPMP. This study merely tries to provide for a more systematic process to acquisition planning than what currently exists in the Philippine Defense establishment, if it is so warranted. This thesis will conclude with a recommendation for adoption of a guide to acquisition planning and provide suggestions for amending rules and regulations as appropriate.

E. LITERATURE REVIEW AND METHODOLOGY

The author followed the traditional way of conducting research by initially extracting data from previous literature on the subject as well as existing laws, rules, and regulations regarding the AFPMP. Online library catalogs and periodical databases were also searched. Relevant books, articles and other documents are cited as a result of these literature searches and are in the List of References. Interviews were also conducted to gather first hand data from key AFP officials and practitioners. These were subsequently analyzed using both empirical and subjective assessment to determine whether there is indeed a need for a more appropriate and structured acquisition planning process for the AFPMP.

F. DEFINITIONS, ABBREVIATIONS, AND ACRONYMS

For purposes of clarity and better understanding, the terms below are offered with their corresponding definitions or meaning: Acquisition Plan – a formal written document reflecting the specific actions necessary to execute the approach established in the approved acquisition strategy and guiding contractual implementation.

Acquisition Planning – the process by which the efforts of all personnel responsible for an acquisition are coordinated and integrated through a comprehensive plan for fulfilling the agency need in a timely manner and at a reasonable cost. It is performed throughout the life cycle and includes developing an overall acquisition strategy for managing the acquisition and a written acquisition plan.

AFP – Armed Forces of the Philippines

AFP Modernization Act – refers to Republic Act No. 7898, which was enacted into law on 23 February 1995.

AFP Modernization Program or AFPMP – refers to the modernization program submitted by the President of the Philippines pursuant to Section 7 of the AFP Modernization Act and approved by Congress through Joint Resolution No. 28, dated 19 December 1996.

AFP Modernization Act Trust Fund or AFPMATF – this refers to the trust fund created under Section 11 of the AFP Modernization Act.

Bids and Awards Committees (BAC) – these are the committees constituted at AFP General Headquarters (GHQ) who shall conduct the public bidding and contract negotiations for equipment acquisition projects under the AFPMP. Their tasks start from the time the Chief of Staff, AFP receives the Secretary of National Defense (SND) directive to undertake bidding and negotiations for a specified project or projects, to the approval of the formal contractual agreement by the SND.

Bid and Evaluation Plan or BEP – this is a comprehensive document that contains the procedure for the acquisition of an equipment or weapons system, indicating the method of procurement, conduct of pre-qualification of bidders and the bidding proper up to and including the award of the contract.

Circular of Requirements or COR – is a document that defines the operational and technical requirement of the equipment or weapons systems to be procured. It is

presented in the context of the national defense strategy, the likely operational scenarios and the doctrines or concept of operations in which such equipment or weapons system shall be employed. It likewise includes, as applicable, force restructuring, human resource development, base development and other support requirements. If the equipment is part of a systems-mix, this concept of systems-mix is also stated. Similarly, in the case of equipment or weapon system, which has to be operationally inter-phased or integrated with civilian agencies of the government, the concept of inter-phase or integration shall be incorporated.

Contract – is the agreement entered into and between two or more parties, signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.

Equipment Acquisition – refers to the first stage in the procedure for the acquisition of equipment and weapons system under the capability, materiel and technology development component of the AFPMP. It includes the formulation of the COR and the preparation of the Bid Evaluation Plan (BEP).

Implementing Guidelines, Rules and Regulations or IGRR – refers to the guidelines, rules and regulations prescribed in DND Circular No. 1.

Procurement Agency – refers to the General Headquarters, Armed Forces of the Philippines for acquisitions under the capability, material and technology development component of the AFPMP. It refers to the Major Services for projects falling under the other components of the program.

Weapon System – refers to a combination of one or more weapons with related equipment, materials, services, personnel, and means of delivery and deployment required for self-sufficiency. It is the end item that will be used to perform the operational requirement of the capabilities to be developed or the sub-component of the end item.

G. ORGANIZATION OF THE STUDY

This Thesis consists of five chapters. Chapter I presents the background, purpose, scope and methodology of the research. Chapter II provides a background about the

Philippines and a discussion of the AFP Modernization Act, the implementing guidelines, rules, and regulations of the Act, and other statutes, rules and regulations that affect the AFP Modernization Program. This chapter also discusses the AFP acquisition process and planning. Chapter III describes the defense acquisition process of three different countries, including that of the US, and acquisition planning as practice in the US defense establishment. Chapter IV is an analysis of all the information gathered from the research as described in the preceding two chapters. Finally, Chapter V presents the conclusions and recommendations of the study regarding the need for a guide to acquisition planning that is responsive to the needs of the AFPMP, answers to the research questions, and suggested areas for research.

II. AFP ACQUISITION PROCESS

A. INTRODUCTION

This chapter presents a short profile of the Philippines that will provide basic information about its history, culture, government, economy, the defense establishment, and its people, among others. It then provides a literature review on the AFP acquisition process for the AFPMP with focus on acquisition planning. It contains a review of the pertinent laws, statutes, rules, and regulations governing the program, and a description of the acquisition process. This chapter endeavors to establish the general context within which the process of acquisition is formulated as well as the basis for acquisition planning.

B. THE PHILIPPINES IN A NUTSHELL

The Philippines is the third largest English-speaking country in the world with an estimated population of 80 million. Although Pilipino is the national language, English is the language normally used for business and legal transactions. The country has over a hundred ethnic groups and a mixture of foreign influences, which have molded a unique Filipino culture. The Philippine archipelago is geographically located between China and Borneo and consists of 7,107 islands including Luzon, Vizayas and Mindanao. The city of Manila is located in the island of Luzon. There are 14 regions, 73 provinces and 60 cities across the country. The climate is tropical with three seasons: wet, cool and dry.

The Philippine education is patterned after the American system, with English as the medium of instruction. There are a number of foreign schools with study programs similar to those in the United States.

The Philippines is the only country in Asia that is predominantly Christian with 80 percent of its population belonging to the Catholic faith. Other religions practiced are Islam and Protestantism.

Since the ratification of the new Philippine Constitution in early 1987, the country has now gone back to a democratic system of government. It has a presidential form of government much like in the United States of America. The economy is basically light

industry and agriculture; the chief products are rice, corn, coconut, pineapple and sugar. The country is rich in copper, cobalt, nickel, silver, iron, and gold. It has well-developed industries in food processing, textiles, clothing, wood, forest products and home appliances, with fast-growing aquaculture, microcircuit, garments and furniture sectors.

C. THE PHILIPPINE DEFENSE ESTABLISHMENT

1. Background

The Philippine Department of National Defense (DND), currently headed by Secretary Angelo T. Reyes, was formerly organized on November 1, 1939, pursuant to Executive Order No. 230, to implement the National Defense Act (Commonwealth Act No. 1) passed by the National Assembly on December 31, 1935 and Commonwealth Act No. 340 creating the Department. It is tasked with the responsibility of providing the necessary protection of the State against external and internal threats; directing, planning and supervising the National Defense Program; maintaining law and order throughout the country; and performing other functions as may be provided for by law. It is charged with the duty of supervising the National Defense Program of the country. It also has responsibility for overseeing field operations to ensure the judicious and effective implementation of National Defense and Security Programs (40).

It exercises executive supervision over the Armed Forces of the Philippines (AFP), the Government Arsenal (GA), the Office of Civil Defense (OCD), the Philippine Veterans Affairs Office (PVAO), and the National Defense College of the Philippines (NDCP).

The Undersecretary for National Defense (USND), the most senior undersecretary in the DND, is responsible for the implementation of the AFP modernization program, to include the related programs of modernization of the Government Arsenal and the SRDP (policy aspects only). He is also responsible for the defense-security policy formulation (macro policies only), in coordination with the Undersecretary for Operations and Undersecretary for Civil Relations (USCR), to include the AFP 5-year development program.

2. The Armed Forces of the Philippines

The Armed Forces of the Philippines (AFP) is responsible for upholding the sovereignty, supporting the Constitution, and defending the territory, of the Republic of the Philippines against all enemies, foreign and domestic; advancing the national aims, interests and policies; planning and organization; maintenance, development and deployment of its regular and citizen reserve forces for national security; likewise providing a stable and secure environment so that the programs of the government to build a stable, just and progressive society for the citizenry can be pursued unhampered.

Its functions are the following:

- a. Secure and protect the country against all kinds of threats-external and internal.
- b. Enhance and pursue activities which shall truly project the image of the AFP as the protector of the people and partner of government in promoting national stability and development.
 - c. Assist in the maintenance of peace and order and law enforcement activities.
- d. Pursue the Self-Reliant Defense Posture (SRDP) Program to reduce dependence on defense materials and technology from external sources and instead develop a viable defense industry in accordance with the country's economic capability.

D. PERTINENT STATUTES, RULES, AND REGULATIONS

The AFP receives the authority to obtain its weapons system and other equipment from Republic Act (RA) Number 7898, otherwise known as the AFP Modernization Act. This statute was signed into law on 23 February 1995. This act empowers the AFP to modernize its forces to a degree where it can fully and effectively perform its constitutional mandate to defend the sovereignty, and to protect and preserve the patrimony, of the Republic of the Philippines.

The Modernization Law also provides for the size and shape of the AFP in terms of personnel strength, equipment and facilities that the Defense establishment will have

to develop within a fifteen-year period. Consequent to the AFP Modernization Act is the approval of the AFP Modernization Program by Congress through Joint Resolution (JR) Number 28 on 19 December 1996. This resolution prescribes the size and shape of the AFP during the various phases of the modernization process. It addresses the capability development of the AFP via the five component programs.

The five programs are force restructuring and organizational development, material and technology development, base development, human resource development and doctrines development. To sustain the Program, an initial outlay of PhP50-B for the first five years was to be appropriated through the AFP Modernization Act Trust Fund (AFPMATF).

RA 7898 essentially requires the Defense establishment to:

- 1. Give preference to Filipino contractors and suppliers or foreign contractors and suppliers willing and able to locate a substantial portion of production in the Philippines;
- 2. Incorporate as much as possible, in each contract/agreement provisions for counter-trade, in-country manufacture, co-production schemes or other innovative agreements; and
- 3. Include in the contract the transfer to the AFP the principal technology involved for the operation and maintenance of the equipment.

The DND Circular No. 29, "Implementing Guidelines to RA 7898," was issued on 19 May 1996. DND Circular No. 1, "Implementing Guidelines, Rules, and Regulations (IGRR) of the AFP Modernization Program" superseded this. The IGRR provides the details on the objectives of the statute as well as defines the policies for the implementation of the five components of the Modernization Program. It also describes the acquisition process under the AFPMP.

Other laws, rules, and regulations that impact on the AFP acquisition process are the following:

1. Executive Order No. 40 (EO 40) issued on 08 October 2001, which consolidates the procurement rules and procedures for all national government agencies,

government-owned or controlled corporations and government financial institutions and requires the use of the government electronic procurement system. It provides for the preparation, maintenance and updating of a Procurement Management Plan and the establishment of a single Bids and Awards Committee (BAC) subject to certain exceptions including complexity and number of items to be procured. Additionally, EO 40 mandates all government agencies to use the Electronic Procurement System (EPS) in accordance with the policies, rules, regulations, and procedures adopted by the Procurement Policy Board (PPB);

- 2. Executive Order No. 262 (EO 262) issued on 05 July 2000, which amended Executive Order No. 302 of 1996 and Executive Order 201 issued in 2000, provides the policies, guidelines, rules, and regulations for the procurement of goods and supplies by the national government. EO 262 also provides guidelines for the creation of the Pre-qualification, Bids and Awards Committee (PBAC) This EO governs procurement contracts under the capability, material and technology development component of the Program;
- 3. Executive Order No. 109 (EO 109) issued in May 2002, which streamlines the rules and procedures in the review and approval of all contracts entered into by departments, bureaus, offices, and agencies of the government. EO 109 authorizes the department secretary full authority to enter into all government contracts and to give final approval on contracts entered into by their respective departments, bureaus, offices and agencies.
- 4. Executive Order No. 120 (EO 120) issued in 1993, and its implementing rules and regulations, which directs the national government, its departments, bureaus, agencies and offices, to include government-owned and controlled corporations, to adopt counter-trade as a trade tool for procurement contracts worth US One Million Dollars or more (\$ 1.0 M). In an interview with the Director of the Naval Modernization Office, Commander Zyril D. Carlos, the Secretary of National Defense (SND) has set the counter-trade requirement to 100%;

- 5. Department of Finance/Department of Budget/Commission on Audit Joint Circular Number 4-98, which provides rules and regulations for the proper handling and administration of the AFP Modernization Trust Fund (AFPMPTF).
- 6. AFP Manual 4-2, AFP Procurement System issued in 1995, which principally provides for logistics support management but also describes the acquisition system, policies, and procedures for use in acquiring major systems consistent with RA 7898 and the IGRR.
- 7. AFP Manual 4-6, AFP Capital Equipment Acquisition Manual, which essentially institutionalizes the capital equipment acquisition process in the AFP. It is intended to serve as a guide for the acquisition of major capital equipment in the AFP and discusses the equipment acquisition organization, the code of ethics, the acquisition process, risk management, and the self-reliant defense program. This manual includes a project management acquisition plan, which will be discussed later in this study.
- 8. AFP Standard Operating Procedures (SOP) Number 6, 7, 8, and 9 all issued on 30 August 2000. SOP No. 6 provides for the creation of the AFP Modernization Board and prescribes its functions, composition, duties and responsibilities of its members, governing policies and procedures of the AFP Modernization Board. SOP No. 7 defines the functions, organization, duties and responsibilities of Pre-qualification, Bids and Awards Committee (BAC) members, policies and procedures regarding the BAC. SOP No. 8 prescribes the functions, composition, duties and responsibilities of members, policies and procedures of the Project Management Teams (PMTs). SOP No. 9 provides for the policies and procedures in the procurement of equipment and weapons systems under the AFP Modernization Program.
- 9. AFP Standard Operating Procedure (SOP) Number 2 issued in February 1997, which provides for the creation of the Bids, Awards, and Negotiations Committee, amended to the Bids and Awards Committee (BANC), and prescribes their composition, functions, and responsibilities. The BANC is assigned one modernization project. It is tasked to evaluate and select a contractor and subsequently prepare the contract for that project. The BAC is dissolved following the approval and signing of the contract.

