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**A CONSCRIPT MILITARY FORCE AS A CREDIBLE DEFENSE SYSTEM FOR A
SMALL NATION: THE CASE OF SINGAPORE AND TAIWAN**

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A thesis presented to the Faculty of the U.S. Army
Command and General Staff College in partial
fulfillment of the requirements for the
degree

MASTER OF MILITARY ART AND SCIENCE

by

DANIEL ONG BOON HWEE, MAJ, SAF
B. Soc. Sc. (ECONS) Hons, National University of
Singapore, 1984

Fort Leavenworth, Kansas
1988

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19. ABSTRACT (Continued)

The conscript system is currently used by a large number of countries, including the majority of small nations. This study examines the appropriateness and effectiveness of a conscript military force as a credible defense system for small countries.

This study analyzes the factors which caused Singapore and Taiwan to have a conscript military force and the effectiveness of those conscript systems. The factors include geography, threat assessment, defense policy, historical circumstances, population/society, and economic considerations. The analysis of the effectiveness of the conscript system covers four military criteria and four non-military criteria which relate to the operational readiness of the armed forces and the contribution of the military system to internal national objectives.

The study shows that given the inherent factors and constraints, the conscript system is suitable in providing Singapore and Taiwan with the type of military force required for their defense needs. The conscript system has been effective in contributing to the military efficiency of the armed forces as well as in supporting other non-military national internal objectives.

The study provides insights into the rationale for a small country's adoption of a conscript system and the effectiveness of the system. It also provides a conceptual framework that will facilitate analysis of the choice and effectiveness of a conscript system.

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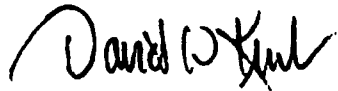
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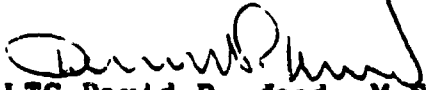
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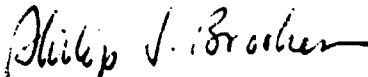
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The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

ABSTRACT

A CONSCRIPT MILITARY FORCE AS A CREDIBLE DEFENSE SYSTEM FOR A SMALL NATION: THE CASE OF SINGAPORE AND TAIWAN: by Major Daniel Ong Soon Hwee, Singapore Armed Forces, 152 pages.

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(Force Force 4th)
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CHAPTER ONE

INTRODUCTION

BACKGROUND

The germinal concept of a conscript force predates the formation of modern armies. As early as communities existed, some members within a community were obliged to share in the common defense of its security. Modern conscript armies are however a more recent development, beginning with the French revolutionary *levee en masse* organised by Carnot in the late eighteenth century.

Today, the conscript system is used by a significantly large number of countries. Of the 143 countries listed in The Military Balance 1986-87, 60% of the world's armed forces are based on a conscript system.¹ These include large as well as small nations, communist as well as democratic countries, developed as well as less-developed economies, and countries from different continents with very diverse historical, geographical, cultural, economic, and political backgrounds.

It is noteworthy that of the 83 countries that have a conscript system, small countries make up 57% (47 countries). The majority of these small countries are developing or less-developed economies, generally referred to as Third or Fourth World countries. Most of these countries are newly independent states, having emerged only in the post World War II period.

The focus of this thesis is the conscript system in small nations.

THE CONSCRIPT SYSTEM

A conscript system has the following key features:

a. The obligation for every fit male (in some cases, females included) to be liable to serve a period of full-time military service, ranging from 6 to 60 months. The conscripts may be drafted on a universal or selective basis.

b. The conscripts, on completion of the required period of military service, remain in the military force for an extended period as reservists. During this period, the reservists are liable to be mobilized and are usually required to undergo some refresher or further training at regular intervals to maintain their military skills.

c. The system necessarily involves a cadre of regular volunteers (NCOs and officers) who provide the long-term leadership. The importance of these regulars in a conscript system cannot be underestimated - it is therefore logical that a

conscript military force is usually referred to as a cadre/conscript system. For simplification, this thesis will use the term "conscript system."

Most conscript military forces have therefore three components: the regulars, the conscripts and the reservists. This is sometime described as a three-tier defense structure.

Besides the conscript system, two other forms of military service exist among the armed forces of the world. They are the militia and the all-volunteer armed forces.

The best example of a militia system is that of the Swiss Militia Army, and it is not surprising that the militia system is often referred to as the "Swiss Model."² The militia and the conscript force are similar in that the bulk of their strength stems from the entire citizenry. In this sense, both the militia and the conscript force are sometime referred to as the "citizen army," although the term is more closely linked to the militia than to the conscript force.

There are however two key differences between a militia system (as represented by the Swiss Model) and a conscript system. First, a conscript system requires the drafted soldiers to serve a compulsory period of full-time military service, while the militia system usually involves only a relatively short period of basic training but an obligation of the militia soldiers to remain in the defense force for the entire period of the citizens' active life.³ This means that a conscript system provides for a larger standing force (comprising predominantly

full-time conscripts) than a militia force which maintains only a small regular cadre during peacetime.⁴ Between the two systems, a conscript military force is therefore relatively more prepared with a substantial ready force to cope with a sudden immediate external threat. This also implies that a militia force is relatively more dependent on the mobilization of its manpower in order for it to be operationally effective. The dependence on the mobilization of its reserve force is certainly true also of a conscript force in the event of a serious external threat, but the existence of a larger standing force provides some measure of buffer against surprise enemy attacks. Second, the part-time militia officers play a more significant role in the leadership structure as compared to a conscript force, which is usually characterized by having the regular officers provide the senior-level leadership while the conscript and reservist officers fill only the junior-level leadership positions.

Although three conceptually separate forms of military service exist, in reality most military forces in the world have a combination of the various systems. Many countries that base their main peacetime defense strength on an all-volunteer force have within their defense structure a back-up of a reserve force and/or a pre-planned arrangement for drafting when the need arises. Therefore, in a sense, most armed forces use mixed systems of military service.

Moreover, the form of conscript system varies among the countries which have a conscript military force. Some countries

like Israel and Singapore, while having a compulsory period of full-time conscript service, at the same time require the citizen-soldiers to subsequently serve a relatively long period of reserve service. The reservist officers are also more integrated into the leadership structure of the two armed forces than most other conscript forces. In these regards, the conscript system in the two countries resembles the militia system of the Swiss Model. Therefore, in discussing the conscript system it is relevant to note that not all conscript forces have the same features. In fact, many conscript systems are "hybrids" of the conscript and militia systems in varying degree. The key distinguishing feature that is used in this thesis to classify countries with a conscript system is the requirement for conscripts in those countries to serve a compulsory period of full-time military service.

THE DEFENSE OF A SMALL COUNTRY

For any nation, large or small, the capability to defend its sovereignty against external threats is the basic foundation for its independence. For a small country, the need for a credible defense capability is arguably more crucial. Small countries are by their mere size more vulnerable, especially those small nations that are situated at strategic geographical locations or in politically volatile regions. Given their vulnerability, a viable defense capability is often a necessary pre-condition for small nations' progress or even survival.

Sound foreign and domestic policies are also important factors for the stability of small developing nations. But, as history has shown, the inability to deter and to repel aggression has brought an end to many small developing countries. To the contrary, many successful small nations are countries that take their defense seriously.

Not only is the need for defense crucial for small countries; newly emergent nations face complicated challenges in their effort to raise a potent defense force. Typically, the defense planners have to work within an environment characterized by serious economic constraints, unstable political and social conditions, a lack of established military organizations, and a quantitative and qualitative manpower shortage.

For a small country, the main purpose in maintaining an armed force is to deter and if necessary, to repel aggression against it. Small nations are not likely to aim at power projection or territorial expansion by use of their military might. For many small nations, a conscript system might be the only means through which they can raise an armed force large enough to provide a credible deterrent. Besides meeting the security requirement, the conscript system is often used by newly independent nations to achieve socialization and nation-building goals. In some countries, conscription is also used as a form of internal control or internal security measures. Small nations therefore adopt systems of military

service to meet various demands, both external and internal in nature.

Defense exacts both social and economic costs on a society, quantifiable as well as intangible. A standing armed force incurs direct expenditure on its upkeep. As defense requires significant commitment of manpower and finances, there is also the unseen cost (known as "opportunity cost" in economic terms) to the society in terms of the possible alternative utilization of the resources. This highlights the perennial 'guns vs butter' issue.

Besides economic considerations, the use of a conscript system also encounters moral, social, and philosophical questions. The element of compulsion inherent in a conscript system is sometimes criticized as being an encroachment of the freedom and civil rights of a nation's citizens. Any country, particularly a small nation with very limited manpower as well as financial resources needs to consciously weigh benefits and costs to arrive at the most appropriate and attainable type of military force for its defense. Therefore, at the risk of oversimplification, we may summarize that a suitable military force for a country is one that would provide it with effective security at the "price" it can afford.

Two significant issues thus emerge. First, given the choice of different forms of military service, why do so many small countries base their defense on a predominantly conscript system? Second, is the conscript system effective in providing

the countries with a credible defense? The first issue concerns the factors which influence the choice or continued maintenance of a conscript system i.e., the "causal" aspect. The second issue relates to the effectiveness of the conscript system and its impact on the society, i.e., the "effect" aspect. The two issues, though separate, are closely related. An analysis of both these aspects of a conscript system in the context of small nations involves not only military considerations but also economic, social and political factors.

PURPOSE/RESEARCH OBJECTIVES

This paper will examine the appropriateness and effectiveness of a conscript system of military service in providing small countries with a credible defense capability. The paper will be a case study of two small nations, Singapore and Taiwan,³ which have a rather similar conscript system of military force. The author will analyze the reasons for the two countries' choice of a conscript system as well as the effectiveness and societal impact of such a military force.

The research aims to answer the following questions:

- (1) What factors inherent in Singapore and Taiwan caused them to have a conscript military force?
- (2) Is the conscript military force an effective system for the two countries?

At present, there are not many analytical studies done on the military systems in small countries.⁴ This paper will

collate concepts and ideas on the conscript system found in relevant literature and relate them to the context of small nations. Through the comparative study of Singapore and Taiwan, the author will gain insights into the military systems of small nations and develop a conceptual framework that may facilitate subsequent analysis of the choice and effectiveness of a conscript system.

LIMITATIONS

The first difficulty encountered in undertaking this thesis is the definition of terms. In the literature, terms such as professional, conscript, militia and citizen armies are accorded various subtly different meanings. Militia, citizen army and conscript force are at times used interchangeably. To further complicate matters, since most armed forces in the world are in reality mixed systems, terms such as cadre/conscript system, professionals with militia reserve, and volunteer conscription can be found in the literature. For simplification, the author will consistently use the term "all-volunteer," "conscript," and "militia" to refer to the three primary forms of military service described earlier. Systems involving combinations or modifications of these three primary systems will be discussed with necessary qualification or explanation.

Second, in referring to countries or groups of countries, there is no one universally accepted meaning of classifications like Third World countries, small countries and less-developed

countries. Not only is there no consensus on a common classification, the countries themselves, however they are grouped, have often very diverse and unique social, economic, historical and political situations. To facilitate research and presentation of this thesis, some consistent, but at times arbitrary, definitions are required. For this paper, references made to countries as First, Second, Third or Fourth World will follow the classification in an article by Leslie Wolf-Phillips, "Why Third World?: Origin, Definition and Usage." The term "small nations" is used in the thesis as referring to countries with an area of less than 100,000 sq km or a population of less than ten million.

Third, military data for various countries are reported differently by different sources of reference. To be consistent, where military figures are compared among countries, data provided by The Military Balance 1986-87 will be used.

Last, and the most significant research difficulty in this paper, concerns the definition and measurement of effectiveness of a conscript system. Any useful measurement of effectiveness of a military force must go beyond its military aspect to include its positive and negative effect on the social, political and economic aspects of the country. Not only are there no available applicable criteria for measuring "effectiveness," any such criteria suggested may be challenged as most of the costs and benefits to be analyzed are relatively unquantifiable. However, such a set of criteria is useful to the thesis in

analyzing the conscript system in small nations. A proposed model for measuring the effectiveness of a conscript system will be used in Chapter Five, and the author will address the rationale for the criteria used and the results of their application.

DEFINITION OF TERMS

It is necessary to define common terms that will be used to describe the various components of the military forces. For consistency, these terms will be used in the definitions as discussed below throughout the paper.

"Conscripts" is used to refer to drafted soldiers who are serving the required period of full-time compulsory conscript service.

"Reservists" is used to refer to soldiers who having completed the conscript service, form part of the reserve component of the total armed forces and who are liable to be mobilized when required.

"Regulars" is used to refer to volunteers who are in the armed forces as their choice of career. Regulars may be ex-conscripts who remain in the military service or they may be conscripts who while serving their conscript service, volunteer to serve in the military forces for a period longer than their required service. Regulars also include soldiers who are not liable to be conscripted (e.g. non-citizens), but who volunteer to serve in the military force as a career.

"Active" is used to describe forces or units that comprise regulars and conscripts.

"Reserve" is used to describe forces or units that are made up of reservists.

THESIS FORMAT

The study is organized as outlined below. This chapter serves as an introduction to the work as a whole. It defines the issues and the scope of the research.

Chapter Two provides a survey of literature used in the research. The literature survey is divided into the following sub-topics:

- a. Systems of military service.
- b. The conscript system.
- c. The conscript system and small nations.
- d. The military forces of Singapore and Taiwan.

Chapter Three focuses on the military systems of Singapore and Taiwan, explaining their key features, similarities and differences. It also provides an overview of the relevant political, social, economic, historical and geographical aspects of the two countries. The chapter acts as a basis for subsequent analysis of the military systems in the two countries.

Chapter Four examines the factors influencing Singapore and Taiwan in their decision to have a conscript system of military service. The comparative study of the two countries is done using a proposed model for analysis.

Chapter Five is devoted to an analysis of the effectiveness of the conscript system for Singapore and Taiwan. It utilizes a proposed set of criteria that includes military as well as non-military considerations.

Chapter Six, the conclusion of this work, summarizes the findings of the research. It discusses the possible application of the conclusions of the case study of Singapore and Taiwan to a wider context of small nations in general.