10. Philippine Navy (PN) Circular Number 2 series of 1993 or the PN Ship Acquisition Project Management System (SAPMS) established the SAPMS for effective implementation of the PN Fleet Modernization Program even before the AFP Modernization Act was passed. It prescribed policies and procedures for the SAPMS and prescribed the functions, composition, duties, and responsibilities of the Ship Acquisition Project Management Team (SAPMT). While still applicable, this circular has been superseded by other issuances from higher headquarters.

The AFP Modernization Act and the other issuances, guidelines, rules, and regulations pertaining thereto are detailed with regards to procurement procedures for the AFPMP is concerned, but are less explicit regarding the conduct of acquisition planning. What is provided is merely a format of the Project Management Acquisition Plan. Neither are these laws and issuances clear on what training or education is required and how to provide the necessary training and education for personnel who are to conduct acquisition planning for the AFP. Of significant importance to the success of equipment and weapon systems acquisitions for the AFPMP is a workforce that has the adequate training and education to do program management and contract negotiations. Acquisition planning is an integral part of this process, however, as mentioned earlier, what the AFP has is just a format and no guide to accomplish it. There is even no mention of who is responsible for the acquisition plan although one can surmise that it is the program manager who is responsible for this.

The AFP has very few officers who have the education and training to do acquisition planning. While the AFP doesn't have a lack for strategic planners, it does lack acquisition planners. The AFP has two qualified contracting officers who just graduated from the Naval Postgraduate School but has no qualified program manager who has the education and experience for acquisition planning.

The basis for acquisition planning for the AFP Modernization Program is the IGRR. The IGRR mandates the Major Services with the responsibility of planning for the procurement of an equipment or weapons system without the attendant responsibility for contract negotiation. However, the IGRR does not provide for more logical and specific guidelines for acquisition planning except to say that the Project Management

Teams (PMTs) of the Major Services are responsible from identification up to implementation of a single procurement project. While it is true that the PMTs are responsible for the formulation of the CORs and the BEPs, it is not quite clear as to how these are going to be conducted and what standards are to be followed in the planning process. The IGRR is much too vague for the Major Services to be able to provide a more realistic and responsive acquisition plan for the AFP Modernization Program.

AFP Manual 4-2 provides that the program manager concerned, among all other duties, shall develop an acquisition strategy tailored to the acquisition program but does not say how the strategy is to be developed. The acquisition strategy provides the basis for the acquisition plan but this is not included in the manual. This manual does provide policies and issues that should be considered in acquisition planning such as promoting and sustaining competition, integrated logistics support, life-cycle costing, source selection and evaluation procedures, contract award and administration, among others. However, these are not presented in a coherent and structured manner like in an acquisition plan.

AFP Manual 4-6 provides for the organization of PMTs in accordance with the IGRR. Its other responsibilities are to monitor and review records of proceedings of all committees/agencies working on the project, implement the contract, monitor progress of the project after turn-over to the user, and turn-over the project to concerned staff when appropriate. The emphasis of this manual is once again on the acquisition process although it provides more policies than AFP Manual 4-2 in that it incorporates project risk management in the aspects of cost, schedule, and performance in relative detail. Once again, there is no mention of how acquisition planning is to be done and who will be responsible for it. This manual only has a project management acquisition plan format as an annex without the necessary guidelines on how to accomplish it, somewhat like an afterthought.

Indeed, there is no acquisition planning guideline for AFPMP acquisitions.

E. THE AFP ACQUISITION PROCESS AND PLANNING

Before the abrogation of the US Bases Treaty in 1991 and the passage of the AFP Modernization Act, acquisition was not a major defense activity. Weapon systems were

normally provided through FMS as part of US military aid to the Philippine Government. Requirements generation had a very simple structure whereby the major service determine its own requirement through its weapons board. The major service weapons board submits the requirement to the major service commander for endorsement to GHQ. It is then reviewed by the AFP Weapons Board and submitted to the Chief of Staff AFP (CSAFP) for his subsequent approval. The approved requirement is then forwarded to the SND for approval prior to its acquisition. The requirements are then provided by the US through its Foreign Military Sales program and the major service usually gets what the US decides best addresses the military need. There were no appropriate laws, rules or regulations that could guide acquisition for major defense projects mainly because the Philippine defense establishment never really embarked on such activities.

There was no acquisition organization for major acquisition programs and this is the situation that exists today even with the passage of the AFP Modernization Act. The acquisition process for the capability development programs of the AFPMP had undergone changes for the better and continues to be streamlined, however. Nevertheless, the numerous statutes and policies of the government have hampered the implementation of the program along with the resource constraints associated with the economic problems besetting the government.

The AFPMP acquisition and contracting is conducted in two stages: the equipment acquisition stage (project definition and validation); and the contract negotiation stage. The following activities are conducted during project identification and validation:

1. Major Services organize their respective Project Management Teams (PMTs), each of which will be responsible for a single procurement project in all its stages from identification up to implementation, except the Contract Negotiation stage. PMTs are normally composed of a minimum of three officers headed by the project manager. They are responsible for the formulation of the Circulars of Requirements (CORs), which define the operational and technical requirements of the Major Services, and the Bid Evaluation Plan (BEP), which includes the procedure for the acquisition of an equipment or weapons system indicating the method of procurement, the conduct of pre-

qualification of bidders, the bidding proper up to and including the award of the contract. The Major Service Modernization Board reviews and validates the CORs and BEP and the Major Service Commander endorses it to the AFP Modernization Board; and,

2. The AFP Modernization Board together with the AFP-DND Technical Working Group reviews and validates the CORs and BEPs (Figure 2-1). The record of its proceedings will then be appended to its recommendations to the Chief of Staff, AFP and shall contain all the deliberations between the AFP Modernization Board, AFP-DND Technical Working Group, and the Major Service Modernization Board concerned. CORs and BEPs shall be submitted to the Secretary of National Defense for approval but will be subjected to a review by the DND Review Board before the SND issues the Procurement Directive (Figure 2-2).

AFP EQUIPMENT ACQUISITION PROCESS

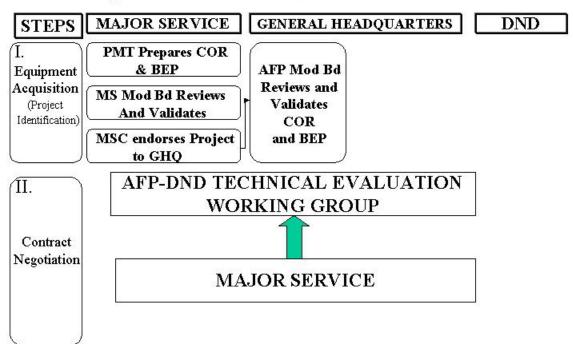
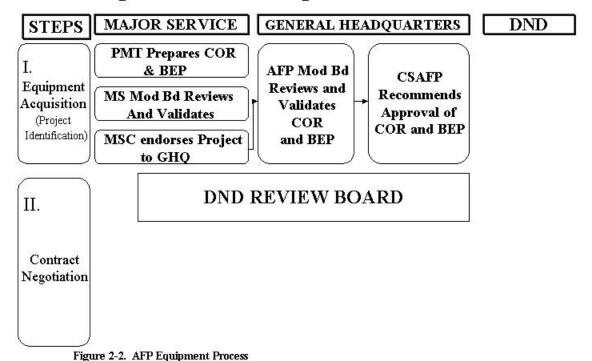


Figure 2-1. AFP Equipment Process

Source: BAC/PMT Preparatory Training Slide on the Equipment acquisition Process and Telephone Interviews with Commander Zyril D. Carlos, Director Naval Modernization Office

Figure 2-1 AFP Equipment Process (After BAC/PMT Preparatory Training Slide)

AFP EQUIPMENT ACQUISITION PROCESS



Source: BAC/PMT Preparatory Training Slide on the Equipment acquisition Process and Telephone Interviews with Commander Zyril D. Carlos, Director Naval Modernization Office

Figure 2-2 AFP Equipment Process (From BAC/PMT Preparatory Training Slide)

The second stage, contract negotiation, starts at the General Headquarters of the AFP and following are the activities:

3. Upon receipt of the Procurement Directive from the SND, the CSAFP then creates the Bids And Awards Committee which is responsible for the determination of eligibility, evaluation of bids, conduct of the bidding, post-qualification of the most advantageous bid (MAB) and recommendation for the award of contract. Figure 2-3 shows the BAC bidding process. At this point, the Joint Counter trade Working Group (JCWG) evaluates the technical and financial aspects of the bid and economic packages associated with it and submits its evaluations to the BAC. The CSAFP then endorses to the SND the MAB for approval;

BAC BIDDING PROCESS

(As Prescribed in EO 262)

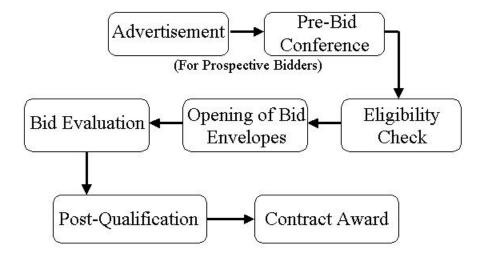


Figure 2-3. BAC Bidding Process for the AFP Modernization Program

Source: BAC/PMT Preparatory Training Slide on the Equipment acquisition Process and Telephone Interviews with Commander Zyril D. Carlos, Director Naval Modernization Office

Figure 2-3 BAC Bidding Process for the AFP Modernization Program (From BAC/PMT Preparatory Training Slide)

- 4. The SND approves the MAB and issues the Notice of Award;
- 5. The BAC then prepares and finalizes the contract with the assistance of the AFPMP Modernization Office and thereafter the CSAFP reviews and endorses the contract to the SND. Upon signing of the contract with the winning bidder, the SND shall issue the Notice to Proceed. Copies of the approved contract are forwarded to Congress in case it is multi-year to enable Congress to appropriate funds for the contract pursuant to Section (b) and (c) of Republic Act 7898. If it is a negotiated contract that exceeds 300 million pesos, the National Economic and Development Authority Reviews and approves the contract prior to its implementation (Figure 2-4);

Source: BAC/PMT Preparatory Training Slide on the Equipment acquisition Process and Telephone Interviews with Commander Zyril D. Carlos, Director Naval Modernization Office

AFP EQUIPMENT ACQUISTION PROCESS

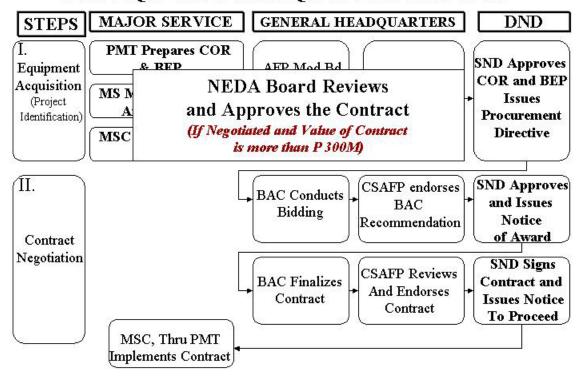


Figure 2-4 AFP Equipment Process (From BAC/PMT Preparatory Training Slide)

6. The PMT then takes over to implement the contract.

Acquisition planning for the AFPMP is built-in in the acquisition and contract process, but as had been mentioned earlier, there are neither structures nor standards set for the Major Services as to how to accomplish an acquisition plan. There are neither regulations nor guidelines for acquisition planning and the Major Services are left to their own ideas about how to go about making planning an acquisition. What the Philippine defense establishment has are elements of an acquisition plan but not a comprehensive acquisition plan that incorporates all the elements thereto as done in the US defense establishment.

In the thesis of Commander Caesar C. Taccad (27: p. 45), his interview with Captain Emilio C. Marayag revealed that the AFP has not experienced these kinds of

acquisitions where it is spending Philippine funds and not money coming from foreign assistance. Before, AFP acquisitions mostly came from Foreign Military Sales (FMS) funds from the US. This inexperience in major acquisitions such as those for the AFPMP underscores the importance of having an acquisition plan to establish a logical and systematic approach for meeting a government need. Commander Taccad further found that there is no single regulation that provides a complete and definitive guidance for the major system acquisitions required in the AFPMP. It is still the case at this time although improvements have been made, like the streamlining of the equipment acquisition process that have reduced the time it takes to conduct an acquisition to about 44 weeks.

In Commander Jaime J. Montanez' thesis, he established the need for qualified contracting officers in the AFP for its modernization program (28: pp. 57-60). In the Philippine setting, however, these have long been the purview of private entities while the AFP does not to have a structure that provides for contracting officers nor for the practice of negotiations. This leaves the AFP officials who are to conduct contract administration and negotiations at a very big disadvantage and this could translate to higher contract costs than desired. Given the scarce resources that the AFP has for its program, cost is and should be a prime consideration. Thus, he recommends the establishment of contracting officer positions and formalized education and training programs within the AFP to address the skill requirements in contracting. Contracting and negotiations are integral to acquisition planning but the absence of contracting officer positions in the AFPMP deprives the Program of needed expertise in the conduct of acquisition planning.

F. CHAPTER SUMMARY

This chapter presented a background about the Philippines, its history, political system, people, economy, and religion among others. More importantly, the literature review revealed that while the equipment acquisition process itself is clear, there is no clear structure for planning the acquisition. In the pertinent statutes, rules, and regulations cited in this chapter, acquisition planning was never given the emphasis it deserves. The only regulation that even mentions an acquisition plan is the AFP Manual 4-6 but seemingly as an afterthought because there was no mention in the text of the manual except as a format in its attachment.

Given the complexity of acquisition and the fact that the AFP has very little experience in actual acquisitions of this magnitude, acquisition planning is crucial to success. As mentioned earlier, the AFP had for so long depended on FMS sales for its acquisitions and this is the first opportunity in a very long time to do acquisitions on its own using Philippine funds. With very scarce resources, careful and meticulous planning is a must.

The next chapter will present the results of the literature review of the acquisition process in the US and other countries, notably United Kingdom and Germany, and acquisition planning as practiced in the US DoD.

III. ACQUISITION SYSTEM IN THE US DOD AND OTHER COUNTRIES

A. INTRODUCTION

This chapter presents the results of the literature review on the acquisition system and processes in the US' and two other countries' defense establishment, namely Germany and United Kingdom. It describes each country's acquisition system, organization, and process and takes a glimpse of the defense/military acquisition characteristics of the three countries that can provide an insight into the practices and approaches of each nation. It is not intended to be an analysis of which is the best system. It then describes acquisition planning as practiced in the US defense establishment. The objective of this chapter is to provide a broader understanding of the acquisition process and the importance of having an acquisition plan in the success of a program.

B. THE GERMAN ACQUISITION SYSTEM

1. The Federal Ministry of Defense (26: p. 2-10 to 2-12)

The Minister of Defense, who heads the Federal Ministry of Defense, is responsible for commanding the German Armed Forces in times of peace. Two Parliamentary State Secretaries from the Bundestag, the lower house of the federal parliament, support him in running the Ministry. The two Parliamentary State Secretaries are concerned with the relations and communications with the Parliament. Two State Secretaries from the civil service also support him. Their primary roles are to provide authority, expertise, leadership, and continuity in running the ministry.

The Federal Ministry of Defense (FMOD) consists of two elements-the civilian Federal Administrative portion, and the military or armed forces (Bundeswehr). The civilian Federal Administrative division is the responsibility of the State Secretary for Administration and includes personnel, budgets, administrative and legal affairs, infrastructure, social services, including oversight of the Federal Academy of Defense Administration and Technology. The Federal Academy provides armament acquisition and management education to the workforce, especially the civilian part of the FMOD.

The State Secretary for Armament and Logistics has responsibility for security and alliance policy, arms control, intelligence and other areas. He is also responsible for armament matters and the Director General of Armaments reports to him.

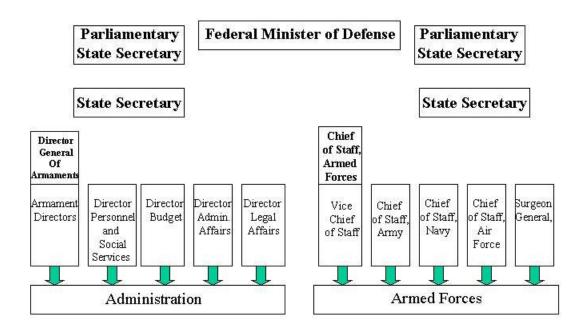


Figure 3-1, Organization of the German Federal Ministry of Defense
Source: A Comparison of the Defense Acquisition Systems of France, United Kingdom, Germany and the United States

Figure 3-1 Organization of the German Federal Ministry of Defense

2. The Bundeswehr

The Bundeswehr, the military portion of the Ministry of Defense was established in 1955 pursuant to the 1949 German Constitution. The senior military leader is the Chief of Staff of the Armed Forces, supported by a deputy Chief of Staff. He is the senior military advisor to the Minister of Defense and the Chancellor and a non-voting member of the Cabinet's Federal Security Council. He chairs the Federal Armed Forces Defense Council, which consists of the Deputy and the Chiefs of the three services. The Army, Navy, Air Force and the Surgeon General make up the rest of the Bundeswehr.

3. The Requirements Process

The military services are organized in the same way with each having a central staff, a C2 Command for operational planning and mission control, a support command and an office for central issues, which has the function of a Training, Development, and Doctrine Command or TRADOC. The military service staffs determine military equipment requirements, provide logistics support, perform operational tests on new equipment, and maintain the weapons systems. They are involved throughout the acquisition process.

This process operates similarly in each service. The German Army develops their requirements through their troop schools and then presents them to TRADOC. In the other services, it is the user or operating commands that develop their requirements and then present them to the support commands. Then, the TRADOC and the support commands take over by way of their respective "study groups," now called the "Standing Joint Study Group," to check the requirement against the concepts and planning directives of the various staffs and commands and also to validate the military need. The study groups then develop the "Staff Requirement," which describes the equipment shortage and the military requirements.

The service staffs work with the Directorate General of Armaments (DGA) in the selection of possible solutions, much like in the Analysis of Alternatives (AOA) done in the US military, and participate in the research and technology concept efforts as users.

4. The German Defense Acquisition System

The DGA is the senior defense official responsible for research and development of new technologies and planning, supervision, and control of all Bundeswehr procurement programs (26: p. 2-15). He is assisted by the Director of Armaments Management, a Director of Defense Technology, and eight staff offices, which have responsibility for oversight, planning and control of their respective functional areas.

There are three divisions engaged in general tasks: (1) The Armaments Planning and Control Office; (2) The Armaments-Related Economic and Legal Affairs Division; and (3) The International Armament Affairs Office. The Armaments Planning and

Control Office is responsible for the administrative control of personnel, budget and finance, funds management, and the Federal Office of Military Technology and Procurement, also known as the BWB. The BWB is the acquisition organization of the defense ministry. The Economic and Legal Affairs Office is responsible for economics to include industrial base issues, legal issues to include copyrights, patents, and contracts. It is also responsible for the disposal of military equipment. The International Armaments Affairs Office is responsible for policies with NATO, Western European Union and other European countries with respect to armaments cooperation, military aid and military supply to international organizations.

The other five offices are focused along technical areas with three dedicated on Service needs but oversight is still managed by the BWB. With the technological revolution impacting on military operations, particularly regarding command, control, communications and interoperability, oversight and planning in this area has been given new emphasis with the Equipment and Technology, Intelligence, Command and Control, Communication, and Information Technology Office taking the lead role.

2. The BWB

The BWB, which was created to provide an interface between the Bundeswehr and industry, is under the control of the FMOD, but is not a military organization but a civilian one that operates independently. Over the years, its role has evolved and it is now responsible for the project management of the weapons systems programs. It is also responsible for the definition, development, engineering, test and evaluation, production and procurement of military weapon systems.

The President heads the BWB assisted by two Vice-Presidents, one for technology and one for Economy. It has three administrative divisions: (1) the Central Administrative (ZA) Division which is responsible for human resources, budget, payment of invoices and general administrative issues; (2) the Central Economic Affairs (AW) Division which is responsible for audits, pricing policy, cost audits and policy issues relating to the economy; and (3) the Center for Technology Affairs (AT) which is responsible for the scientific collection of information, international cooperation, government quality assurance, environmental occupation, safety human engineering and

technology related issues. Central Controlling is responsible for internal cost control and oversight and inspection of the acquisition system.

The seven technical divisions are responsible for the management of the weapon systems programs and are organized according to the type of equipment as in missiles, ships, aircraft or others. These offices are responsible for systems engineering, integration, research and technology, and in-service and post-design services. Through their respective contracts divisions, they also award the development or procurement contracts to industry. The armament project managers reside in these divisions and perform important roles in reviewing requirements. They are vested with the authority to revise or eliminate requirements for cost or schedule reasons. Figure 3-2 is a depiction of the BWB's organization.

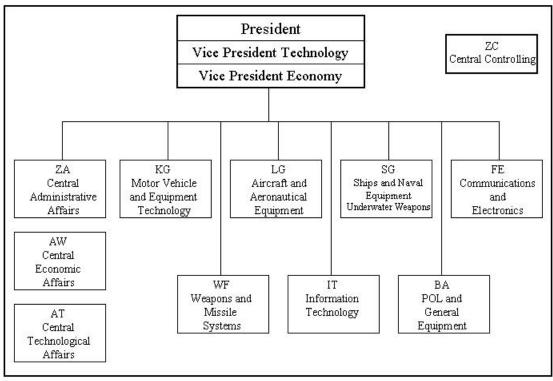


Figure 3-2. Federal Office for Defense – Technology and Procurement (BWB)
Source: A Comparison of the Defense Acquisition Systems of France, United Kingdom, Germany and the United States

Figure 3-2 Federal Office for Defense-Technology and Procurement (BWB)

3. The FMOD Planning, Programming, Budgeting System (PPBS)

The overarching document for planning is the Defense Policy Guidelines, which describes the present and future political, economic, and military conditions, to include risks and threats. It lays out the armed forces planning for a period of five years in the mid-term, and long-term (fifteen years). This document then describes the defense policy and structure necessary to address these issues with the goal of providing defense planners with stable financial and structural strategic assumptions. The Guidelines are prepared by the Planning Staff of the Federal Ministry of Defense and endorsed by the Minister himself.

The Military Strategic Objectives derived from the Guidelines provide the structure for the development of concepts, mission definitions, and a set of goals necessary to accomplish them (26: p. 2-19). The Bundeswehr Concept then prioritizes the tasks necessary to accomplish the military strategic concepts and the design of the forces needed to meet mission needs. The next document is the Planning Guideline that translates the threat-oriented statements of need into definable requirements. The Bundeswehr Plan is the final document, which provides the military needs to include military equipment and weapon systems. It is in this document that a project must be scheduled to become a part of the annual program as a basis for the annual budget estimate.

The Bundeswehr Plan prepared by the FMOD initiates the budget process with the Federal Ministry of Finance providing the budget guidelines after its submission. Then, the Armaments Directorate and Services develop the budget needs and prepare a consolidated budget for military systems and equipment. The FMOD Budget Directorate subsequently submits the draft budget to the cabinet. The Finance Ministry reviews the Draft Defense budget and after coordinating with and obtaining approval of the budget from the Cabinet, the budget is submitted to Parliament for its own review process. The FMOD portion of the budget process takes about eight months but is relatively stable with few changes happening in the budget of weapon system programs once the government has made its commitment to the program. Figure 3-3 shows the budget flow.

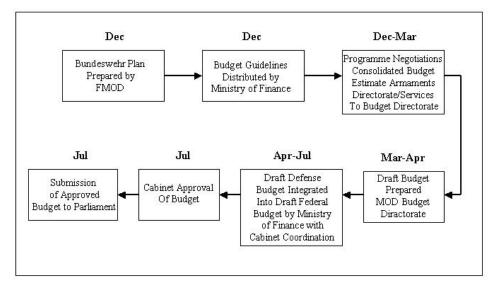


Figure 3-3. Federal Ministry of Defense – Typical Flow of Budget
Source: A Comparison of Defense Acquisition Systems of France, UK, Germany and the US)

Figure 3-3 Federal Ministry of Defense – Typical Flow of Budget

4. The FMOD Acquisition Management Process (26: pp. 2-21 to 2-24)

The document that governs program development is the "Directive for the Planning, Development, Procurement, and Acceptance of Defense Materiel and Data Processing Projects" (EBMat). The process has five phases starting from the Pre-Definition phase and continuing through the In-Service phase. A decision and approval is required at the end of each phase to determine as to whether or how, the program is to be continued. The purpose of this is to reduce program risks.

a. Pre-Definition Phase

It is at this stage that the military need is validated or verified by the Services. The Tactical Concept describes the equipment shortage and the military requirement. Market research and evaluation is performed by the FMOD/BWB with the participation of the military and industry. Alternatives, including foreign ones, are considered. Increased emphasis is placed on the affordability of systems and equipment and for streamlining the process.