CONCLUSION

Any attempt to draw generalizations from a case study of two countries and to make them applicable to a collection of countries with diverse security needs as well as differing historical, geographical, social, economic and political environments is subject to criticism. However, to the extent that this work provides an insight to the appropriateness and effectiveness of the conscript system for small nations, it will be useful in enhancing the knowledge of a military service system that is being used by the majority of the armed forces in the world.

ENDNOTES

* The International Institute for Strategic Studies, The Military Balance 1986-87, (London: The International Institute for Strategic Studies, 1986).

* A good discussion on the Swiss defense system can be found in M.R.D. Foot, Men In Uniform: Military Manpower in Modern Industrial Societies (New York: Praeger, 1960), 63-71.

* In the Swiss Militia system, all fit male citizens are required to complete 17 weeks of compulsory recruit training followed by reservist training of three weeks per year over a period of eight years. The reservists are liable to be mobilized until the age of 50.

* The regulars form only about 0.25% of the total strength of the Swiss Army.

* Taiwan is also known as the Republic of China (ROC) and Formosa. For convenience, it will be referred to as Taiwan throughout the paper.

* The bulk of available literature concerning the military in Third World countries tends to focus on the subject of military governments, militarism, military elites, and military-civil relations. Those topics are outside the scope of this research.

* The reference to countries in the context of a "four-world" classification is widely used in journalistic and academic writings. Leslie Wolf-Phillips in his article, "Why Third World?: Origin, Definition and Usage," Third World Quarterly (October 1987) provides a convenient listing of countries under the categories of "First, Second, Third and Fourth Worlds." The classification is adequate for the purpose of this research. The listing also provides useful data on population, area and GNP of each country, based on World Development Report 1987.

CHAPTER TWO

SURVEY OF LITERATURE

INTRODUCTION

The literature survey conducted in this chapter will move from general to specific. The chapter is divided into the following sub-topics:

- a. Systems of military service.
- b. The conscript system.
- c. The conscript system and small nations.
- d. The military forces of Singapore and Taiwan.

The chapter begins with a discussion on literature dealing with concepts, ideas and issues pertaining to military service in general. The survey then moves on to works on the conscript system, highlighting its characteristics as well as arguments for and against the use of such a military system. Studies done on the military force of small countries are discussed next. And finally, sources on the defense systems of Singapore and Taiwan are reviewed. This discussion of sources is

not in itself an exhaustive review, and further references on points of detail will be given in the respective chapter endnotes.

SYSTEMS OF MILITARY SERVICE

Available literature on the subject of military systems generally focuses on the following themes: the factors affecting a country's choice of the type of military force, the historical development of the various military systems, the characteristics of the different military systems and the ideology behind the military systems. Though most of these works deal primarily with the American and western military context, several publications are extremely useful in providing a general understanding of the concepts, nature and historical background of the military systems. They prove useful for our analysis of the conscript system in the context of small countries.

Eliot A. Cohen, Citizens and Soldiers - The Dilemmas of Military Service is an excellent starting point for research on military service and related topics. The author uses examples of various countries, including Singapore and Taiwan, to provide a useful cross-sectional view of the military systems prevalent among the world's armed forces. Especially relevant to this thesis is the author's analysis of factors affecting the type of military service adopted by a country and the strengths and weaknesses of the various systems. Cohen concludes that the conscript and the militia systems are likely to be used in small

and medium states which perceive themselves as being threatened, but at the same time as being capable of resistance. On the conscript system, he opines that its great merit is that it produces an effective army, one much larger than a professional force and, if well-led, nearly as proficient, in a far shorter time than the militia system can.

M.R.D. Foot, Men in Uniform is a well-researched comparative analysis of "the ways in which different countries grapple with the problems of military manpower." Like Citizens and Soldiers, this book is an excellent source for basic concepts and comparison among the various military systems. The author discusses the many aspects involved in the determination of a suitable security system as each security problem depends on the intertwining of geography, economics, demography, strategy, politics and history. The author concludes that the militia is the most economical system to maintain, while the ideal system would be that of an all-volunteer force. However, as financial reasons should not be the only ground on which a military system is based, and also as there will probably be an insufficient number of volunteers, a mixed system will generally be most suitable for most nations.

Frederick M. Stern, The Citizen Army advocates that the most efficient and economical form of ground forces is the citizen army. He argues that such a system provides the greatest military power potential at lowest cost and gives new substance to the concept of the citizen's dignity and

responsibility in a democracy. In developing the concepts of the citizen army, the work provides extensive discussion on the military systems of various nations and their historical development. The book is also useful in relating the concepts of military service to the values of a democratic society.

THE CONSCRIPT SYSTEM

There exists a substantial volume of literature on the conscript system and the issue of a draft. Many good works cover a wide range of issues which include national defense concerns, as well as the implications and implementation of the draft policy. Of particular usefulness to this research is the segment of such literature that concerns the debate for and against the draft, from which valuable understanding on pertinent issues and concepts relating to compulsory military service could be gleaned. (However, as the bulk of this available literature dealt with the American and western armies, the differences between those societies and that of small developing countries need to be carefully noted when applying the concepts in analysis.)

A good initial source is found in Current History, Volume 55 (July to December 1968), which is comprised entirely of articles on the draft as related to the American army. Several useful articles are highlighted here. Edward F. Hall, "National Service and the American Tradition," focuses on the idealistic value of national service which in his definition extends beyond

military service. He argues that universal national service involves men at the threshold of maturity in meaningful activities through which they can identify with society, gain a sense of participation in advancing the societal values, and emerge with a conviction of responsibility toward the betterment of the society they live in. John Mitrisson, "The Pros and Cons of a Voluntary Army," compares the merits and demerits of an all-volunteer and a conscript army. The all-volunteer system is said to result in a shortage of manpower to meet the army requirements, and often consists of a lopsided racial composition. This may in turn have adverse effects on security as well as domestic politics. He also suggests that it would be prohibitively expensive to raise an all-volunteer force. However, a conscript system is criticized as being incompatible with a democratic society as it constrains an individual's freedom of choice. But, the article also provides a counter-argument in that the unifying influence of a citizen-soldier concept actually enhances the democratic heritage. Sol Tax, "Society, the Individual and the National Service," deals with the conceptual relation between a man and his society in the context of common defense. While the concept of national service positively relates a man to his society, the involuntary nature of his service somewhat subtracts from its idealistic image. The article also addresses the issue of inequity in a system of selective conscription. When some men are compelled to become soldiers while others are exempted

through whatever means, the system conflicts with the values of liberty and equality.

Martin Anderson (ed), The Military Draft: Selected Readings on Conscription, is another collection of good articles on the various aspects of the military draft including the history, philosophy and economics of conscription. Not only does it give a broad coverage of the subject, but the inclusion of arguments for and against conscription is useful in providing a more balanced view for the researcher. It is impossible and unnecessary to provide a summary of the 42 articles. Of particular relevance to this research are the following articles: B.H. Liddell Hart, "Why Don't We Learn From History?;" D.H. Monro, "Civil Rights and Conscription;" M. Walzer, "Political Alienation and Military Service;" Herman Benkema, "The Social and Political Aspects of Conscription: Europe's Experience;" Edward M. Kennedy, "Inequities in the Draft;" and A.J. Muste, "Conscription and Conscience." In addition, three articles in the book address thoroughly the economic aspect of a conscript system: Adam Smith, "Of the Expense of Defense;" Walter Y. Oi, "The Economic Cost of the Draft;" and Milton Friedman, "Why not a Volunteer Army?"

H.A. Marmion, The Case against a Volunteer Army, is a good supplementary reading on the topic. Although it is written primarily as an argument against a volunteer army, several portions of the book are useful in that they provide a defense of the conscript system as a possible alternative. The author

disagrees with the criticism that compulsive conscription is a concept alien to a free society.

"Conscription, not entirely fair but not entirely foul," The Economist (May 9, 1987), is a useful article that examines the conscript system in various European countries. It discusses the acceptance of conscription among the different countries and the advantages and disadvantages of having such a system.

THE CONSCRIPT SYSTEM AND SMALL NATIONS

As the focus of the survey is narrowed to literature on the conscript system and small nations, there are fewer comprehensive works on the subject. The main sources are articles and reports found in military journals and periodicals. In recent years however, more articles concerning the armed forces of small countries have been published. These articles also seem to be moving from a simply descriptive to a more analytical approach. This may be an indication of a growing interest and awareness concerning the maturing armed forces in the developing small nations. Some of the useful articles are discussed here.

Stephen Geisenheyner, "The Defense of a Small Country," Asian Defence Journal (December 1984) is a good article highlighting the importance for small nations to be seriously concerned with defense and the key issues involved in their military preparations. The author stresses that each nation needs to tailor its defense to the country's geographical

location, political situation, social conditions, economic constraints, and threat assessment. Small countries should aim to create a balanced armed force which includes the provision for a reserve force that could be mobilized on the shortest notice in times of national crisis. The intense preparations for such operational readiness must be done during peacetime because when war arrives, it will be too late to begin shopping for arms and to find and train personnel to man them.

Dan Horowitz, "Strategic Limitations of a Nation in Arms," Armed Forces and Society (Winter 1987) is an excellent article on the three-tier defense system of Israel. It highlights the thorough integration of the various components of the armed forces and their close relationship with society at large. A conscript system backed by an efficient degree of mobilization allows a small nation like Israel to make up for its quantitative inferiority. The reserve component of the armed force bridges the gap between peacetime and wartime manpower requirements, minimizing the redundancy in peacetime strength without compromising the size of its effective wartime strength. The conscript system also enhances the participation of the population in the country's defense effort, thus raising national security consciousness. For a small nation in a hostile strategic environment, the existence of a sizable combat-ready force is of central importance to its survival.

Lucian W. Pye, "Armies in the Process of Political Modernization," The Role of the Military in the Underdeveloped

Countries, discusses the key roles that the armies can play in the developmental process of a newly emergent country. In a transitional society, a properly planned military service can have significant impact on the social, economic and political aspects of the country. The military force accelerates the social acculturation process by providing a high degree of psychological security. It contributes to economic development through providing useful technical skills to those who pass through the military system. Politically, perhaps the most significant impact is that the armed forces acts as a channel for nation-building.

L.A. Zurcher and G. Harris (ed), Supplementary Military Forces: Reserves, Militias, Auxiliaries, discuss the reserves, militia and auxiliary forces of 18 countries which included nine small nations. The authors point out that contemporary definitions of military professionalism based on a perception of the regular western armed forces cannot be readily used in the analysis of a different type of organization found in most Third World countries. An alternative to the "professional image" framework is the notion of the citizen-soldier in which emphasis is placed on the social responsibility of a citizen who is at the same time a soldier called upon to bear arms in the defense of the state. The authors suggest that conscript military service constitutes a hallmark of citizenship, and that it provides an excellent means for learning the national virtues.

THE MILITARY FORCES OF SINGAPORE AND TAIWAN

There are no existing analytical works that focus on the conscript systems of Singapore and Taiwan. However, several very useful references are found in articles and reports from military journals, particularly those with focus on the Asian region. These publications generally cover various aspects of the two countries' military forces including their defense postures, force structure, weapon systems, historical development, current strength and perceived future directions. As for military data on the two countries, the main common sources of reference are: The Military Balance 1986-87, Defense & Foreign Affairs Handbook 1987-88, and John Keegan's World Armies.

A good starting source that provides an overview of the historical development, force structure and defense considerations of Singapore's military forces is The Singapore Armed Forces (1981), published by the Singapore Ministry of Defense. The publication also describes the key features of the conscript system and the inter-relation among the three elements of the military system (i.e., regulars, conscripts and reservists).

Another useful reference published monthly by the Singapore Ministry of Defense is the Pioneer Magazine which provides current news of the Singapore Armed Forces (SAF). Particularly relevant is a July 1987 Special SAF Day issue marking twenty years of the national service (conscript) system

in Singapore. The publication highlights two decades of development of the SAF and the role it has played in the nation-building process of the country. The monthly Asian Defence Journal is an additional external source that gives brief reports on current events in the SAF, as part of the "ASEAN Defence News" section.

Four articles from the Asian Defence Journal are relevant to the research. M. Shuhud Said, in his feature articles on the SAF: "Girding up for Total Attack through Total Defense" (February 1987) and "A Flaming Sword in the Righteous Cause of National Survival" (June 1987), provides a useful examination of Singapore's defense philosophy, the build-up of the SAF, and its organizational structure. S. Bilveer, "Threat Containment in Singapore" (January 1987), discusses Singapore's threat perceptions and the defense policy devised to contain those threats. The fourth article, "A Conversation with General Lee" (November 1984), features an interview with BG (Reservist) Lee Hsien Loong, then political secretary to the Singapore Minister for Defense. The discussion covers various issues on Singapore's defense, including expenditure, strategy and the SAF's role in the society.

A feature report on Singapore in the Journal of Defense and Diplomacy (January 1985) provides a good summary of the country's geography, history, demography, government, economy, and defense. The article includes an analysis of the threats Singapore faces.

International Defense Review (December 1986) featured an editorial supplement on South East Asia which included two useful articles. Mike Howarth, "ASEAN Defense Round-up," provides a broad view of the defense issues facing each ASEAN country. The second article, "Regional Viewpoint," is an interview with Dr. Yeo Ning Hong, Singapore's Second Minister for Defense, which includes discussion on Singapore's defense policy and perceptions.

F.W. Speed, "The Military Potential of ASEAN," The Army Quarterly and Defense Journal (October 1985), provides a useful summary of the SAF's strength and capabilities, as part of an overall review of the military forces in the ASEAN countries.

Michael Richardson, "Singapore, The Poison Shrimp," Pacific Defense Reporter (June 1985) reviews the development of the SAF since Singapore's independence in 1965 and its defense policy as articulated by government leaders.

P.M. Mayerchak, "The Role of the Military in Singapore," The Armed Forces in Contemporary Asian Societies, and K. Jacobs, "Singapore Defense Forces," Asia-Pacific Defense Forum (Fall 1987) are two excellent articles which give an indication of perceptions on the current defense capabilities of the SAF. Both authors, besides tracing the development of the SAF, provide their views on the SAF today and the challenges it faces in the future.