A list of prioritized alternatives is given and once these are defined and their economic impacts estimated, the Staff Requirement (Tactical/Technical Requirement – TTF) is prepared. This phase is concluded with a proposal or selection of a tactical-technical solution.

b. Definition Phase

In this phase, the project management responsibility is given to the BWB, which will complete the final specifications. The Industry is usually involved at this point but care is taken to preclude any prejudgment on a subsequent competitive contract award. The project manager and the team working groups are established during this phase including all those responsible for technical-engineering issues at the BWB. A project officer from the military service support command is also assigned to represent service branch priorities within the project managers' working groups. Joint decision-making and coordination is resorted to between the service branch and the BWB.

The Definition phase ends with the completion and approval of the "Development Baseline."

c. The Development Phase

The Development phase includes the selection of the prime contractor where the development contract defines the contractor's responsibilities, including the generation of materiel baselines, service and logistics capability. Initial operational capability and logistics supportability trials are performed during this phase. The BWB conducts the development efforts but the Armed Services are responsible for certifying to the systems logistics supportability and for the successful completion of operational testing and "Approval for Service Use". This phase ends with the approval of the "Approval for Production" document.

d. Procurement Phase

The procurement phase includes all activities necessary to execute production, including the selection of the contractor for the procurement phase. It concludes with the delivery of the production equipment to the military and the preparation of the Final Report by the BWB.

e. In-Service Phase

The delivery of the first equipment signals the beginning of the In-Service Phase. The user takes responsibility for the equipment, and an in-service manager is assigned who is responsible for ensuring the operational capability of the system or equipment. Since the service schools are normally the first to receive production equipment, the Services prepare for initial operational capability by setting up at the service schools systems/equipment specific training, maintenance and field operations, and core units of school personnel for the training of field user units' personnel.

The process of systems/equipment documentation to integrate the new system/equipment into the services' inventory is performed by the support and logistics commands. The BWB however continues to provide engineering and logistical support and will buy the spare parts, issue repair contracts and develop and incorporate changes for deficiencies and operational improvements. Significant changes could be enough to start the process once again.

f. Designation of Programs

There are three program categories for systems/equipment. Category 1, which is a major program and requires approval from the Bundestag or Parliament, includes systems with a value larger than 20 Million deutsche marks (DM) in development and greater than 50M DM in production. Category 2 programs (from 2-20M DM for development and 5-50M DM for production) receive approval with the Armed Service Command within the military services. Category 3 programs which have monetary values below the Category 2 thresholds.

C. THE UNITED KINGDOM (UK) DEFENSE ACQUISITION SYSTEM

1. The Defense Organization of the UK

The central machinery for managing United Kingdom's Armed Services is through the Ministry of Defense (MOD. Policy-making is concentrated in its headquarters with military and civilian staffs work in integrated hierarchies. The Defense Council under the chairmanship of the Secretary of State for Defense is vested with a range of powers under government statute to conduct Defense in the UK. Under the Defense Council are the Service Boards, the Admiralty, Army and Air Force Boards,

which exercise a range of formal and statutory powers to administer their respective service and personnel.

The Secretary of State for Defense is responsible for the formulation and conduct of defense policy, as well as providing the means by which it is conducted. Two Ministers of State assist him, one for the Armed Forces, which deals with operational and policy issues, and one for Defense Procurement. There's also a Parliamentary Undersecretary (PUS) who assists him with personnel issues and estate business among other matters (26: p. 3-7).

The Secretary of State and his three Ministerial colleagues head the Ministry of Defense and are accountable to Parliament for all Defense matters. Parliament exercises oversight through debates, departmental Select Committees, questions, both oral and written, and inquiries from individual Members of Parliament (MP). Parliament also holds the Department to account for public money through the House of Commons Public Accounts Committee.

The aim of the MOD is to define the strategy and maximize the defense capability, within the allocated resources, required to (26: p. 3-8):

- Deter any threat to, and if necessary defend, the freedom and integrity of the UK and its dependent territories, including the provision of support as necessary for the civil authority in countering terrorism.
- Contribute to the promotion of the UK's wider security interests, including the protection and enhancement of freedom and democratic institutions, and the promotion of free trade; and
- Promote peace and to help maximize the UK's international prestige and influence.

The MOD structure is shown in Figure 3-4, which shows the Secretary of State with two principal advisers: the Chief of Defense Staff or CDS for the military, and one civilian, the Permanent Under Secretary of State or PUS. They share responsibility for most of the Department's business and are neither subordinate nor superior to the other.

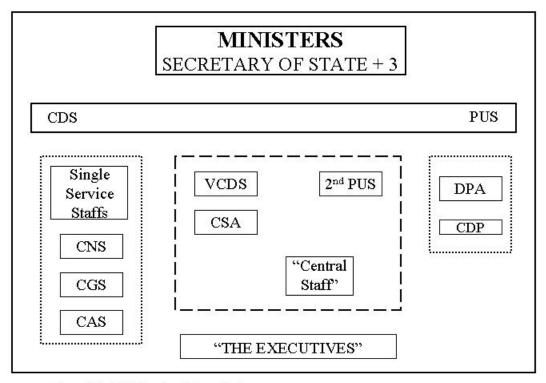


Figure 3-4. MOD Top Level Organization
Source: A Comparison of the Defense Acquisition Systems of France, United Kingdom, Germany and the United States

Figure 3-4 MOD Top Level Organization

The CDS is the head of the Armed Forces in the UK and is selected from any Service. He is the primary military adviser to the Secretary of State and the Government. The PUS is the primary civilian adviser on Defense and is mainly responsible for policy, finance, and administration of the Department. He coordinates the provision of advice to Ministers and is also the MOD's Principal Accounting Officer, which makes him accountable to Parliament for the expenditure of all public money voted for Defense purposes.

The CDS and PUS have their own deputies, the Vice-Chief of Defense Staff (VCDS) and the 2nd PUS respectively. The two deputies jointly head the Central Staff, the heart of the Ministry of Defense. Below the CDS are the three Service Chiefs of Staff: the Chief of Naval Staff, the Chief of General Staff and the Chief of Air Staff. They are responsible for their respective Service's overall fighting effectiveness,

efficiency and morale in order to deliver the military capability in accordance with Defense policy needs.

The Chief of Defense Procurement (CDP) heads the Defense Procurement Agency (DPA) and is its Chief Executive. He is responsible for the development and acquisition of weapons systems. The DPA is the largest procurement organization in government.

The Chief Scientific Adviser (CSA) helps ensure that scientific and technological considerations are given full weight in decision-making and has significant influence over research work primarily being undertaken by the government-owned Defense Evaluation and Research Agency (DERA). Customarily, he is a distinguished scientist or engineer brought into the civil service on a fixed-term appointment (about five years).

The positions previously described compose the Defense Council. The non-Ministerial members of the Council compose the Finance, Planning and Management Group (FPMG). The FPMG acts as the Department's corporate board and is responsible for directing a number of key processes, particularly the annual re-costing of the Defense programs and the planning process. The PUS normally chairs the FPMG.

2. The Requirements Generation Process

The Central Staff is organized into several areas but the one most concerned for acquisition is the Systems Area under the Deputy Chief of the Defense Staff (Systems). It is responsible for identifying the necessary equipment capabilities for the Armed Forces, and for formulating the Operational Requirements or specifications for the military equipment. It manages the Applied Research Program as well.

The Operational Requirements (OR) branches in the System Area are responsible for defining capability gaps within their defined area and describe these capability gaps in User Requirement Documents (URD) that state the function and desired performance of the capability in general terms. The URD shall have the benefit of the results of feasibility studies, usually involving both the DERA and industry. The URD is the official statement of the requirements to fill the capability gap.

The OR branches work quite closely with counterparts in other areas in the Central Staff and those outside it. Those who make significant contributions to the process are the Services who will operate and maintain the equipment, the DPA's technical and project management experts, DERA and industry.

Chaired by the Chief Scientific Adviser, the Equipment Approvals Committee (EAC) is the one ultimately responsible for the requirement and makes the necessary recommendations to Ministers on the largest projects (defined as in excess of £400M total procurement cost). It authorizes others within its delegated powers for projects falling between £100M-£400M. Below the £100M threshold, the EAC delegates responsibility to two and one-star officers.

The scrutiny, whether done by EAC or delegated by them, is a careful comparison of the relative cost and operational effectiveness of alternative solutions to the requirement. Systems are assessed against a wide variety of scenarios and scrutiny is made of the life-cycle cost of operating a system. This means reliability and maintainability factors are given significant consideration along with the manpower to sustain and support the system. This process is termed as the Combined Operational Effectiveness and Investment Appraisal (COEIA) (26: p. 3-17).

Additionally, other issues are examined including the appropriate procurement strategy, whether to develop a new system in collaboration with other countries or developing it domestically, buying commercial off-the-shelf items, analysis of risks for each option, among others issues. Only after the EAC or its delegated authority are convinced of the answers to its many questions will it decide to allow a project to proceed to the next stage.

3. The Defense Procurement Agency (DPA)

The DPA buys over £5 billion of new systems, equipment and initial logistics support for the Armed Forces and manages more than 13,000 contracts with approximately 5,500 personnel. Acquisitions range from purchases of submarines to small spare parts for a field radio.

The Minister of State for Defense Procurement oversees the procurement of Defense equipment but it is the responsibility of the DPA. Led by the Chief of Defense

Procurement or CDP, the DPA is accountable to Parliament for the spending of the funds that has been allocated for equipment procurement and logistic support. The CDP has two deputies, the Deputy Chief Executive (DCE) and a Deputy Chief of Defense Procurement (Operations) (DCDP [Ops]) (26: p. 3-18). There is an Executive Board consisting of six Executive Directors and the DCE. Each of the Executive Directors is responsible for managing the procurement of different systems or types of Defense equipment and is assisted by ten Support Directors who manage grouping of similar types and ranges of equipment. They are grouped into 11 Peer Groups where similar types and systems are grouped regardless of land, sea and air specialization. Within each of these Peer Groups, management of the procurement project is vested in the Project Managers who lead integrated management teams incorporating technical, contracts, finance, quality control and logistic support expertise. Figure 3-5 shows the DPA organization.

The aim of the UK Defense procurement is to buy equipment for the Armed Forces that meet their requirements and timescales with the best value for money. With the MOD spending around £12 billion on goods and services annually, competition is fundamental to getting value for money and is used whenever possible. The entire life cycle of the equipment is considered since support costs can exceed the cost of the procurement over its useful service life. Foreign contractors are free to bid for the majority of MOD business as prime or sub-contractors and offsetting some of the value of the contract is resorted to and can be a deciding factor in competition for a contract. Collaborative ventures with other countries are also resorted to because Defense equipment has become increasingly complex and expensive but only as an approach to obtaining the best value.

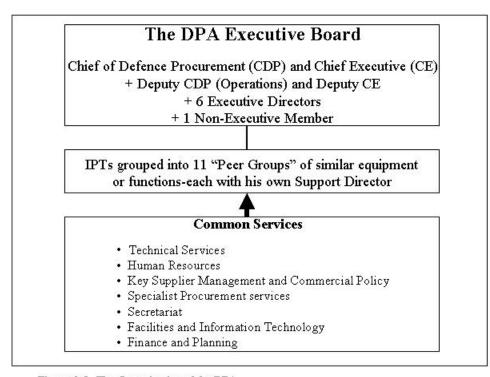


Figure 3-5. The Organization of the DPA
Source: A Comparison of the Defense Acquisition Systems of France, United Kingdom, Germany and the US

Figure 3-5 The Organization of the DPA

4. The MOD Defense Acquisition Cycle

The Defense cycle of the MOD had been changed over the years in order to streamline and make acquisitions more responsive to the needs of its war fighters. However, procurement of major equipment continued to experience budget and schedule overruns even though risk was reduced significantly. By 1998, a Strategic Defense Review (SDR) was instituted by the government to review MOD procurements and sought proposals on how to do them faster, cheaper and better. Known as the Smart Procurement Initiative (SPI), the review fundamentally changed the structure, the process, and the procedures in the acquisition organization. It introduced a modified acquisition cycle aimed at improving risk evaluation and reducing the interruptions to project workflow. It is expected to be a more robust answer to the challenges of Defense acquisitions in the face of less predictable threats and tasks, increasing complex and diverse Defense equipment, a rapidly changing industrial structure, and new Treasury performance targets for time and cost of Defense procurement (26: p. 3-22).