Another recent article is P.L. Young, "Malaysia and Singapore Defense Forces," Journal of Defense and Diplomacy

(February 1988) which discusses Singapore's defense considerations, particularly in relation to its geography. The article also highlights the bilateral relationship between the defense forces of Singapore and Malaysia.

On Taiwan, Edward W. Ross, "Taiwan's Armed Forces," The Armed Forces in Contemporary Asian Societies is a recent article which provides an excellent overview of the Taiwanese military forces. The article traces the formative years of Taiwan's military force in the 1950s and its development as an important element of Taiwan's society. It also discusses the current and future impact of armed forces on the politics, economics, and society of Taiwan. The armed forces has played a key role and is expected to remain a major factor in Taiwan's future external and domestic development.

A feature report on Taiwan in the Journal of Defense and Diplomacy (November 1987) provides a good overview of the country's geography, history, demography, economy, threat analysis and defense.

Several good articles discuss Taiwan's defense issues, particularly its military capabilities vis-a-vis that of its declared adversary, the People's Republic of China (PRC). M.L. Lasater and L.J. Lambs, "Taiwan: Deterrence to Remain Unchanged," Pacific Defense Reporter (June 1985), give a substantial account of Taiwan's military strength and examines its deterrence capability in the next decade. M.S. Frost, "Taiwan's Security and the US Policy," Contemporary Asian Studies (1982), elaborates on

the concept of deterrence and provides a military comparison of Taiwan and the PRC. G. Jacobs, "Taiwan's Armed Forces," Asian Defence Journal (October 1982), reviews considerations in Taiwan's defense, particularly the threat assessment, and the force structure established to enable her to face up to the perceived threat. As a supplement to the above articles, R.E. Johnston's "Assessing the International Status of Partitioned Nations," Contemporary Asian Studies (1981), provides a useful table of key facts of comparison between the PRC and Taiwan, including population, area, density, budget and defense spending. The article also discusses the racial composition in Taiwan and its implication for the country's development.

J.C. Hsiung (ed), The Taiwan Experience 1950-1980 includes a collection of articles on Taiwan's defense and its military forces. Especially relevant are: M.Y.M. Kau's "Security and Defense Capabilities," E.K. Synder's "Assessment of Taiwan's Military Capabilities" and "Taiwan's Defense Capabilities and Arms Needs."

The evaluation of the threat is discussed in Chin Sheng-Pao, "A Reexamination of Taiwan's Strategic Importance," Vista Magazine Supplement (1979). Hungdah Chui, "Multi-system Nations and International Laws," Contemporary Asian Studies (1981), provides some insights into the political status of Taiwan and also the relationship between the native Taiwanese and the mainlanders from China.

SUMMARY

The nature of the subject of research necessitates that the survey of literature be done on a broad basis. To make the research effort more manageable, the literature survey has been structured into four sub-topics. The majority of the resource materials outlined in the chapter are available in the Fort Leavenworth Combined Arms Research Library (CARL).

This extensive survey shows that there is substantial available literature that treat the general aspects of military service and the conscript system. However, there are fewer analytical works on the conscript system and small nations, and the military forces of Singapore and Taiwan. This research hopes to contribute towards filling this void in the literature.

CHAPTER THREE

SINGAPORE AND TAIWAN

INTRODUCTION

Singapore and Taiwan are two small countries in Asia with a conscript system of military forces. The two countries have several significant similarities - geographic, economic, social, and political. At the same time, there are significant differences in the population size, threat perception, geopolitical environment, and history. These similarities and differences provide a good basis for a comparative case study on the appropriateness and effectiveness of the conscript military system in the two countries.

This chapter provides facts and data that facilitate the subsequent analysis of the military systems in Singapore and Taiwan.¹ The first part of the chapter provides an overview of the geographical, historical, economic, social and political aspects of two countries, highlighting relevant similarities and differences. The second part of the chapter describes the

military forces of the two countries. It covers the current strength, organization and military system. A summary table of the key relevant data of the two countries and their armed forces is provided in Appendix A for easy reference.

GEOGRAPHY

Singapore and Taiwan are both island states, with Taiwan having a much larger area than Singapore.

Singapore, situated strategically in the hub of South East Asia, is a micro-state of a total land area of approximately 621 sq km (240 sq miles). It consists of one main island and 57 smaller islets. The main island has a coastline of 132 km. Singapore is flanked by its ASEAN (Association of South East Asian Nations) neighbors, Malaysia and Indonesia. The Strait of Johor which separates Singapore and West Malaysia is less than one km wide. At its narrowest point, the strait is only 640m wide. (See map in Appendix B).

Taiwan, lying about 200 km (125 miles) off the southeastern coast of mainland China, has a total land area of about 35,980 sq km (14,000 sq miles) and a coastline of 1,240 km. Taiwan consists of the main island of Taiwan and 20 smaller offshore islands. Two principal offshore islands are Quemoy and Matsu, both less than 20 km away from mainland China (See map in Appendix C).

HISTORY

Modern Singapore and Taiwan are both emergent nations in the post World War II period. The two countries have however significantly different historical backgrounds. Singapore's transition from its colonial background to its independence was a relatively peaceful political process even though there was an intense internal struggle against communist insurgency. Modern Taiwan however came into being in 1949 as a direct result of the civil war in China.

Singapore was a British colony from 1819 to 1959, except for the period February 1942 to September 1945 when it came under Japanese occupation. In 1959, it became internally self-governing, and in 1963 it joined Malaya, Sabah and Sarawak to form Malaysia. During these periods, external defense of Singapore was mainly the responsibility of the British. In August 1965, following a period of political friction between Singapore and the Malaysian central government, Singapore separated from Malaysia and became an independent republic. With independence, defense became a crucial and urgent national priority.

Historically, Taiwan had frequently been affected by political and military struggles that took place in mainland China. In 1662, the forces of the Ming Dynasty who were fleeing from the Manchu invasion of mainland China occupied Taiwan. From 1683 it was under Manchu rule. Following the Sino-Japanese War of 1894-5, it came under Japanese control until the end of World War II. With the defeat of Japan in 1945, Taiwan was returned to

China's control and was governed by the representatives of the KMT (Kuomintang) Nationalist government. In 1949, the Nationalist Government of Chiang Kai-Shek and his remaining army withdrew to Taiwan under the pressure of the advancing communist forces. The declared intention of the Nationalist Chinese then, as it remains today, was to consolidate in Taiwan and to prepare for a re-capture of mainland China. Thus, the Republic of China (ROC) theoretically encompasses mainland China and Taiwan. Since 1949, Taiwan has however developed very rapidly into a modern nation with a significantly separate identity.

SOCIETY

Taiwan has a population of about eight times that of Singapore. Both are Asian societies with a large percentage of Chinese population that is influenced by traditional Confucian values. Singapore is however more multi-racial than Taiwan. For both countries, the ethnic composition of their population is a factor of consideration in the nation-building process. Both countries have relatively high literacy rates, 86% for Singapore and 89% for Taiwan.

Singapore's population of 2.6 million comprises 76% Chinese, 15% Malays, 6% Indians, and about 3% other ethnic groups. The bulk of Singapore's population are descendants of earlier migrants to Singapore who came from China, India, Malaya, and Indonesia.

Taiwan has a population of 19.6 million which comprises 98% Chinese and 2% aborigines. The Chinese can be further divided into two categories, the native Taiwanese (about 85%) and the mainlander Chinese (about 13%). The native Taiwanese are Chinese who had migrated to Taiwan before 1949 and their descendants who were subsequently born in Taiwan. The mainlander Chinese are those who came to Taiwan in 1949 together with the retreating Nationalist army.

ECONOMICS

Singapore and Taiwan are often termed Newly Industrialized Countries (NICs). Among the developing Third World countries, Singapore and Taiwan have both been very successful in their economic development over the last two to three decades. The economic growth has allowed the two countries to maintain a relatively high defense budget that contributed to the modernization of their armed forces over the period.

Singapore enjoyed a brisk economic growth rate (average 10%) from 1965 to 1985. The economy however declined in 1983 due mainly to external economic forces, but it turned around in 1987. Singapore's per capita GNP, one of the highest in Asia, averages US\$7,000, and ranks 19th highest in the world according to the 1987 World Bank Report. Defense expenditure averages about 6% of the annual GNP. As a small country that lacks natural resources, Singapore's economy is highly dependent on international trade, worldwide markets and foreign investment.

Given its economic vulnerabilities, confidence in the stability of the country is of vital importance to Singapore's economic survival.

Taiwan's annual economic growth has been strong and resilient, averaging about 9.2% for the period 1965 to 1985. It has a high per capita GNP of US\$3,000. A large portion of the economic growth is set aside for defense, averaging about 9% of the GNP. Like Singapore, Taiwan's economic growth depends significantly on foreign investment and international trade. However, compared to Singapore, Taiwan has a larger domestic sector and a more diversified economic base.

POLITICS

Both Singapore and Taiwan have enjoyed political stability over the last two to three decades.

Singapore has been governed by a single political party (The People's Action Party - PAP) since the establishment of its self-government in 1959. In four general elections since the nation's independence in 1965, the PAP has been returned as the dominant political party in Singapore's parliamentary system. Mr. Lee Kuan Yew, who became the first prime minister of Singapore in 1959, has remained the democratically elected prime minister for the country for the past 28 years. This political continuity and the pragmatic leadership of the government have provided the stable conditions for Singapore's development. The

civil-military relation in Singapore is characterized by stable civilian control over the military.

Taiwan's politics since 1949 have invariably been dominated by the KMT (Kuomintang) Nationalist Party. Political stability is evidenced by the relatively smooth transition of power from the time of Chiang Kai-Shek to the recent death of President Chiang Ching-Kuo. Though friction between the mainlanders and native Taiwanese remains a possible problem, the political development of Taiwan has progressed well. Military rule was lifted in July 1987 after 38 years. The military in Taiwan has participated influentially in the national decision-making process.

THE SINGAPORE ARMED FORCES (SAF)

The SAF today has an active strength of 50,000 comprising 20,000 regulars and 30,000 full-time conscripts, known as national servicemen. They are complemented by 200,000 reservists.²

There are three services. The army is the largest and has the highest conscript-to-regular servicemen ratio (approximately 3:2). The army has an estimated active strength of 45,000 and 170,000 reservists. The main strength of the Singapore army consists of three divisions - one active and two reserves. These divisions are supported by armor, artillery, engineers, signals, air defense and combat service support units. These units are made up of both active and reserve components.

The Republic of Singapore Air Force (RSAF) has 6,000 active personnel (including 3,000 conscripts) and 7,000 reservists. It has a fleet of more than 100 aircraft, including F-5E/F Tiger IIs, A-4S Skyhawks, Hawker Hunter F-74Bs, C-130 Hercules, Skyvans and E2Cs.

The Republic of Singapore Navy (RSN) has 4,500 active personnel (including 1,800 conscripts) and 4,500 reservists. It has a fleet of 32 ships organized into six squadrons comprising missile gunboats, patrol craft, coastal patrol craft, minesweepers and LSTs (landing ship tank.)

The key to the SAF's manpower strength is the national service system which provides the armed force with a steady inflow of conscripts and a regular outflow of reservists that form the bulk of its fighting strength. Compulsory conscription was introduced in 1967. Under the national service system, all able-bodied male citizens over the age of 18 are required to serve 24 to 30 months in the armed forces.³ Following twelve weeks of basic military training, the conscripts are assigned to serve in either combat, service or technical fields. Deferments and exemptions from national service are tightly controlled.

On completion of their full-time national service, the servicemen are transferred to the reserves. Military service liability in the reserves ends at age 50 for officers and 40 for others. With the bulk of the SAF's strength in the reserves, much emphasis is placed on maintaining high operational readiness of reserve units. Singapore's conscripts system provides for the

transfer of entire units (companies and battalions) from active service to the reserves, together with the bulk of their NCOs and junior officers. This means that a conscript soldier would usually remain as a reservist in the same unit and among familiar comrades, thereby enhancing unit cohesion. A reserve unit is generally put through a 13-year training cycle in which the reservists are required to undergo annual in-camp trainings and physical fitness tests. Over the years, many reserve officers have been groomed to hold key command and staff appointments.

The citizen-army concept of the SAF, although classified as a conscript system under the definition given in Chapter One, is in reality similar to the Swiss Militia system in at least five key aspects. First, there is universal compulsory military service for all able-bodied male citizens. Second, the reservists are required to remain as part of the armed forces for a relatively long period. Third, the reservists form the bulk of the total armed forces. Fourth, reservists are organized into units and generally remain in the same units throughout their reserve service. Fifth, the reserve officers play an active role in the training of the troops under them, and they are appointed to leadership positions even up to brigade commander level. Moreover, in its emphasis on preparing the entire nation to meet with external threats through a concept known as "Total Defense," the Singapore military system comes closer to the nation-in-arms concept of Israel and Switzerland than most

countries with conscript forces. Conceptually, it is perhaps possible to speak of a "Singapore Conscript Model," which together with Israel closely resembles the Swiss Militia Model, but is not as encompassing in its overall integration of the armed forces and the society as is the case for Switzerland. "Switzerland," as described by Klemans Metterwich, the noted nineteenth century diplomat, "does not have an army; it is an army."⁴

THE TAIWAN ARMED FORCES

The active armed forces of Taiwan number 400,000, complemented by 1,500,000 reservists.

The armed forces consists of the three main services. However, the Taiwan Garrison, a paramilitary organization, also comes under the control of the Ministry of National Defense (MND).

The army has an active strength of 300,000 and 1,000,000 reservists. It is organized into the following main units: 12 heavy infantry divisions, six light infantry divisions, six mechanized infantry brigades, four tank groups and two airborne brigades. In addition, there are nine reserve divisions. These divisional units are maintained at cadre (regular) strength of 3,000 personnel, and they will be filled with reservists from the reserves manpower pool when required.⁵ A substantial portion (about 18%) of the army's active strength, comprising mainly

conscripts, is deployed on the two heavily fortified offshore islands (55,000 troops on Quemoy and 18,000 troops on Matsu).

The navy has 38,000 active personnel and 45,000 reserves. Under the navy's command, there are also 39,000 active marines and 35,000 reserves. The marines are organized into three divisions.

The air force personnel total 77,000 (active) and 90,000 (reserves), making it one of the largest air forces in Asia. There are five fighter wings which operate a range of combat aircraft, including the F-5E, F-5F, F-100A/D and F-104G.

Just as in the case of the SAF, the Taiwan armed forces' manpower strength is based on a conscript system that produces its required full-time personnel as well as generates the needed reserve pool. Under the conscript system, all physically fit 18-year old males are required to serve either two years in the army, or three years in the air force or navy. For the majority of the army conscripts, one of their two years' service will be spent in garrison deployment on the offshore islands.

On completion of conscript service, the reservist remains obligated until age 55. However, reservists who have completed ten years of combined active and reserve duty generally remain as part of a trained military manpower pool and are not called up for annual training. They will be mobilized when required.

Comparing the military systems of Singapore and Taiwan, the conscript forces of the two countries are similar in terms of the universal compulsory military service for male citizens,

the age for conscription, the length of compulsory full-time conscript service, the long period of reserve service and the high dependence on the reserve component to provide the main strength of the armed forces. However, the conscript forces of the two countries differ significantly in two key aspects. First, while the SAF reservists are organized into organic brigades and units (released into the reserve as an entire unit), the reservists in Taiwan are organized under administrative groupings, often by regional zoning. Second, the reservist officers in the SAF are relatively more integrated into the overall leadership structure of the military force while the reservist officers in Taiwan generally fill only the junior-level leadership positions. While both countries have conscript forces, the military system in Singapore is more conceptually linked to the Swiss Militia system than the military system of Taiwan which possesses features relatively more typical of a conscript system.

ENDNOTES

¹ Only information relevant to the analysis in this research will be included. However, several good sources can be consulted for general facts on the two countries - Background Notes (US Department of State, published yearly), Defense & Foreign Affairs Handbook (The Perth Cooperation, published yearly) and The Military Balance (The International Institute for Strategic Studies, published yearly).

² The figures are based on Singapore Facts and Pictures 1987 (Singapore Ministry of Communications and Information, 1987) and The Military Balance 1986-87.

³ Besides the SAF, national servicemen may also be conscripted to serve in the Singapore Police Force and the Singapore Civil Defense Force. However, the number of national servicemen in the Police and SCDF is relatively small compared to that of the SAF.

⁴ Quoted in "The Swiss Confederation," Journal of Defense and Diplomacy (June 1987), 33.

⁵ G. Jacobs, "Taiwan's Armed Forces," Asian Defence Journal (October 1982), 61.

CHAPTER FOUR

WHY DO SINGAPORE AND TAIWAN HAVE A CONSCRIPT SYSTEM?

INTRODUCTION

Conceptually, a country's decision for having a military system can be analyzed from three possible approaches:

- a. An analysis of the factors inherent to the country influencing its decision on the military system.
- b. An analysis of the national objectives (both military and non-military) of the country.
- c. An analysis of the economic and social constraints limiting the country's adoption of a particular military system.

The considerations influencing a country's adoption of a conscript system are closely interrelated. The adoption of a particular military system is in reality the result of a combination of both necessity and choice, taking into consideration the country's inherent conditions, its national objectives and the constraints it faces.

For the purpose of analyzing the rationale upon which Singapore and Taiwan adopted a conscript armed force, a conceptual model is used. The model collates all pertinent considerations, drawing from several sources which directly or indirectly allude to the factors affecting a country's choice of its military system.¹

Six factors are identified as key considerations. They are: the country's geography, the country's threat perception, the historical circumstances, the population/society, and the economic considerations.

The six factors are dovetailed into an analytical framework which is depicted in Figure 1.

The analytical framework is organized into six steps as follows:

- a. Step 1: An analysis of the country's geography.
- b. Step 2: An analysis of the threat perception and the balance of power between the country and the identified/potential threat(s).
- c. Step 3: An analysis of the country's defense policy.
- d. Step 4: An analysis of the historical circumstances during the initial adoption of the conscript system.
- e. Step 5: An analysis of the country's population and its social attitudes towards defense.
- f. Step 6: An analysis of the economic considerations.

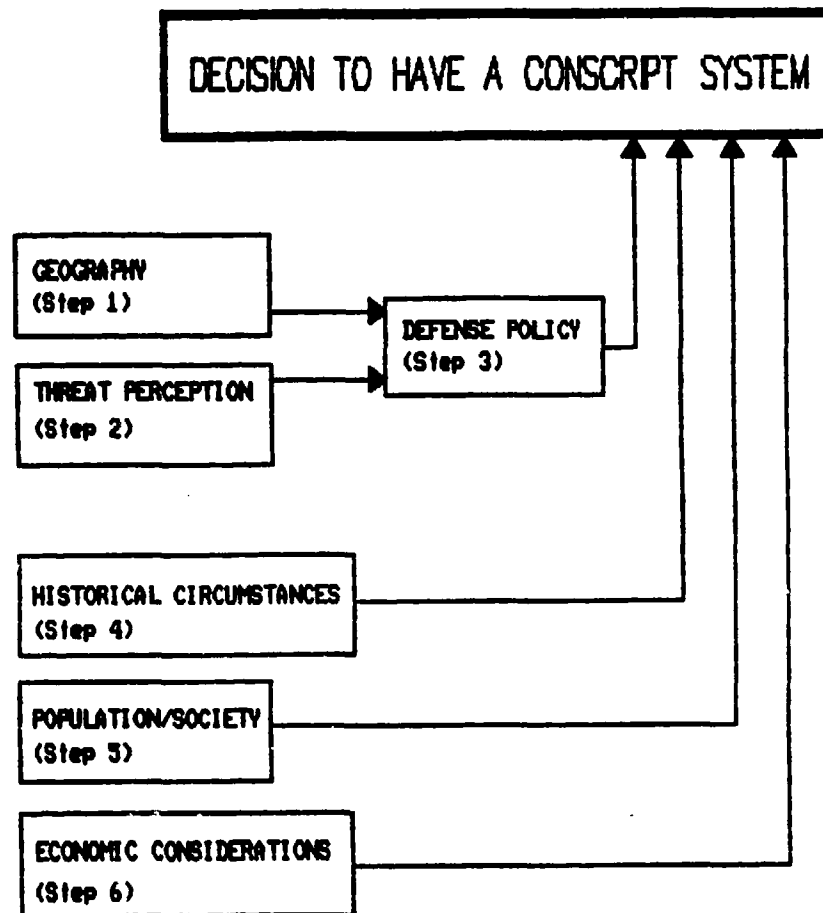


FIGURE 1 - FRAMEWORK FOR ANALYZING A COUNTRY'S DECISION TO HAVE A CONSCRIPT SYSTEM

The model first examines the influence of the country's geography and threat perception on its security consideration and the formulation of its defense policy. The defense policy of a country to a great extent dictates the type of military system that can best meet its defense needs. It is analyzed as the primary factor that affects the country's decision to have a conscript system. The model next examines the extent to which

historical circumstances faced by the country affected its decision to adopt a conscript system. Finally, the model considers the effects that social and economic constraints have on the adoption and maintenance of the conscript system.

Elaboration on how each factor affects the country's decision to have a conscript system will be discussed in each of the steps. When analyzing each factor, attention is also given, where relevant, to differences between past and current perspectives. The effect that each factor has on the initial adoption of conscription is compared with its influence on the continued maintenance of the conscript system.

To further facilitate the analysis, a complementary list of relevant questions pertaining to each of the factors and considerations has been constructed (See Appendix D).

GEOGRAPHY (STEP 1)

There are some 45 countries with land area of less than 100,000 sq km. Of these small countries, the split between those having a conscript system and those having an all-volunteer system is about even. This suggests that the size of a country does not conclusively determine the type of military system it has. Small countries that share long common borders with neighboring (and often potentially hostile) countries tend to favor a conscript system while more small island nation-states have an all-volunteer system.² There are 14 island nation-states with land area of less than 100,000 sq km. All except five of

these small island nation-states have all-volunteer military forces. Singapore and Taiwan are among the exceptions.² It would therefore be meaningful to consider how or if geographical conditions of the two countries affected their defense policy and their adoption of a conscript military system.

Singapore. The physical smallness of Singapore is immediately obvious when it is compared with other countries. Singapore is the smallest country in South East Asia.

Even more significant than the mere smallness of the country is the fact that Singapore's geography does not offer it much defensible ground. Though it is an island, Singapore does not enjoy the natural security generally associated with insular nations. Its proximity to the Malay peninsula, separated only by a narrow strait less than one km wide, in effect makes Singapore geographically more like an extension of the peninsula than an island insulated by a body of water. Moreover, the existence of landing sites all around the island's coastline, the flatness of the island and the lack of a buffer land mass on the island are geographical factors that affect the security consideration for Singapore.⁴ The geography of Singapore does not constitute a positive element of the country's power. As recent history has shown in the Japanese invasion of Singapore in 1942, the country's geography was a source of its vulnerability. The Japanese, attacking Singapore from Malaya, were able to force a surrender upon the British defense within seven days of their

successful landing on the island's northwestern coast, thereby destroying the illusion of Singapore's invincibility as a "fortress island." There are of course many reasons behind the fall of Singapore. However, an unrealistic appreciation of Singapore's geographical vulnerability on the part of the British defender was no doubt a significant factor.

The geographical vulnerability of Singapore is clearly recognized by its leaders. Since Singapore's independence, its smallness has constantly been discussed in relation to its national security. The former Second Deputy Prime Minister, Mr. S. Rajaratnam alluded to this fact when he said, "Though the size of modern states varies there is a subjective minimum size below which viability is thought well-nigh impossible. Singapore, by these criteria is a micro-state."⁵ Likewise, the Second Minister for Defense, Dr. Yeo Ning Hong, identified Singapore's smallness as the main weakness in the nation's capacity to defend itself.⁶ Even more specifically, Mr. Goh Chok Tong, the First Deputy Prime Minister and Minister for Defense, directly linked Singapore's smallness to the need for a conscript system when he said, "We are a small nation, small in land area and population size. Without national service, we would not be able to protect ourselves."⁷

Therefore, geographical factors make Singapore peculiarly vulnerable. This vulnerability necessitates the strong emphasis on external defense and the need for a large armed force.

Taiwan. In discussing Taiwan's geography, it is necessary to differentiate between its main island (Formosa) and the two principal offshore islands of Quemoy and Matsu.

The main island of Taiwan possesses all the geographical characteristics generally associated with the insular security of an island-state. Taiwan is insulated all around by water, with the Taiwan Strait (200 km wide) separating it from mainland China. The Taiwan Strait is probably the biggest obstacle that stands in the way of any PRC invasion of Taiwan which would require formidable naval capabilities. The island of Taiwan, which is the second largest island-nation in Asia, is also sufficiently large to act as buffer ground in the face of any successful landing on the island. Moreover, its rugged relief provides good defensible terrain. Any aggressors, even if they succeeded in gaining a foothold on the island, would have to contend with difficult guerilla fighting all through the mountainous terrain before the entire country could be subdued. The geography of Taiwan's main island therefore contributes positively to the country's national power. Based on geography alone, Taiwan would not need a large standing army for its defense and would logically have an all-volunteer military force, as with other similar island nation-states. The geography of Taiwan's main island is therefore not a significant factor in explaining its adoption of a conscript system.

However, the situation is drastically different if we consider the two principal offshore islands of Quemoy and Matsu

which are dangerously close to Taiwan's main threat, the PRC. The recognition of their geographical vulnerability is evidenced by the strong fortification and the large deployment of forces on these two key islands.

Quemoy and Matsu are important to the overall defense of Taiwan for both military and political reasons. Militarily, the two islands are strategically located to monitor any build-up of forces in the Chinese mainland preparing for an invasion of Taiwan. With the use of sophisticated intelligence equipment, early warning against an impending invasion greatly enhances Taiwan's defense capability. Occupation of the two islands also allows Taiwan to control the outlets of two rivers in mainland China from which naval expeditions for the invasion of Taiwan are likely to commence. Politically, the successful defense of the two contested "outposts" carries with it serious psychological significance which is disproportional to the size of the islands. A successful PRC capture of the two islands represents a defeat of Taiwan's will to resist. Considering the military and political importance of Quemoy and Matsu and their geographical vulnerability, they have to be defended despite the large requirement of manpower and resources.

Therefore, if the geographical consideration of Quemoy and Matsu is included in the analysis, the need for a large conscript force for Taiwan becomes obvious. This is supported by the fact that a substantial portion of the conscripted soldiers,

as discussed in Chapter Three, is deployed on the two offshore islands.

THREAT ASSESSMENT (STEP 2)

Small countries which face constant external threats or which are situated among more powerful and historically hostile neighbors, tend to have a conscript military system.⁹ Conscription allows the small countries to maintain a substantial standing military force which diminishes or even eliminates the numerical advantages possessed by their potential adversaries. By maintaining large standing armed forces augmented by a large pool of reserves, the conscript system provides the basis for deterrence vital for the national defense of the small countries.

Singapore. The last occasion in which Singapore forces were involved in a military conflict was the 1963-66 "Confrontation" with Indonesia. Singapore troops fought as part of the British forces which were defending Malaysia (including Singapore) against Indonesia. Since then, Singapore has not faced any direct external threat. Its relationship with its two larger immediate neighbors, Malaysia and Indonesia, has over the last two decades been friendly, particularly within the regional co-operation of ASEAN.¹⁰

The Prime Minister, Mr. Lee Kuan Yew, when speaking to SAF officers said, "We do not consider our neighbors in South East Asia as threats to our security. There will always be

differences in national interests and perceptions but, so long as the governments and leaders of South East Asia are rational, these differences will not lead to armed conflict."¹¹ The defense of Singapore and Malaysia is linked through a 1971 Five Power Defense Arrangement involving Britain, Australia, New Zealand, Malaysia, and Singapore, which provides for military co-operation among the members in the event of an external attack on Malaysia or Singapore. Air defense of Malaysia and Singapore is also integrated under the Integrated Air Defense System (IADS) with the positioning of air force elements of the two countries in Butterworth Air Base in West Malaysia. Bilateral exercises between the SAF and the armed forces of Malaysia and Indonesia are held regularly. The regional co-operation and stability among the members of ASEAN is expected to continue into the next decade, even with the turnover of leadership in these countries.