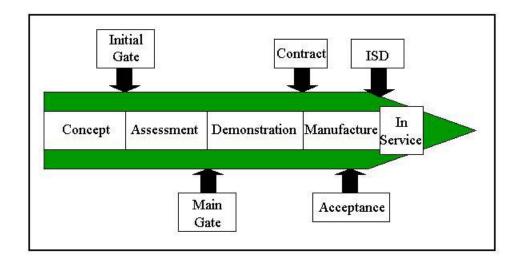


Figure 3-6. The Ministry of Defence Procurement Phases
Source: A Comparison of the Defense Acquisition Systems of France, Germany, United Kingdom and the United States

Figure 3-6 The Ministry of Defense Procurement Phases

The current acquisition cycle reduces the number of formal approval points and reduces the number of phases. But the primary change was the establishment of Integrated Project Teams (IPTs), which were responsible and accountable for the acquisition. The IPT focuses on the customer and the goals of their activities are to achieve a smooth flow of responsibility from the start to the finish of the acquisition process.

The central theme of the government's approach to procurement of Defense equipment is value for money, hence, competition continues to be the MOD's main tool in achieving this procurement goal.

The phases of the acquisition cycle are concept, assessment, demonstration, manufacture and in-service. Key features of the cycle include the Initial Gate, Main Gate Contract, Acceptance and In-Service Date.

a. Concept

The goal of the concept phase is to identify which options for a given mission should be developed further; eliminating the options not worthy of further investigation. A survey and demonstration of technologies is taken from the Applied Research Programme (ARP) together with high level Operational Analysis.

The options to meet a capability gap are carried out by the Capability Working Groups (CWGs) formed by the Capability Manager to oversee the definition of the requirement by applying the principles of Systems Engineering. An inceptive IPT is formed to make preliminary through-life cost estimates to go with the draft User Requirement Document (URD) with a shortlist of viable options. The shortlist of options is then presented as the case for the formal Initial Gate Approval.

b. Initial Gate

The Initial Gate marks the approval by the Equipment Approvals Committee of the resources needed for Assessment. The EAC recognizes that the considerable expenditure requires formal approval of a mission need and the funds to be spent. The preliminary through-life cost estimates are also noted by the EAC as reasonable for the proposed capability subject to validation during Assessment.

c. Assessment

The goal of the assessment phase is to select a single technological option for demonstration, with technical risk from sub-systems reduced to acceptable levels. This is done after the completion of comparative operational analysis of the alternative options.

Indicative procurement and life cycle costs shall have been set during the assessment phase. Operational performance trade-offs are undertaken iteratively to determine the optimal balance between whole-life costs, performance and time. At the end of this phase, the goal is to identify the best value for money solution and establish firm costs for the acquisition as well as its ownership throughout its entire life.

The Performance Requirement needed for the approval submission consists of:

- Systems Requirement Document (SRD);
- Key Performance Parameters; and
- Tradable Requirements

All of these requirements are linked to mission needs but only the Key Performance Parameters are absolute while all the others are tradable during the Demonstration Phase. Specific output requirements are also identified but the implementation and technical details are not. Other documents included in the approval submission prior to the demonstration phase are cost and time boundaries, the procurement and through-life support strategy, and a plan for managing the remaining risk, which are all material sub-sets of the Through-Life Management Plan (TLMP).

About 15 percent of project costs may be spent up to the end of the assessment phase, which normally allows for an iterative risk reduction if necessary. A key change to previous practice is that, rather than going to Full Development to meet a pre-determined in-Service Date (ISD), the IPT is encouraged to focus on activities that will reduce project risks and will be key to reaching a position where both the MOD and the selected contractor(s) are satisfied that they have a solid basis to proceed with the project (26: p. 3-25).

d. Main Gate

This is the major review point, established at the end of the Assessment Phase, which determines commitment to a project. It is at this point in which the IPT and the customer jointly submit to the approving authorities recommendations on whether the project should continue to the Demonstration and Manufacture phases. Additionally, they present recommendations as to the firm parameters that need to be established for the project going forward. This means a firm Equipment Programme funding line, a firm total cost for any infrastructure, assets and associated equipment whole-life costs, a firm ISD, and a finalized performance-based requirement. Any project that does not provide an acceptable balance between performance, whole-life costs and time should be cancelled (26: p. 3-26).

After granting Main Gate approval, further reference to the approving authorities after the Demonstration phase are needed only in exceptional cases:

- the project exceeds agreed performance, cost and schedule thresholds; and
- wider affordability or other issues have arisen that could change or undermine the original decision.

e. Demonstration

This phase involves the selection of a single contractor for the remaining development and production of the equipment. Technical risk shall have been reduced to a degree that the contractor will be willing to assume it and the project manager is willing to transfer the same. Performance trade-offs continue to be undertaken during the Demonstration phase to refine and finalize the solution, and to establish a firm capitalized asset value and best estimates to support costs. Design to cost principles are normally employed, which is a significant change to the previous practice of using requirements management to maximize performance at a fixed cost. Development is started during this phase and operational trials in the field or synthetic environments could be undertaken.

f. Manufacture

This phase starts the production run of the equipment after completion of full development. The manufacturer and the user continue to have equipment trials against acceptance criteria. When the customer accepts the equipment, the in-service phase commences and the Capability Manager's role as the customer for the equipment ceases.

g. In-Service Date

This is the date on which the capability becomes available to the specific Commander-in-Chief (CinC) and considered to be the most significant milestone in the equipment's existence. At this stage, effective support of the equipment should be available as well as sustainable as agreed to and identified in the equipment support plan.

The appropriate CinC has now become the IPT's customer for the availability and activity levels for the equipment. Once the development, technical risk-reduction and acceptance into service are complete, IPT control is transferred to the Defense Logistics Organization.

h. In-Service

During this phase, the IPT transfers to the Chief of Defense Logistics (CDL) organization. The designated equipment support branch, which was a part of the IPT from the initial concept phase, now leads the IPT, which would be significantly smaller at this point. The existing IPT will be responsible to incremental technology acquisition, minor upgrades, and refits in accordance with the project's TMLP and will require additional project management resources with the Defense Procurement Agency or elsewhere as necessary.

i. Disposal

The IPT is also responsible for coming up with and carrying out plans for the disposal of the equipment. The most efficient and effective means of disposal are needed and should comply with national and international safety and environmental legislation. This could mean sale, recycling or destruction of all or part of the equipment.

5. Resources for Defense

The government allocates money to the MOD and the Armed Forces every year in what is known as the Public Expenditure Survey (PES). In the spring, the MOD informs the Treasury of the probable cost in cash of the programmes it wants to carry out over the next three financial years. The officials of both agencies carry out detailed discussions over several months, until final decisions are collectively taken by the Cabinet Ministers. The Chancellor of the Exchequer then announces the results for all departments in his budget statement in late November or early December. The budget set for the first year is a fixed cash sum, while the cash totals for the second and third years are firm plans that form the basis for the following year's PES round when they are reviewed in the next annual negotiation.

D. THE UNITED STATES DEFENSE ACQUISITION SYSTEM

1. The US Department of Defense

The United States Department of Defense (DoD) was created with the passage of the National Defense Act of 1947. The Secretary of Defense heads the Department and exercises authority over the three services. Figure 3-7 shows the overall view of the DoD with the warfighting elements shown by the Unified Commands for each theater. Within the Department, the three organizations involved in acquisition are the Navy, Army and the Air Force. Other agencies that perform supporting roles to defense acquisitions are the Defense Contracting Management Agency (DCMA), which provides contract administration for the DoD, and the Defense Contract Audit Agency (DCAA), which provides audit support for other defense agencies and all the services.

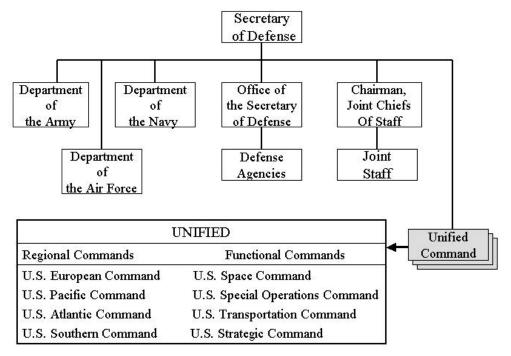


Figure 3-7. Department of Defence Warfighting Elements
Source: A Comparison of the Defense Acquisition Systems of France, Germany, United Kingdom and the United States

Figure 3-7 Department of Defense Warfighting Elements

The primary role of organizing, training and equipping the military is vested in each service. Every service is headed by a Service Secretary who is a political appointee nominated by the president and approved by Congress. All Service Secretaries report to

the Secretary of Defense directly. Shown in Figure 3-8 is the organizational structure of the Office of the Secretary of Defense (OSD). A deputy secretary and several undersecretaries, who have significant influence in acquisition, assist the Secretary. But the one responsible for acquisition matters within the OSD is the Undersecretary of Defense for Acquisition, Technology and Logistics (USD (AT&L)).

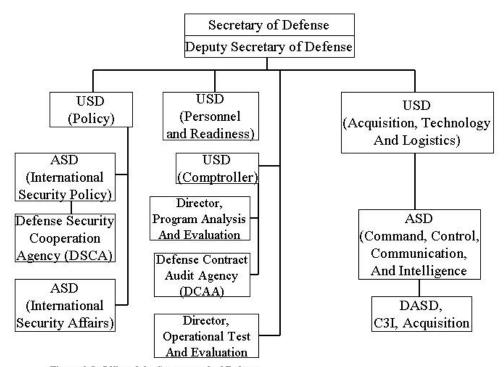


Figure 3-8. Office of the Secretary of of Defense
Source: A Comparison of the Defense Acquisition Systems of France, Germany, United Kingdom and the United States

Figure 3-8 Office of the Secretary of Defense

2. The Requirements Generation Process

The process of determining the US DoD's future military needs, known as the Requirements Generation Process, is prescribed under the Chairman of the Joint Chiefs of Staff Instructions 3170.01B (CJCSI 3170.01B), which sets the policies for the requirements generation system. The CJCSI 3170.01B provides policies for developing, reviewing, validating, and approving Mission Need Statements (MNSs), Operational Requirements Documents (ORDs), and Capstone Requirements Documents (CRDs) as required; delegates oversight authority for the requirements generation system to the Vice Chairman of the Joint Chiefs of Staff, assisted by the Joint Requirements Oversight Council (JROC) and members of the Joint Staff; and provides guidelines for the conduct

of requirements and program reviews at each milestone for Major Defense Acquisition Programs (MDAPs) prior to their being forwarded for Defense Acquisition Board (DAB) review, and Major Automated Information System (MAIS) acquisition programs prior to being forwarded to the Assistant Secretary of Defense (Command, Control, Communications and Intelligence (C³I)) or appropriate component acquisition executive and JROC special interest programs (13: p. 1).

One of the three principal parts of the Defense Department's decision support systems, the requirements generation system provides information regarding the future mission needs of its operating commands. Requirements generation is composed of four phases: 1) definition, 2) documentation, 3) validation, and 4) approval (13: p. B-1). In the definition phase, the Commanders in Chief or the components conduct a Mission Area Analysis (MAA) or Mission Need Analysis (MNA) that will define, analyze, evaluate, and justify the development of a requirements document. In the documentation phase, the DoD component formally prepares and reviews the necessary documents to support the mission need defined in the first phase. The Mission Need Statement (MNS) is a statement of the operational capability requirement written in broad operational terms. The moment the MNS is validated after a formal review process, it means that a non-material solution cannot satisfy the need and consideration of a new concept/system material solution is made. An Analysis of Alternatives (AOA), which bridges the MNS and the Operational Requirements Document (ORD), is conducted through studies and concept exploration. The ORD transposes the MNS into more specific performance characteristics and provides the operational factors or parameters like reliability and maintainability, suitability, speed, durability, size, weight, etc., including thresholds and desired outcomes. The ORD provides the requirements for the Acquisition Management System and the Planning, Programming and Budgeting System (PPBS), and links the MNS to the acquisition process. In the approval phase, the concurrence of the approval authority is documented in the final validated document.

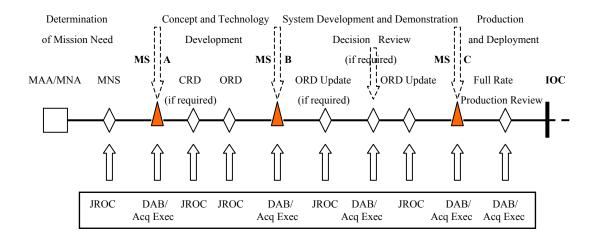


Figure 3-9 Current Requirements and Acquisition Interface
Source: From Chairman, Joint Chiefs of Staff Instructions 3170.01B

3. The DoD Acquisition System

As mentioned above, the DoD uses three decision support systems to manage the department. These are: (1) the Requirements Generation Process; (2) the Planning, Programming and Budgeting System (PPBS); and (3) the Acquisition Management System. The three systems interact with each other even as each operates independently. The products coming out of the three decision support systems become the basis for program execution and product delivery. There is overlapping among the support systems and this facilitates the acquisition system to deliver timely and cost effective systems (26: p. 4-35).

a. The Planning Programming and Budgeting System

The PPBS traces its roots in 1962 when then Defense Secretary Robert McNamara developed and instituted this unique system to link strategic planning activities to the budget. It provides the mechanism to manage resource allocation in the DoD. Planning, the responsibility of USD (Policy) is the first phase of the process and determines the capabilities required to carry out the US national security strategy and the defense resources available. Programming translates the results of the planning phase into a rational six-year program within available resources. Programming is the responsibility of the OSD's Program Analysis and Evaluation Office. Then budgeting,

the responsibility of the OSD Comptroller, transforms the program into annual budgets for the service in Congressional appropriation structure. When the budget issues caused by the Services' Budget Estimate Submission (BES) are resolved, the OSD issues program budget decisions and the DoD budget is included in the President's Budget, and submitted to Congress.

b. The Acquisition Management System

The DoD Acquisition Management System is governed by three key documents, which serve as guides to the defense acquisition business. The first is the DoD Directive 5000.1, the Defense Acquisition System, provides broad policy and principles for all acquisition programs. It also identifies the key officials and panels for managing the system. The DoD Directive 5000.2, Operation of the Defense Acquisition System, establishes the framework for translating mission needs into stable, affordable, and well-managed acquisition programs. The other regulation is the DoDR 5000.2, Mandatory Procedure for Major Defense Acquisition Programs (MDAPS) and Major Automated Information System Acquisition Programs (MAIS). The 5000.2-R provides detailed policies and procedures to guide the development and production of major programs of the DoD. These three documents have recently been cancelled and replaced by an interim guidance issued by the Deputy Secretary of Defense (DUSD), Paul Wolfowitz on October 30, 2002. The intent of the interim guidelines is to rapidly deliver affordable, sustainable capability that meets the warfighter's needs by creating an acquisition policy environment that fosters efficiency, flexibility, creativity and Essentially, the interim guidelines establish a simplified and flexible innovation. approach for managing acquisition programs and also provides for a simplified and flexible management framework for translating mission needs. Three principles govern the operation of the defense acquisition system before the new guidance and these are:

- Translate operational needs into stable, sustainable, and affordable programs;
 - Acquire quality products; and
 - Organize for efficiency and effectiveness.

A fourth principle would be "to create an acquisition environment that fosters efficiency, creativity, flexibility and innovation" (21).

The four phases in the current US DoD Acquisition System are: (1) Concept and Technology Development; (2) System Development and Demonstration; (3) Production and Deployment; and (4) Operations and Support. As the program advances through the phases, it must pass decision points called Milestone Decision Points (Milestone A to C). At every milestone, the Milestone Decision Authority (MDA) will make a determination as to whether the system is programmatically and technologically ready for the next phase. For Major Defense Acquisitions, the Defense Acquisition Board (DAB) is the MDA. One primary difference between the current system and the previous ones is that the program can enter acquisition at any decision point or phase provided that the stated entrance criteria are satisfied. Another is that the emphasis is now on evolutionary development where the major consideration is the maturity of the technology so that the system can be delivered to the warfighters as fast as possible. The system is then further developed in blocks as technology matures. Shown in Figure 3-10 is the Defense Acquisition Management Framework for Major Programs.

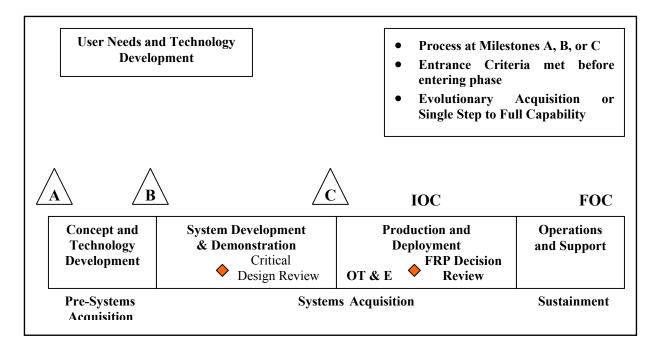


Figure 3-10 Department of Defense Acquisition Management Framework Source: From *Operation of the Defense Acquisition System*

4. The Defense Acquisition Structure

As mentioned earlier, the USD (AT&L), also known as the Defense Acquisition Executive (DAE), is the one responsible for acquisition matters within the DoD. He sets acquisition policy and manages the acquisition system. The position of Service Acquisition Executive (SAE) was also created in the Services and to create "short lines of command," the Program Executive Officer (PEO) structure was formed with four levels of management. The lines of communication between the SAE and the program manager (PM) are limited to two as shown in Figure 3-11 (26: p. 4-22).

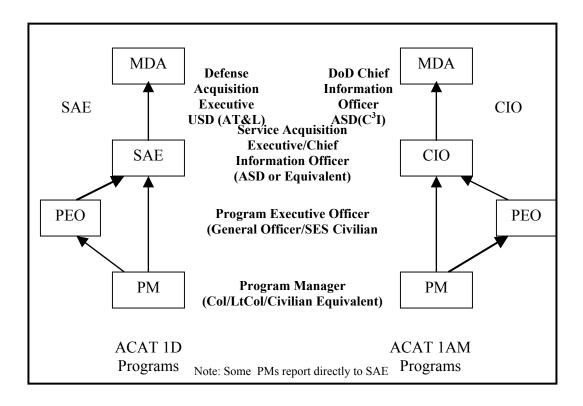


Figure 3-11 Acquisition Program Reporting Source: From A Comparison of the Defense Acquisition Systems of France, United Kingdom, Germany and the United States

Each Service has a single, full-time SAE at the Assistant Secretary level who is responsible for making acquisition policy and managing the acquisition system within the department. The Services also created streamlined acquisition organizations, which includes the PM, the PEO, and the SAE. However, they are managed with slightly different management policies and structures. In the Navy, responsibility for the

acquisition of systems and providing logistics support fall under subordinate Naval Systems Commands. Among those are the Naval Air Systems Command (NAVAIR), the Space and Naval Warfare Systems Command (SPAWAR), the Naval Sea Systems Command (NAVSEA), and the Marine Corps Systems Command. The Army and the Air Force have their material commands.

5. Acquisition Planning in the US DoD

a. Introduction

There is no country in the world that approximates the United States in the aspect of expansiveness of the defense establishment in terms of force size, defense spending, number of systems, procurement actions or any other comparative measure. Hence, it is quite difficult to compare the US defense establishment with any other country, including those that have the largest economies in the free world.

Even so, it must be pointed out that most countries essentially conduct the acquisition process in much the same way or procedure: (1) identification of the requirement; (2) definition or analysis of alternatives; (3) conduct of feasibility studies or concept exploration; and (4) design, development, test, production and fielding of the system. Organizational structures are a little different but there is always an acquisition organizational structure designed to address the execution of acquisition programs, especially for major defense acquisitions.

It has been said that, "failing to plan is planning to fail." This is a truism that still rings true today and will continue to ring true in the future. This particularly applies to military organizations. While the Philippine defense establishment conducts planning of its acquisitions, it does so with a lot of limitations. It doesn't have a single document that could be construed as an acquisition plan but provides elements of an acquisition plan as it goes through an acquisition.

On the other hand, acquisition planning in the US defense establishment is required under the Part 7 of the Federal Acquisition Regulations (FAR); The Defense FAR Supplement (DFARS); Interim Guidance on the defense acquisition system; and several other regulations and instructions as they apply to the different services of the defense establishment.

The acquisition plan is quite an important tool since it permits the participants in the planning of an acquisition to establish an approach logically and systematically to address a government need or requirement. It also allows the participants to anticipate problems that may arise and provide for actions to avoid or mitigate such problems.

The primary responsibility for writing the acquisition plan falls under the program manager with the assistance of the IPTs. The program manager seeks the expertise and input from the various functional activities involving the acquisition process in the preparation of the plan. Thus, good coordination with other team members is particular important in developing an appropriate acquisition strategy or approach. Normally, the most effective plans are a result of good team effort.

b. Preparation and Approval (1: pp. 10-11)

The approval of the acquisition plan is obtained through the utilization of a five-phase preparation process. These are drafting, consultation, resolution, local signature and external approval as required. Necessarily, the amount of time required to finish one phase is dependent on the complexity of the particular acquisition.

- 1. The first step is to figure out the plan then document it using the format and content assistance provided under FAR Part 7. Those involved in carrying out the acquisition should be brought together early in the process to discuss the issues that need to be addressed in the acquisition plan. The acquisition plan should then be drafted by either letting team members draft sections of the plan that fall under their expertise or assign one individual to draft the entire plan, who may then contact other team members as necessary for assistance. What's important is that all members of the team should contribute their expertise to the plan;
- 2. The consultation phase is the next step. The agency may have developed a process to efficiently obtain the required coordination and inputs to the plan preparation. Those who review the plan can provide applicable rules and regulations as well as specific phrasing to make the statements in the plan clearer and more understandable.

- 3. The resolution phase includes all the important comments that need to be resolved. The resolution may be done through the concurrence of the program office; through agreement by the reviewer with the position of the program office; or by agreeing to disagree on the issue and elevating it to higher approving authorities for resolution.
- 4. After adequate resolution of all issues and comments, the program manager and the contracting officer sign and date the plan. The names and signatures of the required signers are added to the cover page.
- 5. The last phase involves the approval of the acquisition plan. The approved plan is then returned to the agency concerned or the contracting officer for incorporation in the official contract file.

If changes are required or requested to the acquisition plan by the reviewing authorities, the changes are accomplished through the incorporation of change pages.

c. Contents of the Acquisition Plan as Prescribed under the FAR

The specific contents of an acquisition plan varies depending on the nature, circumstances, and stage of an acquisition but, in accordance with FAR Subpart 7.105, the standard plan that the US defense establishment adheres to has the following format:

- a. Acquisition Background and Objectives
 - 1. Statement of Need
 - 2. Applicable conditions
- i. Requirements for compatibility with existing or future systems or programs.
- ii. Any known cost, schedule, and capability or performance constraints.
 - 3. Cost
 - i. Life-cycle cost

- ii. Design-to-cost
- iii. Application of should cost
- 4. Capability or performance
- 5. Delivery or performance-period requirements
- 6. Trade-offs
- 7. Risks
- 8. Acquisition Streamlining
- i. Encourage industry participation by using draft solicitations, conferences and other means of stimulating industry involvement.
- ii. Select and tailor only the necessary and cost-effective requirements.
- iii. State the time frame for identifying which of the standards and specification shall become mandatory.

b. Plan of Action

- 1. Sources
- 2. Competition
- 3. Source-selection procedures
- 4. Contracting considerations
- 5. Budgeting and funding
- 6. Product or service descriptions
- 7. Priorities, allocations, and allotments
- 8. Contractor versus government performance
- 9. Inherently governmental functions
- 10. Management information requirements
- 11. Make or buy

- 12. Test and Evaluation
- 13. Logistics considerations
- 14. Government-furnished property
- 15. Government-furnished information
- 16. Environmental and energy conservation objectives
- 17. Security considerations
- 18. Contract administration
- 19. Other considerations
- 20. Milestones for the acquisition cycle
- 21. Identification of participants in the acquisition plan preparation

These are the basic contents of the acquisition plan as prescribed under the FAR and DFARS, which is applicable to any kind or type of acquisition. The FAR provides for applicable instructions on the accomplishment of the contents of the acquisition plan. Essentially, the contents as prescribed, does provide more than adequate information for an acquisition plan to demonstrate that the following are accomplished:

- 1. The government will get what it needs, when it is needed, within the established cost objectives;
 - 2. Sufficient and appropriate funds are available and obtainable;
 - 3. A sound and equitable business arrangement is planned;
 - 4. Risks due to concurrent development/production are managed;
 - 5. The national goals of competition and small business utilization are supported; and,
 - 6. The systems/equipment will be supportable when fielded.

d. A Checklist for Planners

Defense acquisition planning in the US provides for a structured and well-defined process for accomplishing the plan and obtaining its approval. However, having a checklist can be very helpful in facilitating its completion. Below are checklists for those who prepare the plan and its reviewers (1: pp. 14-15).

1. For Preparers:

- Hold a kickoff meeting with the program office team
- Plan first, and then document the plan the small stuff becomes easier when the big strategy is figured out.
- Get the help of experts on the staff when you need it.
- Give a clear overall non-technical description of the program. Expect those who will read the plan to be totally unfamiliar with your program.
- Ensure the plan is consistent with the strategy and highlight the difference.
- Include the disposition of recommendations in appropriate portions of the plan.
- Use spell check programs and have your team perform a thorough quality check.
 - Use a guide in preparing the plan.
- Use the team to accomplish regulatory research needed to fully understand the acquisition planning issues to be included in the plan.
- Explain in sufficient detail any program or contract funding changes.
 - Don't leave out discussion of contract options.
- Don't forget that acronyms are meaningless for those who don't know what they mean.
 - Indicate the reasons for a topic that is non-applicable.