However, to say that Singapore faces no specific external threat does not mean that there is a complete absence of threats. Threat perception is certainly a vital factor in Singapore's defense planning. The vulnerability of Singapore dictates that defense against a general potential external threat be regarded seriously as the foundation for the nation's survival. Historically, many small nations that perceived no external threats during peacetime suffered the consequences of their ill-preparedness in defense when they were threatened. There are also examples of small countries (e.g., Switzerland and Sweden) that continue to maintain a strong military capability

while remaining at peace with all other countries. Their preparedness to meet a general threat accounted for their continuous peaceful existence.

As identified by the Prime Minister, Mr. Lee Kuan Yew, the external threats to Singapore's security are likely to come from "irrational and extremist forces or from expansionist regimes backed by a big power."¹² Singapore's defense preparation is based on the pragmatic views that South East Asia has historically been a turbulent region, and that the communist threat in Indo-China which poses an immediate threat to Thailand is a matter of concern to the countries of ASEAN. Singapore's strategic location which controls the chokepoint of the important Malacca Strait, while being a key factor for its economic success, constitutes at the same time a source of increased vulnerability for the country. The 960-km (600-mile) long Malacca Strait provides the shortest link between the Indian and Pacific Oceans and is the prime route for commercial shipping, especially large crude oil carriers. Singapore's position astride the narrowest point of this important waterway, coupled with its excellent air and sea port facilities, makes the country strategically important in any regional conflicts. Historically, it was this strategic position which made Singapore the hub of the British Empire in the Far East and also caused it to become an attractive objective during the Japanese invasion of South East Asia in the 1940s.¹³

Therefore, the fact that Singapore has no direct threat and that it has friendly neighbors within a regional co-operation context does not preclude its need to have a strong defense. On the contrary, Singapore's vulnerability and its need to be prepared against any potential external threat means that it should provide for as strong a defense capability and as large an armed force as it possibly can. The Second Minister for Defense, Dr. Yeo, in quoting Sun Tzu, summarized Singapore's threat perception as "not being based on the assumption that the enemy is not coming, but being based on the premise that you are prepared for him if he should come."¹⁴

Taiwan. Taiwan's threat perception is based primarily on the balance of its military capabilities *vis-a-vis* that of the PRC. Quantitatively, the PRC enjoys a commanding 10 to 1 superiority over Taiwan in terms of personnel and almost all categories of military equipment. In several categories, the PRC has a monopoly on weapon systems, including strategic nuclear forces. However, the PRC threat is not as overwhelming as the numerical superiority suggests due to two reasons.

First, Taiwan's military forces currently maintain a qualitative edge over the PRC forces in terms of training and equipment. This situation is however not static, given the PRC's current effort in modernizing its armed forces. The pace of the PRC's military modernization and Taiwan's ability to maintain its qualitative edge would be key factors in the balance of power

between the two countries. It is however generally believed that Taiwan, with its dynamic arms industry, is likely to remain qualitatively ahead of the PRC for at least the next 10 years.¹⁵

Second, the PRC faces external threats along its long common borders with several countries. This necessitates that the PRC disperse its military forces over a wide area. The PRC deploys almost half of its armed forces to meet the Soviet threat, which it perceives as its most serious threat. Large numbers of Chinese troops are also deployed along the PRC-Vietnam/Laos border against the Vietnamese forces with whom the Chinese fought a war in 1979. The PRC's border dispute with India, though stagnated since its border clashes in 1962, remains unresolved. Given the dispersal of forces over a very large area and also the political tension between the PRC and the respective neighboring countries, there is limited scope for the PRC to shift its forces from one area to another. This widespread commitment of forces in effect decreases the PRC's real quantitative superiority over Taiwan.

However, despite these considerations, the existence of the PRC threat is, in this author's view, the single most important factor influencing the need for Taiwan to maintain a large standing armed force. The PRC and Taiwan remain constantly at war, a legacy from their unfinished civil war. Although the communist Chinese leaders since 1984 have gradually adopted a less aggressive stance towards Taiwan, the PRC has consistently refused to rule out the use of military force against Taiwan.¹⁶

As observed by M. Lasater in a recent study, the PRC threat will continue to hang over Taiwan as long as the reunification issue remains unresolved.¹⁷

For both Singapore and Taiwan, threat perception is therefore an important factor influencing their defense policy and the choice of a conscript system, even though the nature of threat facing the two countries is significantly different. The analysis suggests that the cases of Singapore and Taiwan support the generalization that small states that believe themselves as both being threatened and being capable of resistance will usually choose a conscript system so as to maintain a large standing military force.¹⁸

DEFENSE POLICY (STEP 3)

A country's defense policy is generally based on its perception of defense needs which are shaped by the geography and the threat assessment of the country. These factors have been analyzed in Steps 1 and 2 of the postulated model. The analysis proceeds in this step to examine the defense policy of Singapore and Taiwan, which provides the basis for the type of military service the countries require.

Singapore. The basic defense philosophy of Singapore is one of effective deterrence based on the existence of a credible defense capability. Singapore's Second Minister for Defense, Dr.

Yeo termed it as "deterrence being solidly rooted in operational readiness."¹⁹ National security depends on deterrence by making the costs of aggression on Singapore visibly exorbitant. This defense policy is sometimes referred to as "the poison shrimp" strategy which means that deterrence is attained by the nation's ability to inflict "acute pain" on any potential aggressors. However, it is not meant to be a passive "suicidal" posture. The crux of the nation's defense policy is that if deterrence fails, the SAF must have the capability to repel the aggressor.²⁰

One key tenet in Singapore's defense policy is that effective national defense requires the effort and commitment of the whole nation, not just the armed forces. This is embodied in the concept of "Total Defense" which was introduced in 1984. "Total Defense" comprises the five components of psychological, social, economic, civil and military defense.

Considering Singapore's defense policy and its "Total Defense" concept, a conscript military force is suitable for the needs of the SAF in that:

- a. The system provides a large standing force substantial enough for effective general deterrence.
- b. The system generates a continuous pool of reservists that could be mobilized to meet an external threat when deterrence failed.
- c. The system galvanizes the bulk of the population behind the national defense cause.

Taiwan. Taiwan's defense policy is closely linked to its threat perception and the assessment of its own military capability. Although the declared intention of the KMT since 1949 has been to recapture mainland China through military action, it is clear that the realistic defense posture of modern Taiwan has evolved over the last three decades into one of deterrence of an invasion by the PRC.

Under condition of the PRC's quantitative superiority in both manpower and military equipment, Taiwan's defense hinges on deterrence based on its ability to convince the opponent that an invasion of Taiwan would incur prohibitive costs. This is particularly so after December 1978 when the US-Taiwan 1954 Mutual Defense Treaty was terminated with the establishment of diplomatic relations between the US and the PRC. The key effect of this significant political twist in the US-Taiwan relationship was to remove from Taiwan's deterrence policy the option of a US-backed retaliatory response to the PRC if it were to mount an offensive against the country.

Based on the defense policy, Taiwan requires an armed force large enough to dissuade its threat from attempting any aggression. A conscript force, backed by a large pool of reservists, appears to be the solution, as opposed to a smaller all-volunteer armed force. Though the maintenance of a qualitative edge is vital to the Taiwan-PRC balance of power, the presence of substantial quantitative strength in Taiwan's armed forces is an equally important part of the defense policy.

HISTORICAL CIRCUMSTANCES (STEP 4)

Conscription provides a country the ability to raise a sizable force within a shorter period of time as compared to an all-volunteer system. Countries that are at war or are facing a state of tension often resort to a conscript system to provide them with the large force required and a constant flow of replacements. An examination of the historical circumstances under which Singapore and Taiwan adopted a conscript system may throw some light on the reasons behind the decisions.

Singapore. Singapore's withdrawal from Malaysia to become an independent nation in August 1965 was sudden, and unexpected to many. One of the immediate tasks to ensure the nation's fragile political survival was to build up a credible defense capability.

Two realities confronted the defense planners. First, the defense issue required urgent attention. The suddenness in which Singapore became independent provided little time for exhaustive planning on the type of forces to raise. Up to then, Singapore's external defense had always been the responsibility of the British with the support of the Australians and the New Zealanders, and since 1963, that of the Malaysian central government. With independence, the responsibility for national defense instantaneously fell on the shoulders of Singaporeans. Though the British still maintained a military presence in Singapore then, there was every indication that British forces would be withdrawn completely and at short notice. The military

vacuum needed to be filled and the required defense force had to be substantially ready before the pull-out of the British forces left Singapore totally defenseless. In 1966, the British Labour Government announced its intention to withdraw all its troops east of the Suez by 1975. The time-table was subsequently shortened to have complete withdrawal of British troops by 1971. To Singapore, this decision meant a heightened urgency for acquiring a credible defense capability at an accelerated pace in its effort to raise the SAF.

Second, the SAF had very little to begin with to build up its military force. All that the army had in 1965 were two regular infantry battalions. The battalions' strengths were also reduced due to the transfer of some soldiers to the Malaysian Armed Forces with the split. The navy then consisted of three wooden ships manned by some naval volunteers. There was virtually no air force. The only other military organization in existence was a small Singapore Volunteer Corps (later renamed People's Defense Force). Moreover, the infrastructure, training facilities, equipment and expertise required for maintaining a defense force were all lacking. Much needed to be accomplished in a very short time.

The historical circumstances that Singapore faced during the immediate period following its independence were significant in influencing its adoption of a conscript system. A large manpower requirement was necessary to establish a minimal defense force. It would have been impossible to rely on

volunteers to make-up this quantitative requirement within the short period. At the same time, a pure militia system would not facilitate the establishment of a sizable standing force. Conscription was therefore the viable convenient solution.

The events during the period support this conclusion. The development plan for the build-up of the SAF was quickly drawn up with the help of Israeli advisers.²¹ A basic core of regular officers and NCOs was rapidly assembled, drawing from regular soldiers from pre-independence days, mobilized members of the "Singapore Volunteer Corps" and newly recruited volunteers. At the same time, the infrastructure and training facilities were being constructed. By April 1967, nineteen months after independence, enlistment notices were sent out to eligible Singaporean men born in 1949. In July 1967, the first batch of conscripts was drafted. The next ten years saw the rapid build-up of the SAF strength, in both the active and the reserve forces.

Taiwan. When Chiang Kai-Shek and his remaining army of 800,000 troops withdrew to Taiwan in 1949, they faced the serious threat of an imminent invasion from the Chinese communists who seemed determined to complete their victory in China with the extermination of the KMT. In early 1950, the PRC massed 300,000 men, 400 aircraft and an invasion fleet of barges and junks along the Fukien coast. The isolated KMT forces on Taiwan, though numerically still a large force, faced serious morale and

logistics problems. The only advantage they enjoyed then was the natural protection offered by the Taiwan Strait and the PRC's lack of amphibious capabilities. Although the outcome of a PRC invasion on Taiwan in 1950 would have been uncertain, there is no doubt that the serious military threat from the PRC dictated that the immediate task of the KMT was to consolidate and to urgently prepare for the defense of Taiwan.

The outbreak of the Korean War in 1950 and the resulting renewal of US interest in the strategic position of Taiwan was a key factor that averted the planned PRC invasion. The regained access to US aid and military supplies also provided the KMT the much-needed support to rebuild and modernize its military strength.

Although the PRC's attack on Taiwan in 1950 did not materialize, the military threat from the PRC constituted the most pressing concern for Taiwan in the 1950s. The Taiwan Strait crisis in 1954 which saw the communist Chinese bombarding and raiding Quemoy and the naval blockade of Quemoy in 1958, provided two examples of the constant state of tension between the PRC and Taiwan during the first decade of their separation.

For nationalist China, the existence of the serious PRC threat during the initial years of its establishment in Taiwan had, in this author's opinion, three significant ramifications. First, it acted as a catalyst in gaining for Taiwan increasing US support as Taiwan became an important part of US interest within the bi-polar geopolitical balance of forces in the Far

East. This view is well supported when we consider the fact that each perceived PRC aggression on Taiwan during the period resulted in increasing US support for Taiwan. For instance, the 1954 Taiwan Strait crisis resulted in the U.S.-Taiwan Mutual Security Treaty, and the 1958 PRC naval blockade of Quemoy saw the dispatch of the US Seventh Fleet to the region and also increased US commitment to Taiwan. Second, the threat of an imminent PRC invasion of the island resulted in increasing support from the native Taiwanese population for the nationalist defense. This had significant influence in the integration of the native Taiwanese and the mainlander Chinese in Taiwan as the country proceeded with its national development since 1949. Third, and very significant to this analysis, is the fact that the prevailing PRC threat in the 1950s necessitated Taiwan's maintenance of a large standing armed force as well as the urgent injection of younger soldiers to replace the aging KMT troops. Conscription provided the Taiwanese armed forces the solution to both the tasks.

Therefore, the historical circumstances facing Taiwan in the 1950s are significantly linked to the introduction of conscription in the Taiwan armed forces.

POPULATION/SOCIETY (STEP 5)

The relationship between a country's population/society and its military system has several dimensions. The population/society is both a factor influencing the country's

choice of military system as well as a constraint on the adopted system. Countries with populations smaller than that of their immediate neighboring states or their adversaries tend to have a conscript military system which allows them to diminish the quantitative difference in the military forces. At the same time, countries that find themselves unable to attract sufficient volunteers often have to resort to conscription to raise the size of armed forces required for an adequate defense. Moreover, as a conscript system is so intimately intertwined with the population, it becomes a useful channel for the government to advance certain social and political goals.

Singapore. Singapore's small population, one of the smallest in Asia, affects its military system in several ways.

The small population base, coupled with the declining growth rate and an aging population, poses a serious constraint to the size of the SAF. The same manpower pool from which the regulars, the conscripts, and the reservists are drawn is small and contracting. At the same time, the military as well as the non-military sectors of the economy share, or more precisely compete for their manpower needs within the small population base. This implies a trade-off in manpower utilization between defense requirements and other economic/social needs. As a unique factor, Singapore's small population constitutes a disadvantage for the adoption of a conscript military system.

The requirement of a large standing armed force for Singapore's effective deterrence is however dictated by the other factors analyzed. Within this context, the quantitative limitation imposed by a small population base has to be overcome by the SAF with appropriate force structuring and qualitative upgrading of the armed forces. In this respect, the high literacy rate of the population facilitates the training of conscripts, especially in handling modern sophisticated military equipment.