- Don't start the consultation phase until you and your team feel the plan is truly complete.

2. For Reviewers

- Provide comments that are specific and can be acted upon.
- Call the program manager, contracting officer, or central focal point for acquisition plans if you have questions during the review.
- Clearly identify the page, section, paragraph, and line to which your comment applies.
 - Give complete regulation cites when applicable.
- Provide specific alternative wording if original phrase is unclear or ambiguous.
 - Remember that the guide is not a directive.
- Remember that your goal is to help the program manager put together a successful acquisition program plan.

E. CHAPTER SUMMARY

This chapter provided a general description of the systems, processes, and organization of the defense acquisition establishments of Germany, United Kingdom and the United States. It also described acquisition planning as practiced in the US defense establishment as prescribed by FAR part 7.105. What one can conclude from the literature review for this chapter is that the defense acquisition systems of the three countries are intended to provide their respective military with defense systems that would give their armed forces superiority. This is especially true in the case of the US military, which for a long time advocated revolutionary acquisition and development.

This chapter also found that there is a growing trend among the countries studied to move towards evolutionary acquisition and this is embodied in their new guidance or regulations. This trend is obviously being driven by rising acquisition costs, the desire to rapidly provide the capability to the warfighter that meets the warfighter needs, and

provide the best value for the government. The three countries also commonly use Integrated Product or Project Teams (IPTs) in their acquisition programs.

Defense acquisition planning has been deemed important enough to be included in the Federal Acquisition Regulations (FAR). The FAR provides enough guidance or instructions to prepare and accomplish an acquisition plan as soon as the agency need is identified. However, the planning requirements could become too complex, particularly for major defense acquisitions, with some estimates having over 100 plans developed for major acquisitions (36: p. 14).

The next chapter will present an analysis of acquisition processes in the AFP visà-vis that of other countries, giving particular emphasis on acquisition planning. It will identify the issues relating to acquisition planning in the AFP and provide key elements that would constitute an effective acquisition plan. THIS PAGE INTENTIONALLY LEFT BLANK

IV. ANALYSIS OF THE AFP ACQUISITION PLANNING

A. INTRODUCTION

This chapter presents an analysis of AFP acquisition planning vis-à-vis that of the US defense establishment. It also provides a comparative analysis of the acquisition system and processes in the Philippine military with that of the US and other countries earlier presented in the preceding chapters. It discusses the major issues relating to the policies, rules, and regulations that govern the conduct of planning for the AFPMP acquisitions and examines the key elements, factors and characteristics that can lead to more effective acquisition planning for the AFPMP based on earlier discussions in this research paper.

B. ANALYSIS OF THE AFP ACQUISITION SYSTEM AND PROCESS

1. Background

The long period of dependence of the AFP on US military aid immensely affected the development of its defense acquisition system, particularly for major defense programs. Acquisition processes for MDAPs were also correspondingly inadequate. Without the enactment of the AFP Modernization Law, the AFP acquisition system and processes would have remained undeveloped. Before the AFP Modernization Law, almost all acquisitions of the AFP were for operating, maintenance and support activities except for a few and far between equipment acquisitions.

2. AFP Acquisition Organizational Structure

With the AFP Modernization Law, the defense establishment had to institute an acquisition system, with the attendant processes, to address the capability development programs for the AFPMP. However, the review of the AFP acquisition system and the processes that go with it reveal that the system doesn't have a sound organizational structure to support AFPMP acquisitions. In fact, the Philippine defense establishment has no formalized acquisition organization that focuses on MDAPs. What the defense department has are ad hoc bodies or entities to temporarily address the requirements of the AFPMP, which is one of the reasons why decisions are centralized for MDAPs.

The PMTs start and end the AFPMP equipment acquisition process but are hindered by the fact that, in practice, members perform their duties on a collateral basis, even though SOP No. 8 provides for it being a primary duty. They also don't have any meaningful participation during the contract negotiation stage. Second, there are only a few members in the team when one considers that the capability development programs are major defense programs of the AFP. Third, there's a need to professionalize the AFP's personnel for acquisitions, but the DND should first have an acquisition workforce. The Department of Defense doesn't have any for major defense programs. The DND also doesn't have contracting officers to formulate and administer contracts. Presently, the AFP has two contracting officers who have the necessary education to handle contracts but there is still no organization for them to carry out such duties. Fifth, there is no test and evaluation (T & E) organization for independent testing of the weapon systems being acquired or procured. What the AFP does is either get personnel from technical units or research and development offices to conduct testing and evaluation or to have the technical member of the PMT do the testing and evaluation management of the program. Again this goes back to whether the AFP has the personnel who have T & E training. The fact is the AFP has not gone far in the conduct of training, not only for PMT members, but also for other prospective members of the acquisition workforce like contracting specialists and T & E personnel.

The defense acquisition system and processes are still evolving but the need to have an acquisition organization must be addressed immediately. Commander Montañez recommended this in his thesis when he said that the Defense Modernization Office (DMO) should be upgraded to the Defense Acquisition Office responsible for all acquisition programs of the defense department, not only for the AFPMP (28, p. 60). The process of establishing a defense acquisition organization will be a hard and tedious one but it has to start as soon as possible.

3. Requirements Generation

Requirements for the AFPMP were generated even before the AFP Modernization Law was enacted but the structure for requirements generation for acquisition programs are not well established. The AFP's dependence on the US for military hardware for decades definitely impacted development of this process. If we compare the AFP's requirements generation process with that of other countries, we can see the limitations and inadequacy of the AFP process. This poses a problem when the AFPMP should have been completed and the DND and AFP may have to go through another round of modernization law enactment. At present, all that the AFP is doing is prioritizing its programmed acquisitions due to fund constraints. The whole program itself has only one fourth of its original funds available in real terms because the laws relating to it didn't apply a base year for funding and never accounted for inflation. In spite of all this, the AFP is still expected to perform more missions that it can actually accomplish.

4. Statutes, Guidelines, Rules, and Regulations

The laws, guidelines, rules, and regulations pertaining to the AFPMP are limited to contract formation, while remaining silent after contract award (28: p. 37). This was addressed in the thesis of Commander Cesar Taccad. However, to date, there is still no single regulation that provides a complete and definitive guidance for major system acquisitions required under the AFPMP. The fragmented and numerous statutes, rules and regulations on acquisition continue to hamper the implementation of the AFPMP.

Commander Montañez' recommendation to establish contracting officer positions in the AFP to enable continuity in the acquisition process has not been addressed by the defense leadership so far. Corollary to this should be the creation of other acquisition or contracting positions to assist the contracting officer in his job, and the necessary training and education attendant to performing such positions.

4. The AFPMP Acquisition Process

The acquisition process for the AFPMP is adequate for the purpose of procuring a weapon system or equipment that's already in use by at least two other countries' military or being used in the country of origin. The AFPMP acquisition process doesn't have to deal with concept exploration and system development, but only with the manufacture of systems already in the market or procurement of an existing system. Unlike the UK, Germany and the US, which usually wants to acquire products that have not yet been developed and produced to give their armed forces superiority, the AFP only has to find something satisfactory "off-the-shelf."

Still, due to the intricacies of the laws, rules and regulations, it takes 44 weeks, barring any problems, to complete the acquisition process from project identification to implementation. The PMT's participation is on the end points of the process, project identification and contract implementation. Its members are not involved in the contract negotiation phase. In Chapters II, we found that the CORs and BEPs undergo four reviews and validations before final approval by the SND. The number of reviews and validations of the CORs and BEPs can certainly be reduced without necessarily sacrificing their validity. GHQ can perform the review and validation of the CORs and BEPs jointly with the DND, instead of reviewing them separately. DND may also delegate the responsibility of the review and validation to GHQ while retaining oversight functions.

Acquisition projects have different costs associated with them and to further streamline the acquisition process, categorizing acquisition projects may be resorted to based on projected project expenditure with corresponding decision authorities designated for each category so that it is not always the SND who decides for all capability development projects.

C. ISSUES RELATING TO AFP ACQUISITION PLANNING

One of the main issues affecting acquisition planning is that it is not a requirement in the AFP even for the capability development programs of the AFPMP. However, many of the elements of an acquisition plan included in the FAR format are being performed by the PMTs, but not in a comprehensive and structured manner. Yet, there is no overall plan that could provide the overall strategy for accomplishing an acquisition. What the AFPMP requirement provides for is the BEP, which is actually equivalent to a source selection plan in US acquisitions. However, this is only one element of an acquisition plan among many. The COR, which defines the operational and technical requirements of the equipment or weapon system to be procured, form the basis of an acquisition and is the other document required prior to the conduct of contract negotiation. Nowhere in the equipment acquisition process is there mention of an acquisition plan required by higher headquarters. Acquisition plans should be a requirement for all AFPMP projects.

In the thesis of Mark E. St. Moritz, he reiterated that effective acquisition planning is vital to the success of any business undertaking, particularly in the acquisition of major weapon systems within the defense department. Considering that there are no coherent regulations pertaining to acquisition in the DND, one can argue that sound acquisition planning is the key to successful AFP acquisition programs (38: p. 1). In the AFP, however, acquisition planning is performed in a sporadic and fragmented manner and no formal procedures or processes have been developed except for the development of the COR, BEP risk planning and a few other elements of an acquisition plan.

Effective acquisition planning is highly dependent on the interaction and experience of the personnel involved in an acquisition but the Philippine defense establishment has no acquisition workforce that has the experience or training to perform acquisition planning for major acquisition programs like what is required under the capability development programs of the AFPMP. Without an experienced acquisition workforce, the absence of a formal acquisition planning process could lead to situations of inadequate and ineffective procurement of a weapon system or equipment. This is a very serious issue and can only be addressed through training and education that will take time to bear fruit. The AFP had already started the process of educating and training its personnel, but it will take time to reap its benefits. Contracting officers perform a crucial role in acquisition planning but currently, there are only two qualified contracting officers in the AFP.

Corollary to acquisition planning is the development of an acquisition strategy, which provides the framework for an acquisition. The development of an acquisition strategy has been mentioned in some of the DND and AFP regulations relating to the AFPMP but it is not mentioned in the SOP on project management teams for the AFPMP. The acquisition strategy provides the overall strategy for managing an acquisition but responsibility for its development is not clear. The PMT is not responsible for it. In a major acquisition in the US, a program could not proceed until an acquisition strategy has been approved, but in the case of the AFPMP, this isn't clear. This issue has to be addressed as well.

Not all of the programs in the AFPMP will be considered MDAPs and so another issue is that the DND has to define acquisition categories to better manage its acquisitions for the AFPMP. Categorizing acquisition projects could greatly make acquisition planning for the AFPMP more effective and efficient. At the moment, there is still no regulation regarding this matter.

Another major issue is the lack of an acquisition organization in the DND/AFP. In the review of literature, all the other countries studied had acquisition organizations and found them performing a crucial role in the defense organization. In the DND, there are procurement organizations but are focused more on logistics, operating and maintenance requirements and not on acquisition of weapon systems. Having an acquisition organization in the Philippine defense establishment will ensure that the mission needs of the warfighters would be addressed even though AFP acquisitions are for developed systems already.

D. KEY ELEMENTS OF AN EFFECTIVE ACQUISITION PLAN

The key to an effective acquisition plan is a good acquisition strategy, which will guide the planners with an overall strategy to manage the plan. This is a top-level description of the acquisition that should be considered and approved by the decision authority prior to proceeding with an acquisition. The strategy provides the basis for more detailed planning and gives the decision-makers to assess whether an acquisition makes good business sense, effectively implements laws and policies, and reflects the defense leadership's priorities.

Every acquisition is unique and has different requirements. This suggests that no two plans are the same even for the acquisition of similar systems. As discussed earlier, acquisitions for the AFPMP have an inherent difference with that of the other countries mentioned in this study in that projects identified for the AFPMP are developed systems while that of the US, UK and Germany are mostly development programs. Thus, some of the elements of an acquisition plan under the FAR may not be applicable to the AFP. Nevertheless, the FAR format provides a comprehensive document that captures all the necessary requirements of an acquisition and does serve as a template of an effective acquisition plan. The key elements of an effective acquisition plan are:

- Statement of need this introduces the plan through a brief statement of the need and provides the basis for the acquisition. It should provide a history of the equipment to be replaced.
- Applicable conditions states all the significant conditions affecting the acquisition to include requirements compatibility and cost, schedule, and capability or performance constraints.
- Capability or performance requirements this specifies the performance features or capabilities required of the system being acquired.
- Delivery or performance-period requirements this should describe the basis for establishing delivery or performance requirements including reasons for urgency and justifications for not having open competition.
- Participants in the acquisition plan this gives the people involved in the plan preparation and the responsibilities of each. Contact information should be included.
- Cost Cost goals should be established for the acquisition and must have a rationale to support them. Cost concepts used should be included (i.e. total ownership cost, should-cost).
- Budgeting and funding this should state how estimates were developed and should describe pricing methodology (i.e. parametric pricing, historical, catalogue, etc.). It should also include funding by appropriation and fiscal year.
 - Alternatives this element should discuss feasible acquisition alternatives.
- Trade-offs this pertains to cost/schedule/performance trade-offs and affordability will play a big part in the process.
- Risks this should discuss cost, schedule and technical risks and the plan to manage such risks.
- Milestone charts this should include a chart depicting the acquisition objectives including those for requirements approval, submission of specifications,

contract award, updates that should be in conjunction with decision reviews, and logistics milestones.