While recognizing the constraint of a small population on SAF's size, two other significant aspects of Singapore's society affect the choice of a conscript system.

First, without conscription, the SAF would not have been able to attract the number of volunteers it required during its formative years. Given the predominant migrant mentality of self-interest, Singaporeans during the time of their independence had little sense of national commitment. Particularly for the Chinese majority of the population, military service was not accorded a high position in society. This is due mainly to the strong cultural influence which is characterized by the Chinese saying that "good men do not become soldiers." Before Singapore's independence, there was also no strong military tradition of involving the bulk of the indigenous population in defense of Singapore. Left on its own, even despite the fact that nationalistic feelings were growing among Singaporeans with the newly declared independence, it is extremely unlikely that an all-volunteer SAF would be able to attract the sizable manpower

required within a short time. Moreover, an all-volunteer SAF would likely result in an ethnic composition that is unrepresentative of the racial distribution of Singapore's population. Such a situation would have unhealthy long term social and political consequences for the national development of a multi-ethnic country like Singapore. Therefore, in this author's view, the introduction of conscription in the formative years of the SAF was in part influenced by the need to:

a. Build up the manpower strength of the SAF within a short time, which would otherwise not be possible with an all-volunteer system given the prevailing attitude of the population towards military service;

b. Bring about a more balanced racial composition within the SAF, given the different inclination towards volunteering for military service among the different races.

Taiwan. Taiwan's case supports the hypothesis that countries with populations smaller than that of their adversaries tend to have conscription as a means to narrow the quantitative differences between the armed forces.²² Faced with the large manpower available for the PRC's armed forces, a conscript military system seems to be a necessity for Taiwan, rather than a choice. Unlike Singapore which has to base its defense policy on deterrence of unspecific threats, Taiwan's military planners are better able to assess its strength requirements based on the balance of power between the PRC and itself. Using a

realistic threat assessment which takes into consideration the PRC's dispersion of forces along its borders with the USSR, Vietnam and India, the geography which favors Taiwan and the qualitative factor of the two armed forces, the existing strength of Taiwan's armed forces is assessed to be sufficient. Taiwan's population of 19.6 million is large enough to support the military personnel requirements.

However, in analyzing the influence of the population/society on Taiwan's conscript system, the consideration of the native Taiwanese who number some 17 million is important. This group, which outnumbers the mainlanders by about six times, constitutes the main manpower pool for the conscripts as well as the reservists. (The native Taiwanese currently make up about 85% of the total military force.) Besides providing the quantity of manpower required, the younger native Taiwanese conscripts were needed to replace the older soldiers of the original KMT army in order to modernize the military force. With the influx of the native Taiwanese, it was hoped that the traditional problems of poor discipline and corruption associated with the fledgling KMT armies would be eliminated. The successful integration of the native Taiwanese into the armed forces is vital for Taiwan's defense. Given the segregation between the mainlanders and the native Taiwanese, it is unlikely that an all-volunteer system could have attracted the native Taiwanese in large numbers into the armed forces. Conscription hence provided the only solution during those

crucial years of nationalist China's survival and consolidation in Taiwan in the 1950s. Significantly, conscript military service which affected directly and indirectly the population at large became simultaneously a vital means through which a common national unity shared by native Taiwanese and the mainlanders could be forged. Moreover, given Taiwan's martial rule which lasted until 1987, the introduction of conscription also had a role to play in the maintenance of internal security.

ECONOMIC CONSIDERATIONS (STEP 6)

Economic considerations essentially operate as a feasibility constraint on a country's decision on its military system. That means that by themselves, economic considerations are not the starting basis on which a country plans for the type of armed forces it requires. Primary factors, like threat assessment, geography and defense policy, are usually first analyzed to determine the military system needed. The feasibility of the desired system is then measured against economic considerations. However, if the economic cost of the preferred option is beyond the nation's means to support, an alternative system must be considered. For small developing countries faced with limited resources and considerable developmental needs, economic considerations often become a very significant constraining factor for the ultimate decision on the type of military force they can support.

Singapore. Faced with the need for effective deterrence, the economic cost involved in maintaining a large all-volunteer armed force is extremely high. Besides the personnel cost, there is the large financial outlay required for the purchase of military hardware and also construction of facilities. Economic considerations rule out the viability of maintaining a large size all-volunteer SAF.

However, other intangible economic considerations concerning the conscript system have to be examined. Conscription represents a substitution of the high military expenditure associated with a large all-volunteer force with the time and services of the conscripts for the period of their national service as well as reserve service. Moreover, given the fact that the military and non-military sectors share the same small population base of Singapore, conscription constitutes a diversion of scarce manpower resources from its economy. It means that the bulk of young male Singaporeans are excluded from the labor force for the period of their national service. Conscription therefore incurs a social cost which may be regarded as a tax borne by Singaporeans directly (by conscripts and reservists) and indirectly (by society at large in terms of deprived manpower resources).

On the other hand however, conscription may not have constituted a serious disruptive drain of manpower from the economy as the conscripts are generally enlisted for national service prior to their entry to the labor market. In fact, during

the initial years of Singapore's independence, the introduction of conscription provided the needed employment to absorb the large number of job-seeking fresh school graduates each year. It also took up part of the slack in employment opportunities that was caused by the withdrawal of the British troops from their Singapore bases.²³ For the late 1960s and early 1970s, conscription in effect contributed to maintaining a low unemployment rate in Singapore.

However, as the Singapore economy develops and the labor market becomes tighter with increasing job opportunities, the economic constraint of having large manpower commitment in the SAF will increasingly pose a limit to the expansion of the SAF. This, coupled with the declining population growth rate, will become a challenge for the maintenance of the conscript system in Singapore in the near future.

Taiwan. Many of the economic considerations discussed concerning Singapore are applicable to Taiwan. Earlier analysis established Taiwan's requirement for a large armed force and the need to constantly modernize its military force so as to retain the qualitative edge over the PRC.

In the early 1950s, Taiwan's economy was in very poor shape and was facing an uncertain future. Without conscription, it was financially impossible for Taiwan to raise a large standing force and at the same time seek to modernize its military. As with Singapore's situation, conscription also

contributed to the provision of employment for the large segment of the young Taiwanese. As the Taiwanese economy grew and with the receipt of large amounts of U.S. aid, economic considerations became less important as a constraint. Even with the loss of U.S. aid since 1979, the strong and growing Taiwanese economy has been able to support its large defense expenditure. With its relatively large population, Taiwan also does not face the constraint of manpower shortage with its economic development. Given the lower cost associated with a conscript force than an all-volunteer force, and that manpower commitment is not a constraint to the Taiwanese economy, economic considerations favor the maintenance of a conscript system in Taiwan.

For the two countries, economic considerations therefore support the adoption and maintenance of a conscript system. Conscript enables Singapore and Taiwan to maintain a large standing armed force (necessitated by the factors analyzed earlier) at a significantly lower economic cost than that required to provide for an all-volunteer force of equal size. More military funds become available for force equipping. Within the national budget, defense spending is also kept lower than what it would have been with an all-volunteer force, allowing for more resources to be allocated to other developmental needs like education and health. At the same time, the conscript system contributed to the alleviation of unemployment problems in the two countries during the initial period of its

introduction. On the whole, the economic costs (including intangible costs borne by the citizens) for maintaining a conscript armed force appear to be within reasonable supportable limits of the two countries.

SUMMARY (STEP 7)

From the analysis of the various factors in Steps 1 to 6, the key considerations in the two countries' adoption of the conscript system are summarized below.

For Singapore, the most crucial factor that dictates its need for a strong defense is its vulnerability resulting from its geographical size, location and terrain. This geographical vulnerability is closely inter-related with the threat perception of having to adequately prepare to meet any potential external threats. Consequently, Singapore's defense policy, as determined by its geographical vulnerabilities and threat perception, is logically one of credible deterrence backed by sufficient military capability, and a supportive and well prepared population. This establishes the need for a large military force comprising a substantial active component which provides constant security and a large reserve force that can be mobilized rapidly when needed. Considering also the constraints imposed by its small population base, the social attitude affecting the manpower pool of volunteers for the SAF, the economic considerations as well as the historical circumstances during the initial years of SAF's formation, a conscript system was and still is the most viable

and feasible solution to meet Singapore's defense needs. The conscript system is also intended to contribute towards attaining a more balanced racial composition in the SAF as well as nation-building through social integration.

In the case of Taiwan, the overriding concern for its defense is the threat perception and the balance of power between itself and the PRC. The PRC's quantitative superiority in manpower and weapon systems intensifies Taiwan's defense needs. The geography of Taiwan constitutes a "mixed" contributing factor in that the size, insular characteristics and terrain of the main island contribute positively to Taiwan's defense, while the size and proximity (to the PRC) of Quemoy and Matsu complicate Taiwan's defense considerations. Combined, the threat of a PRC military invasion and the vulnerability of the two contested offshore islands necessitate that Taiwan maintain a large military force. In addition, there was the urgent need to reinforce the KMT forces during the crucial years of the 1950s with younger soldiers. Conscription provided a convenient, and given the historical circumstances, possibly the only viable solution to Taiwan's defense problems. Economic considerations further provide support for the adoption and maintenance of an economical conscript force as compared to an otherwise very expensive large all-volunteer armed force. However, relative to the other factors analyzed, economic considerations in Taiwan's case do not constitute a crucial binding factor, especially given

its earlier access to U.S. aid and its successful economic growth. The conscript system is also intended to contribute to integrating the native Taiwanese and the mainlander Chinese so as to achieve national unity.

The impact of the various factors influencing the two countries' adoption and continued maintenance of a conscript system is summarized in Table 1. The relative significance of a factor in affecting the adoption of a conscript system in the respective country is represented as follows:

F : Major factor

f : Minor factor

N : Not an effective factor

C : Major constraint

c : Minor constraint

* : The influence of geographical factors on Taiwan's adoption of conscript system is divided into:
Effect on the main island/Effect on Quemoy and Matsu.

**TABLE 1 - SUMMARY OF FACTORS AFFECTING THE ADOPTION OF A
CONSCRIPTION SYSTEM FOR SINGAPORE AND TAIWAN**

FACTORS	SINGAPORE	TAIWAN
1. GEOGRAPHY	F	N/F*
a. Size	F	N/F*
b. Location	F	N/F*
c. Terrain	F	N/F*
2. THREAT PERCEPTION	F	F
a. Specific Threat	N	F
b. General Threat	F	f
3. DEFENSE POLICY	F	F
a. Need for a large standing force	F	F
b. Need for a reservist pool	F	F
c. Need to galvanize the nation's participation in defense	F	F
4. HISTORICAL CIRCUMSTANCES	F	F
a. Urgency in raising a large military force	F	F
b. Country facing war or immediate threat	N	F
5. POPULATION/SOCIETY	F	F
a. Population size relative to threat(s)	F	F
b. Population base for conscription	C	C
c. Literacy rate of population	f	f
d. Societal attitude towards national defense	C	C
e. Need for balanced racial composition in military force	F	F
f. Use of conscription for social integration	F	F
g. Conscription contributes towards maintaining internal security	N	f
6. ECONOMIC CONSIDERATIONS	f	f
a. Cost of maintaining a large all-volunteer force	C	C
b. Intangible cost borne by conscription/society	C	C
c. Conscription contributes towards employment	f	f

CONCLUSION

This comparative analysis of Singapore and Taiwan shows that the rationale for the two countries' adoption of a conscript system can be found in a combination of inherent factors and constraints as well as the national objectives (both military and non-military). Certain factors are of overriding importance while others have less binding influence.

Although there are specific differences concerning the influence of certain factors, the analysis highlighted the significance of several common factors that are applicable to both Singapore and Taiwan. These conclusions suggest the possibility of applying the generalizations drawn from this comparative case study to other similar small nation-states so as to explain their adoption of a conscript military system. Such an exercise will be left to Chapter Six, the overall conclusion to this paper. Having examined the "causal aspect" of the conscript system in Singapore and Taiwan, the study will proceed to analyze in the next chapter the effects of the conscript system.

ENDNOTES

¹ The analytical framework draws the pertinent points from several sources which include Cohen's Citizen and Soldiers, Foot's Men in Uniform and Stern's The Citizen Army. Relevant factors and methodology from the Department of Joint and Combined Operations' Strategic Analysis Model (which included an assessment of the nation's elements of power) and the Format for Revolutionary Warfare Analysis (which included an analysis of the nature of the society) are also selectively adapted. However, the construction of the model for analysis as well as the incorporation of the considerations in the analytical framework are solely the responsibility of this author.

² The statement is based on broad generalization and there are of course exceptions. However, this author's research of the small countries as defined does support such generalizations. See Eliot A. Cohen, Citizens and Soldiers (London: Cornell University Press, 1985), 25-29.

³ Besides Singapore and Taiwan, the other 3 small island nation-states with a conscript military system are Cyprus, Cape Verde and Seychelles.

⁴ The city-state of Singapore is also highly urbanized (the second most urbanized country in the world according to one survey) and densely populated (with an average of 4,000 inhabitants per sq. km.). These two facts, combined with the geographical vulnerabilities of Singapore, further complicate the territorial defense of the country.

⁵ Mr S. Rajaratnam said this in a Dyason Memorial Lecture which he delivered in Perth, Australia in 1973.

⁶ Interview of Dr. Yeo Ning Hong in "Regional Viewpoint", International Defense Review (December 1986), 10.

⁷ Mr. Goh Chok Tong said this in his 1987 SAF Day message which marked the 20th year of national service in Singapore.

• As discussed in Chapter Three, Quemoy and Matsu are less than 20 km away from mainland China. At the closest point, Quemoy is only 3 km away from the PRC. (See Appendix C).

• Cohen, Citizen and Soldiers, 26-27.

¹⁰ ASEAN, which stands for Association of South East Asian Nations, comprises the Philippines, Thailand, Malaysia, Brunei, Indonesia and Singapore.

¹¹ Singapore's Prime Minister, Mr. Lee Kuan Yew's speech to SAF officers during the 1987 SAF Day dinner as reported in The Straits Times (Singapore), 3 July 1987.

¹² Ibid.

¹³ During the Japanese occupation of South East Asia, Singapore, renamed Syonan (Light of the South), was made the capital of the Japanese East Asia Co-prosperity Sphere.

¹⁴ "Regional Viewpoint", 10.

¹⁵ M.L. Lasater and L.J. Lamb, "Taiwan: Deterrence to Remain Unchanged," Pacific Defense Reporter (June 1985), 38.

¹⁶ For instance, Deng Xiaoping, in a meeting with the speaker of the Japanese House of Councillors on 22 July 1985 said, "The formula of 'one country, two systems' for the peaceful settlement of the Hong Kong issue can be fully applied to the Taiwan issue. But we cannot promise not to use force forever, because if we make such a promise, we will never be able to hold peace talks with Taiwan."

¹⁷ M. Lasater, Taiwan - Facing Mounting Threats quoted in The Straits Times (Singapore), 15 September 1987, 18.

¹⁸ Cohen, Citizens and Soldiers, 29.

19 "Regional Viewpoint", 10.

20 BG(Reservist) Lee, the Second Minister for Defense, explained this thinking as follows: "We are not just a poison shrimp. We do not go on the basis that if someone attacks us, we will hit them and hurt them. But we will go on the basis that we will hit them and we will be around to pick up the pieces at the end." See "A Conversation with General Lee," Asian Defence Journal (November 1984), 5.

21 Much of the SAF military system was modelled after the Israeli (conscript) military system which has a compressed training system suitable for adaption to the Singapore context.

22 Cohen, Citizens and Soldiers, 26-27.

23 The stationing of British troops in Singapore accounted for 25% of Singapore's GDP and provided employment for some 25,000 Singaporeans. The declared withdrawal of British troops from Singapore by 1971 was understandably a matter of concern for the Singapore economy and its employment situation.

CHAPTER FIVE

THE EFFECTIVENESS OF THE CONSCRIPT SYSTEM FOR SINGAPORE AND TAIWAN

INTRODUCTION

The effectiveness of a country's military system is usually measured by its performance in battle. This view however restricts the concept of effectiveness of a military system.

Effectiveness of a system is defined as the ability to produce the desired effects or results. In this sense, the effectiveness of a military system is related to the achievement of the country's defense policy and national objectives.

A country's military system undergirds its military power, which is applied together with other elements of the nation's power (geography, politics, economics, and national will) to achieve national objectives both in wartime and peacetime.¹ However, the role played by the military and its interrelationship with the other elements of national power differs between wartime and peacetime. During wartime, the

military assumes the dominant role in achieving the objective of gaining victory over the enemy, and it is supported by the country's geography, politics, economics, and national will (see Figure 2). The effectiveness of a military system is thus directly related to its performance in battle.

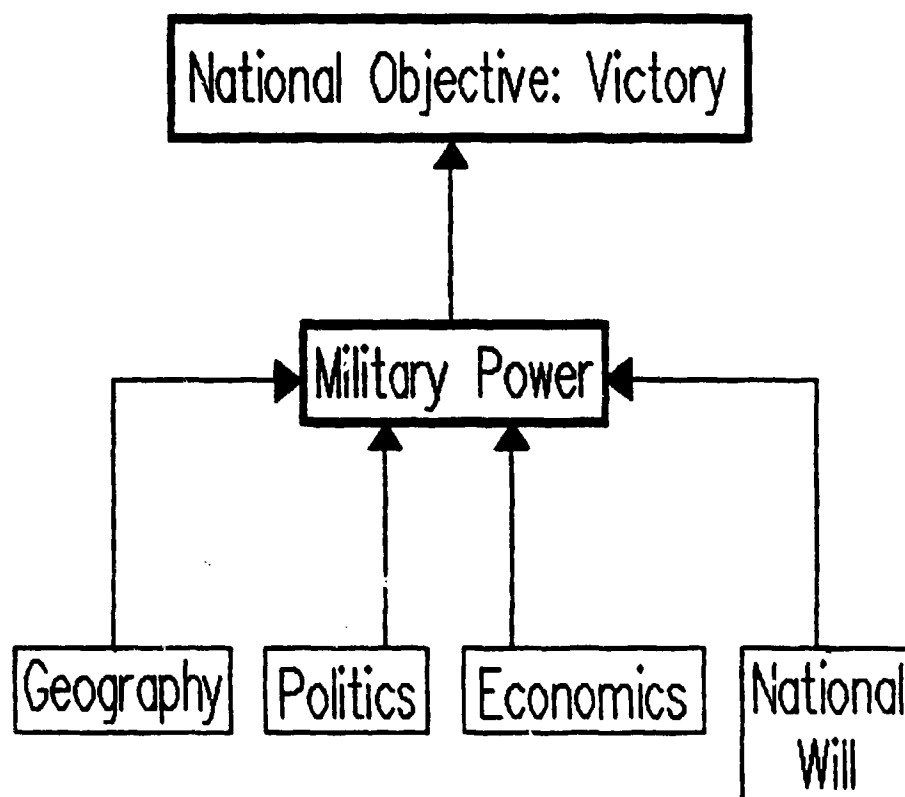


FIGURE 2 - ROLES OF THE ELEMENTS OF NATIONAL POWER DURING WARTIME.

During peacetime however, the overall national objective is not military victory but national development and security. Military power plays the key role in providing for the nation's security, together with the other elements of national power (see Figure 3).

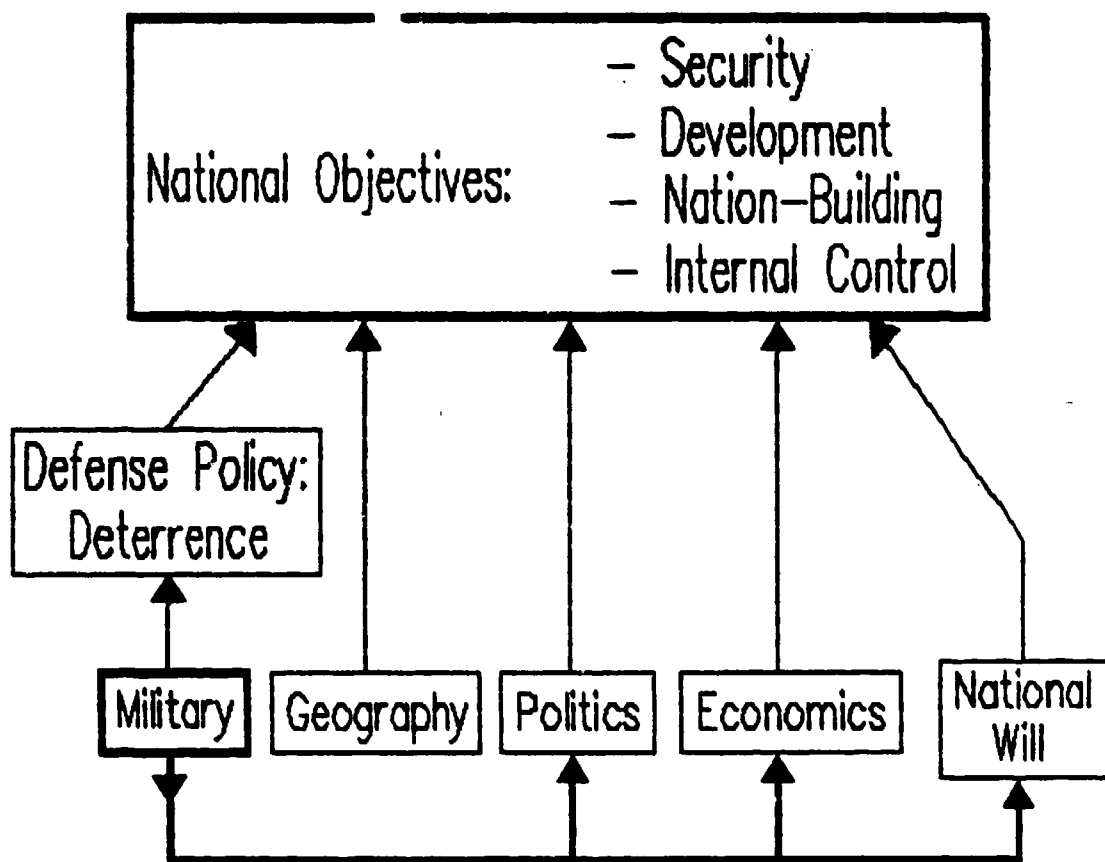


FIGURE 3 - ROLES OF THE ELEMENTS OF NATIONAL POWER DURING PEACETIME.

The effectiveness of a military system is linked to the country's defense policy. Paradoxically, for countries like Singapore and Taiwan that based their defense policy on deterrence, the fact that their armed forces have not been committed into military action with an adversary may indicate the efficacy of the military system in providing a credible deterrent. For these untested armed forces, their operational efficiency must be measured by criteria other than their performance in battlefield.

Besides its role in national security, the military during peacetime also supports the other elements of national power in attaining internal national objectives, e.g., economic development, nation-building and internal control (as indicated in Figure 3 by darker lines). The effectiveness of a military system thus includes its contribution to the attainment of these internal national objectives. Moreover, as a conscript military force is closely related to the society, its effectiveness includes consideration of its impact on the social, political, and economic aspects of the country.

The effectiveness of the military system for a country therefore encompasses two essential elements:

- a. Effects of the military system on the operational readiness of the country's armed force (the military effects.)
- b. Effects of the military system on the country's national objectives, society, politics and economy (the non-military effects.)

To analyze the effectiveness of the conscript system for Singapore and Taiwan, a postulated model incorporating various criteria is used. These criteria are divided into four military considerations and four non-military considerations, as depicted in Figure 4.

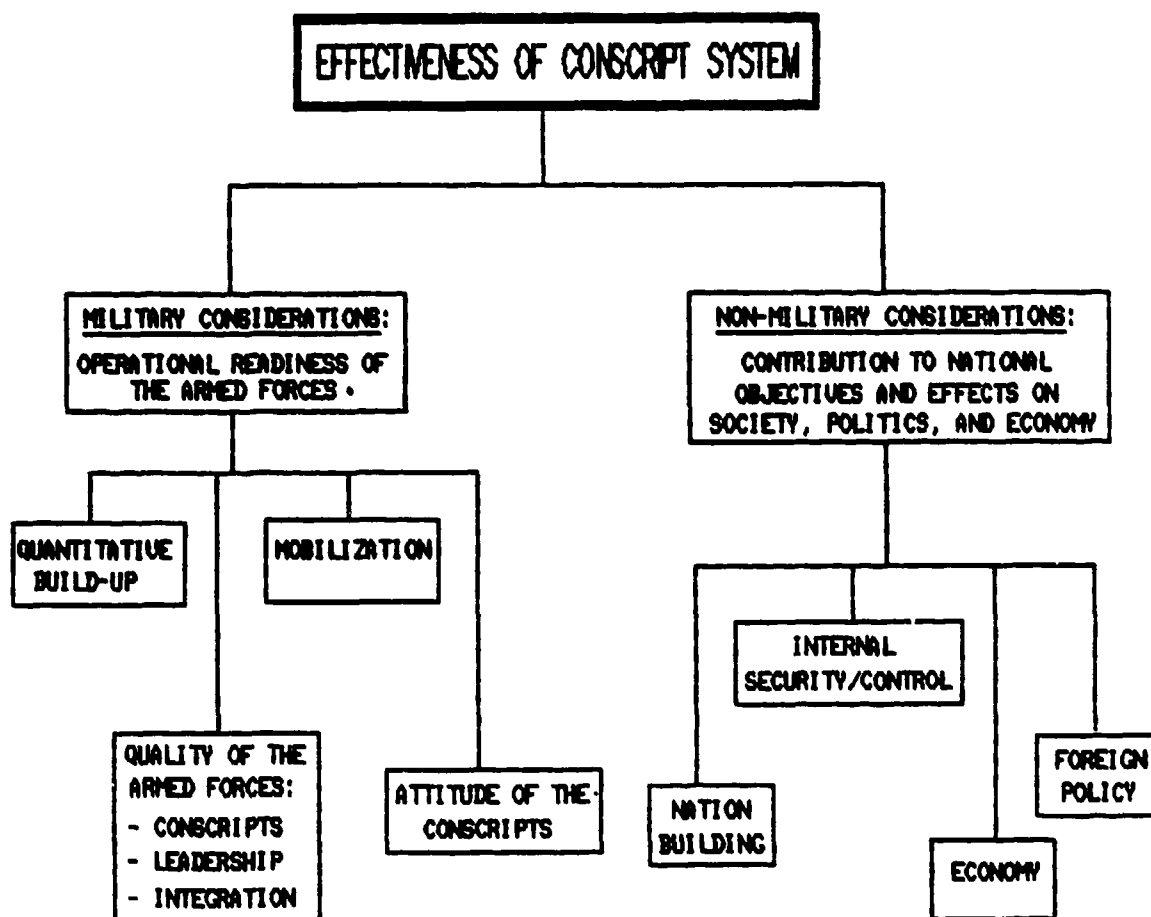


FIGURE 4 - FRAMEWORK FOR ANALYZING THE EFFECTIVENESS OF A CONSCRIPT SYSTEM.

QUANTITATIVE BUILD-UP

The historical development of conscript systems was rooted in the need for large armies. In the late eighteenth century and the nineteenth century, conscription provided the means through which relatively small warring European states were able to create mass armies. For instance, with the declaration of the *levee en masse* in 1793, the military strength of the French army grew swiftly from 264,000 men in August 1793 to 749,000 by September 1794, a three-fold increase in 12 months. This creation of large armies significantly affected the development of modern warfare in terms of the organization of armies and tactics. By 1871 most European states maintained mass armies by means of various forms of conscription.

In the twentieth century, conscription has also been used to meet urgent large manpower requirements in every major military conflict. Modern warfare is characterized by high casualty rates, due to the lethality of modern weapons and the non-linear nature of the battlefield. This necessitates the use of large forces as well as dependence on a large pool of combat replacements. All-volunteer armed forces, though often adequate during peacetime, proved grossly inadequate to meet wartime requirements. Conscription provided the required quantitative base.

For small countries constantly contending with external threats from more populous neighbors, conscription affords the ability to maintain a large fighting force by tapping to the

fullest extent the limited manpower base. For example, Israel, with a population ten times smaller than that of Egypt, was able within a few days of mobilization to deploy approximately the same number of soldiers. In another example from an earlier period, shortly before World War I, France was able to overcome its population inferiority of two to three *vis-a-vis* Germany through conscription and raised its military force to about equivalent strength.