- Business considerations this should includes inter-agency cooperation, which is quite important in AFP acquisitions where other agencies have a say in the acquisition as is counter-trade and offsets. Other business considerations are warranties, government-furnished property or information, acquisition streamlining, security considerations, make or buy decisions, energy and environmental considerations, the Self-Reliant Defense Program (SRDP) considerations, and others relevant to the plan.
- Technical considerations should discuss value engineering to reduce costs not only in production but also in the maintenance and support of the weapon system. Other technical considerations are system safety, electromagnetic effects, frequency allocations and assignments, reliability, maintainability and quality assurance, conformance to open systems.
- Test and evaluation this is actually a part of the technical consideration but it is quite important that it needs to be treated as a special consideration. This should describe the test program of the contractor and the government although it is focused on operational testing and not development testing in the case of the AFPMP.
- Logistics consideration it describes the contractor or agency support both initially and over the life of the system. It should also describe the Integrated Logistics Planning to date including references to an approved Integrated Logistics Support (ILS) plan. Major components, subsystems, and spare parts of the equipment should be identified and it should also describe how competition for these components, subsystems, and spare parts would be sought, promoted and sustained.
- Plan of action for each contract some projects may have more than one contract and the project team should consider the item being acquired, the estimated cost, the prospective sources, competition, source selection procedures, and contracting considerations, particularly contract administration.

E. CHAPTER SUMMARY

The chapter provided an analysis of the acquisition system of the AFP with that of other countries. It showed that the Philippine defense establishment has no acquisition organization for weapon systems acquisition. This has proved to be a major hurdle for the AFP Modernization Program. The lack of a professional acquisition workforce is also a detriment and the education and training necessary to address these problems are enormous. The shortcomings of the defense structure are being addressed and training of personnel who will be involved in the acquisition process continues. However, an acquisition organization for defense acquisition programs should be instituted as soon as possible to address all the acquisition issues described in this chapter.

The chapter also described the key elements of an effective acquisition plan with the acquisition strategy as guide to its preparation. Acquisition plans are needed because planning is the key to success of an acquisition and this cannot be underscored enough. However, the AFP still has not required an acquisition plan for its capability development programs under the AFPMP.

The next chapter will present the conclusions and recommendations of this study.

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V. CONCLUSIONS AND RECOMMENDATIONS

A. INTRODUCTION

This chapter presents the finding and recommendations of the study. The research has so far provided pertinent information and understanding of the AFP Modernization Program and the laws, rules and regulations associated with it. Chapter III reviewed the acquisition systems of the US, UK and Germany and provided an insightful comparison with that of the Philippine defense acquisition system made in Chapter IV. The analytical comparison of the AFP acquisition planning practices with those of the US DoD was also made in Chapter IV.

Chapter IV presented the importance and the need to perform acquisition planning for the AFPMP in order to effectively manage the weapon system acquisition and to establish a logical and systematic approach to address the defense needs or requirement. With the consolidation of the knowledge achieved from the research, this study in now presenting its conclusions and recommendations.

B. CONCLUSIONS

In a lecture on December 12, 2002 by Brigadier General Daryll A. Scott, Deputy Assistant Secretary for Contracting, Office of the Assistant Secretary of the Air Force for Acquisition, emphasized that acquisition planning is the key to the success of an acquisition. Currently, however, the AFP performs planning for its acquisitions under the AFPMP but does so in a fragmented manner.

Based on the data and information presented, analyzed and interpreted in the preceding chapters, following are the conclusions of the study:

- 1. The AFP has no single regulation that deals with acquisition planning. The AFP acquisition system for MDAPs itself is still evolving and developing, too fragmented, and inadequate to address the planning issues associated with the AFP Modernization Program. It is not a requirement under current regulations.
- 2. Acquisition planning as practiced in the AFP is done in a fragmented manner. The elements of an acquisition plan are prepared by the PMTs but not as parts

of an overall plan that establishes a logical and systematic approach to addressing an AFP requirement. Contract administration, for example, is not being addressed in the planning documents and this is a subject of two previous theses by Filipino officers.

- 3. There is a lack of educated and trained personnel for the acquisition of weapon systems who can perform acquisition planning. Presently, there are only two graduates of acquisition and contracting in the AFP although training of project team members is a continuing activity in the AFP to specifically address this need. However, other positions need to be established and filled like contracting officers, contracting specialists, and other acquisition personnel.
- 4. There is no defense acquisition organization that's responsible for defense acquisitions. The SND is almost always the milestone decision authority and this impedes efficiency. Having an acquisition organization would provide a structure that would lead to the establishment and better management of the acquisition systems and processes needed for the AFPMP.
- 5. There are no established acquisition categories for acquisition projects of the AFPMP. This makes for a cumbersome process where the decision authority is almost always the Secretary of National Defense. Having established acquisition categories will make for a more effective and efficient planning process.
- 6. There is still no established education and training program within the Philippine defense establishment that addresses the skill requirements necessary for acquisition personnel to successfully pursue weapon systems acquisitions in the AFP. Thus, planning remains fragmented and sporadically performed.
- 7. PMT membership is supposed to be a primary duty but is treated as a collateral duty in practice. This affects the preparation and development of the CORs, BEPs, and other attendant plans for projects already identified.

C. RECOMMENDATIONS

In view of the above, the following recommendations are provided:

1. Revise the current IGRR to incorporate the conduct of acquisition planning and the preparation of acquisition plans as requirements for all major defense

acquisition programs. With formalized and comprehensive procedures or processes, acquisitions would be more effective in addressing the requirements of the capability development program of the AFPMP.

- 2. Institute formalized and structured education and training programs in the AFP to address the skill requirements for AFP weapon system acquisitions. This was a recommendation of Commander Montañez in his thesis, but needs to be reiterated because of its importance (28: p. 60). In the interim, the DND and AFP should develop enhanced training materials for personnel involved in acquisitions for the AFPMP.
- 3. The Department of National Defense should commission a study to establish a defense acquisition organization that would be responsible for all acquisitions of the defense department, not only for the AFP Modernization Program.
- 4. Revise the IGRR to establish acquisition categories and provide for decision authorities for each category to improve efficiency and effectiveness in the acquisition process for the AFP.
- 5. Properly implement and manage the Project Management Teams. Team members are supposed to be on detached service to the major service modernization office and performing duties of major responsibility. As such, they should be doing their job as PMT members and not performing other collateral duties. Major Service commands must provide better control to ensure that regulations are adhered to with regard to the PMTs.
- 6. Adopt the FAR acquisition plan format as a first step to the preparation of an acquisition plan. Later, develop an acquisition planning guide by the AFPMP Management Office as a standard to be followed by the PMTs.

D. SUMMARY AND REVIEW OF RESEARCH QUESTIONS

1. Primary Research Question

Is acquisition planning as currently practiced in the AFP adequate to meet the requirements of the AFP Modernization Program?

In Chapter II, the study found that the AFP does not prepare an acquisition plan but it does require the preparation of the Circular of Requirements and the Bid and Evaluation Plan by the PMTs. These are fragments of an acquisition plan but are not the plan itself. Even the preparation of an acquisition strategy is not included in the duties and responsibilities of the PMTs and there is no document to show who is responsible for the preparation and approval acquisition strategy although it was part of a number of regulations and manuals.

Considering the importance of the AFPMP projects, it is quite important that a comprehensive acquisition plan be prepared instead of just fragments or parts of a plan in order to ensure a more logical and systematic approach to satisfying a government need. As stated in the study, acquisition planning is key to the success of an acquisition.

The acquisition planning practices of the AFP leaves some of the key elements of an acquisition plan out. One example is the lack of guidance on post-award contract administration. Currently, this is not addressed in acquisition planning. Test and evaluation is also another key element that is not given its due importance although it is part of the BEP. The lack of educated and trained personnel and fragmented laws, rules and regulations are also hampering acquisition planning. Thus, it is evident that acquisition planning practices in the AFP are inadequate to address the requirements of the AFP Modernization Program.

2. First Subsidiary Question

What laws, rules and regulations impact acquisition planning in the AFPMP?

The AFP Modernization Law or Republic Act Number 7898, and Congress' Joint Resolution Number 28 provides the authority for the AFP to plan and obtain its weapon systems and other equipment for its modernization program. But the main document that impact acquisition planning in the AFP is DND Circular Number 1, or the IGRR. The IGRR provide the details on the objectives of the statute and also defines the policies for the implementation of the capability development portion of the program. The most significant issuance that impacts AFP acquisition planning after the IGRR is AFP SOP No. 8, which prescribes the functions, composition, organization, and duties and responsibilities of the PMTs and also prescribes the policies and procedures for the other PMTs. The PMTs are the ones actually doing the planning with their preparation of the CORs and the BEPs. They are also responsible for the risk management plan and are

required to perform a number of other functions. The PMTs perform the beginning and end of acquisition planning in the AFP because they implement the contract after its award, even though they have no significant role in contract negotiation. All the other laws, rules and regulations were mentioned in Chapter II have varying affects on AFP acquisition planning, but not as much as the IGRR and SOP No. 8.

3. Second Subsidiary Question

How is acquisition planning practiced in the AFP and how does it differ from acquisition planning for the AFPMP?

Acquisition planning in the AFP starts from the Major Services through the identification of a mission need and the corresponding requirements through its respective major service weapons board. The requirements are then forwarded to the AFP weapons board for review and validation. This is recommended to the Chief of Staff, AFP who subsequently endorses the requirement to the SND. Once it is approved, the acquisition begins and planning for the acquisition starts. However, the US government normally provides the requirements through FMS until the abrogation of the US Bases Treaty.

The former process is quite different now with the advent of the AFP Modernization Law. The acquisition planning process is more structured than before and continues to be developed and improved. As mentioned earlier, the project is identified by the major service, which also prepares the required documents, the COR and the BEP. The PMTs are required to conduct market research and prepare other plans. However, this is as far as the acquisition planning is done in the AFP. It is still fragmented with no comprehensive acquisition plan required from the PMTs except for the COR and the BEP.

4. Third Subsidiary Question

What are the attendant problems associated with current acquisition planning practices and how does it affect the AFPMP?

There is no requirement for an acquisition plan for the AFPMP. The current planning practices are fragmented and the requirements are not part of a structured and formal acquisition plan. There is a lack of skilled workforce or personnel who can

conduct acquisition planning for the AFP. Also, the absence of an acquisition organization impacts acquisition planning. Other problems noted in the conclusions of this study affect the AFPMP negatively.

5. Fourth Subsidiary Question

How is acquisition planning practiced in the US DoD?

The US defense establishment has been performing acquisition planning since 1984. As such, it has already developed its acquisition planning process as described in Chapter III. From requirements generation to actual production and fielding, the US DoD has a much more mature planning process than the Philippines. It is even a part of the FAR (Part 7) and provides the format to prepare an acquisition plan. The services also have their respective planning guides to help the Program Managers prepare an effective plan. The US DoD has the organizational structure, policies and skilled personnel to do acquisition plans although they have their own problems. Still, their regulations on acquisition planning provide them with enough guidance to prepare an effective plan. They also have established acquisition categories that provide for more efficiency in the planning process.

6. Fifth Subsidiary Question

What changes, if any, can be made to appropriate laws and regulations to make acquisition planning more responsive to the requirements of the AFPMP?

As stated in the recommendations portion of this chapter, acquisition plans should be made a requirement and incorporated in the IGRR through a revision. Since the majority of the capability development projects of the AFPMP could be considered MDAPs, having an acquisition plan will significantly improve its success. Adopting the FAR acquisition plan format will have to be included in the IGRR as well. The AFP can then modify it later to fit an acquisition project. Another recommendation is the establishment of acquisition categories by the SND to improve efficiencies in the planning process. This could be done by a separate document or through an amendment to the IGRR. Finally, DND can formulate a comprehensive defense acquisition regulation (DAR) that will cover all aspects of an acquisition plan from requirements definition, project identification, and contract negotiation to procurement and disposal.

E. RECOMMENDED AREAS FOR FURTHER RESEARCH

Some suggested areas for further research include:

- 1. A study on the development of an acquisition plan for major weapon systems.
- 2. The importance of Information Technology (IT) tools to improve acquisition planning in the AFP.
- 3. The need for IT tools to reduce cycle time in AFP Modernization Program acquisitions.
- 4. A study on the appropriate acquisition organization for the Department of National Defense.

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