A most significant military utility of a conscript system for a small country is thus founded in its quantitative potential to:

- a. Provide the means for the country to significantly increase the size of its armed force within a short time.
- b. Enable the country to maintain a large standing force.
- c. Create a large reserve force which when mobilized forms the main fighting strength of the country.

For this reason, the analysis of the effectiveness of the conscript system for Singapore and Taiwan begins with an examination of its quantitative aspect.

Singapore. The analysis in Chapter Four established the need for Singapore to have a large military force in view of its geographical vulnerabilities, threat perception and defense policy. The historical circumstances during the initial years of Singapore's independence in 1965 also necessitated a rapid

build-up of the SAF within a short period of about five years so that an adequate military force had to be in place to fill the defense vacuum when the British forces pulled out in 1971.

At the time of Singapore's independence, the SAF consisted merely of an army with only two infantry battalions, a navy with three wooden ships and no air force. By 1987, the twentieth year since the introduction of conscription in 1967, the conscript system supported the build-up of the SAF from its original strength of 1,000 men and 50 officers to its present total strength of 250,000 including 3,000 officers.

Though in absolute terms the size of the SAF is relatively small compared to many other armed forces among Third World countries, the strength is significantly large when viewed in proportion to Singapore's small population base. A recent article reported that the "soldier/civilian ratio" in Singapore is the fourth highest in the world.² By comparison, Australia has a population of about 16 million and a total military force strength (based on an all-volunteer system) of approximately 100,000. Singapore has a population about one-sixth that of Australia and an armed force about twice as large. For another comparison, the island-nation of Jamaica has a population (2.3 million) roughly the same as that of Singapore (2.6 million). The all-volunteer armed force of Jamaica has a total strength of 3,200, about 1.28% that of the SAF. One can conclude that the conscript system is highly effective in

providing Singapore with the large armed force necessary for its external defense.

Given the time constraint for Singapore's required establishment of an adequate military force in the 1960s/70s, the conscript system was efficiently suited to support the rapid build-up of the SAF's manpower strength. The first batch of conscripts drafted in 1967 was released into the reserves in 1969. By the end of 1970, there were three reserve battalions. As each batch of conscripts completed its national service, new reserve units were formed and organized into reserve brigades. The planned rapid numerical build-up of forces began with the army (starting with the infantry units and then phasing in the combat service support elements) and was followed by the air and naval services. The conscript system was effective in attaining the rapid force build-up of the SAF in its crucial formative years.^a

Taiwan. Taiwan's need for a large military force in view of the threat it faces from the PRC was discussed in Chapter Four. Given the large size of the People's Liberation Army (PLA), the numerical strength of Taiwan's armed force is a vital part of its deterrent capability. Considering the overwhelming imbalance in the population of the two countries, the conscript system has been effective in allowing Taiwan to significantly narrow the quantitative gap between the two armed forces, though the absolute difference is still large. China's population of one

billion (a quarter of the world's population) exceeds that of Taiwan (19.6 million) by at least fifty-two times. Yet, the size of the PLA is only about ten times larger than Taiwan's armed forces, and the gap is decreasing with the PLA's reduction in its forces in recent years.

Taiwan's armed forces personnel form about 10% of its entire population. This is a comparatively high proportion among all other countries in the world, and it is the second highest in Asia, next only to South Korea. Comparing Taiwan to another country of similar population size such as Kenya, the relatively large size of Taiwan's armed forces becomes even more obvious. Kenya's all-volunteer armed forces number 14,000, which is only 0.7% the size of Taiwan's armed forces. .

Therefore, the conscript system is effective in providing Taiwan the quantitative strength it needs for its defense. Moreover, as mentioned in Chapter Four, the infusion of a large number of young conscripts provided the reinforcement and replacement urgently needed by the KMT forces during the tense period of the 1950s. Although the nationalist troops that withdrew from China to Taiwan in 1949 numbered 800,000, only 300,000 were combat troops, and the majority were relatively older men. The conscript system provided the manpower base needed to regenerate Taiwan's armed forces.

THE QUALITY OF THE ARMED FORCES

The quality of conscript force has been appraised both positively and negatively. The positive view regards the introduction of the conscript system in the eighteenth century as a revolutionary change in the development of modern armies which decisively altered the continental balance of power. Conscription allowed nations to draw their military strength from the entire citizenry and thus tapped the latent talent of the people as a whole. Armies based on all-volunteer systems often faced (and still do today) significant difficulties in attracting the required number and calibre of soldiers. Those armies of volunteers consequently did not represent a true cross-section of the people. With the *levee en masse*, conscription replaced the mercenary soldiers usually drawn from the lowest classes of the society with soldiers endowed with an "invincible plan."⁴ This led to revolutionary developments of more effective organization and tactics, with emphasis on individual initiative and better leadership. As history showed, "the small rigidly drilled but spiritless armies with which the European monarchs had been accustomed to playing fine games of strategy were no match in size, tempo or tactics for this French revolutionary onward sweep of fire-spreading crusades."⁵ In this view, conscription significantly raised the quality of a modern army.

On the other hand, the negative view regards conscription as a coercive means through which a state exploits the service of citizens in maintaining sizable armed forces at

low cost. Conscripts merely provided the "brawn" to make up the numerical requirement of the military need while the leadership and power were typically concentrated in the hands of professional cadre. The conscripts were pushed through compulsory military service and subsequently retained in the reserve force for a long period. The high turnover of conscripts in the active army affected units' team spirit. The existence of the three distinct components of regulars, conscripts and reservists also resulted in different levels of operational readiness. Conscription provided the military force with mass but diluted its quality.

The quality of a conscript armed force is the most difficult among all the criteria to analyze. Not only is the qualitative assessment of a military system very subjective, it also encompasses many dimensions. Being closely linked to the overall operational readiness of the military force, it is related to other criteria like mobilization and the attitude of the conscripts. However, to analyze these other aspects in some detail, they will be considered separately.

The armed forces of Singapore and Taiwan are both untested in combat. Their quality must therefore be measured indirectly by examining the key factors that undergird the efficiency of their conscript force. This analysis will be performed in terms of the quality of the conscripts, the leadership and the integration among the various components. As an additional indicator of the quality of the two armed forces,

comments about them in military literature or other external sources (i.e., sources not originating from Singapore and Taiwan) will be cited.

Singapore. The conscripts form the bulk (60%) of the active force, and on completion of national service they become part of the reserve force which comprises 80% of the total SAF. At any one time, 30,000 Singaporeans are serving their conscription, and another 200,000 are part of the reserve force in the SAF. According to a so-called "transmission belt theory," the society and the armed forces are so closely intertwined that the quality of the armed force is merely a reflection of the society from which its troops are drawn.* The validity of this theory is debatable, as the armed forces as a distinct institution very often has a significant influence on its members. Nevertheless, with the conscripts and reservists forming the bulk of the SAF, their quality as soldiers will certainly affect the overall efficiency of the armed forces.

Two aspects positively influence the Singaporean conscripts' quality as soldiers. First, they generally have the capacity for hard work and discipline reflective of the Singapore population, which could be attributed to their cultural values or the migrant race heritage of the Singaporeans. This facilitates the intensive training that the conscripts undergo during their two-year national service. Second, the conscripts are generally literate, and the overall literacy rate is rising given the

compulsory education system in Singapore since its independence. This facilitates the learning of military knowledge as well as training with modern military equipment. With the learning of English through the school system, English increasingly serves as the common language in SAF training, enhancing communication with and among the conscripts of various races. Communication was a problem for the SAF in the early years of the conscript system due to the lower literacy rate and the lack of a common language. Doctrine was written in English, but orders and instructions had to be given in different languages to conscripts who were sometimes organized according to linguistic groupings.

Two aspects negatively affected the quality of the conscripts in the early years. First, military service was accorded low prestige in the traditional value system, especially among the Chinese. Second, the population was traditionally not involved and was uninterested in national defense. These two negative aspects posed a challenge to the government and SAF leadership in their effort to raise an efficient armed force with the conscript system. If uncorrected, they would undermine the commitment of the conscripts in national service. Serious efforts were undertaken to motivate the conscripts and to instill a sense of pride in military service. (These will be discussed in greater detail under "Attitude of the Conscripts.")

On the whole, the quality of the conscripts contributes positively to the operational efficiency of the SAF. The

conscript system provides the SAF access to manpower resources that comprise all young men of conscription age. This includes the brightest students of every batch of school graduates, sportsmen, and future professionals. From this pool, the most suitable are selected after their basic military training for NCO and officer training. They subsequently become junior leaders (section leaders and platoon commanders) and serve an additional six months of national service. On release into the reserve, these officers and NCOs form the bulk of leadership in the reserve force and are upgraded in rank and appointment through additional military schooling. Leadership positions up to company commander in the reserve force are all filled by reserve officers. Battalion commander posts are increasingly being filled by reserve officers, though they are augmented presently with regular officers holding reserve appointments as their concurrent appointments.⁷ Some reserve officers who were ex-regular officers released into the reserves after attaining at least battalion level command have already been appointed as reserve brigade commanders. The intention is to have reserve officers filling all the leadership positions in the reserve force up to at least battalion level command and, if possible, brigade command.

Taiwan. Like Singapore, conscripts and reservists form the bulk of Taiwan's armed forces. At any one time, there are more than 1.5 million citizen-soldiers (conscripts and reservists.) The

quality of these conscripts and reservists is therefore a significant factor for the efficiency of the armed forces.

Much of the same analysis about the quality of Singapore's conscripts is applicable to that of Taiwanese conscripts. The Taiwanese young men of conscript age are generally literate, given Taiwan's high literacy rate of about 89% and compulsory schooling system for all citizens up to Form 9 (16 years old.) The conscripts are also generally disciplined and diligent, being brought up in traditional Confucian culture. Moreover, though there are different dialects, all Taiwanese speak Mandarin, the national language. This greatly facilitates communication and training in the armed forces. As in the case for Singapore, efforts have to be taken to raise the conscripts' commitment to their military service, which directly affects their quality as soldiers. (This will be further discussed under "Attitude of the Conscripts")

The quality of the Taiwanese conscripts in general provides a good basis upon which an efficient armed force is built. The conscript system allows the armed forces to pick the best from each batch of young men of conscript age to fill the junior leadership requirement in the active and reserve force. All fit male college graduates are required to undergo rigorous selection examinations to seek qualification into officers' schools. Conscripts who are commissioned as officers usually serve the short remaining period of their national service (less the period in military schools) in active units before being

released into the reserves. They are provided refresher training each year as reservists and can be promoted in the reserve force. However, they generally do not fill positions of company commander and above which are manned mainly by regular officers. Nevertheless, these officers by meeting the junior leadership appointments release more of the regular officers to hold appointments at higher level.

Conscription has therefore been effective in providing the armed forces of Singapore and Taiwan with a large base of quality manpower which would otherwise not be available to an all-volunteer force. The conscript system has also provided the bulk of their junior level leadership in the active and reserve units, which an all-volunteer system would not have attracted in the quantity and quality required.

In a three-tier armed force like that of Singapore and Taiwan, the successful integration of the regulars, conscripts and reservists is as vital to the efficiency of the total force as having quality in the various components. There are two possible factors inherent in a mixed military system that may negatively affect the integration among the components of the armed forces. First, given the difference in time available for training among the three components, there may be a disparity in operational efficiency. Second, there may exist a lack of team spirit among the three components due to mistrust of each other or a lack of opportunities to train together.

Singapore. During the first decade (from 1966 to 1976) of SAF's formation, emphasis was placed on its rapid quantitative build-up with less attention being paid to the qualitative aspects of force development. There were resultant differences in standard of commitment and competence, and also a lack of integration among the various components. However, with the attainment of substantial quantitative build-up, the shift in emphasis (since 1976) to the qualitative upgrading of the SAF has seen serious effort in integrating and securing uniform standards among the various components of the SAF. The main steps in this direction include:

a. Emphasizing through various communication channels in the SAF as well as nationwide that the reserve component is the main fighting strength of the SAF, and that contrary to what the term popularly suggests, reservists are front-line combat troops.

b. Including reserve officers in advanced level and Command and Staff College courses for regular officers.

c. Conducting reserve training (including overseas exercises) and tests similar to that undertaken by active units.

d. Involving reserve commanders in the planning and conduct of training.

e. Using the same reporting system for the appraisal of both regular and reserve officers' performance and potential.

In this author's view, these efforts have been relatively successful in raising common standards of training efficiency for active and reserve units; in instilling a sense of pride in the reserve component, and in enhancing mutual understanding between regular and conscript/reserve officers of the SAF.

Taiwan. Although the armed forces of Singapore and Taiwan have the same three components, they are organized quite differently. While the SAF reservists are organized into organic brigades and units (generally released into the reserve as an entire unit), reservists in Taiwan are organized under administrative groupings according to regional zones. Each reservist retains his branch and fills wartime requirements based on his specialized training during active service. Generally the reservists are assigned to designated units, but these are not necessarily the same units they served in during active service. Compared to the SAF organization, the Taiwanese system has more flexibility in deploying the reservists, but there is less unit cohesiveness. The retaining of reservists in the same unit in Singapore's context is made possible by the small size of the country. Given the much larger size of Taiwan and the resultant dispersal of the reservists, geographical grouping of reservists is the most viable solution. Conscripts generally serve in units stationed far away from their hometown, and it is therefore extremely impractical to retain them in the same unit upon their release to the reserve. Therefore, the relative loss of unit

cohesiveness and integration must be balanced against considerations of expediency for reserve training and mobilization, for which a flexible grouping by region would be most advantageous.

Overall, the conscript system has been effective in enhancing the quality of the armed forces in Singapore and Taiwan. This conclusion is well supported by a survey of external reports/articles that comment on the efficiency of the two armed forces. All the articles surveyed have positive comments on their efficiency and several of these sources directly link the efficiency with the conscript system. A sample of these comments is listed in Appendix E.

MOBILIZATION - CAPABILITY AND CONSTRAINT

For armed forces that have the bulk of their strength in the reserve force, mobilization is vital. For Singapore and Taiwan, the dependence on mobilization acts as a limitation to the operational efficiency of the armed forces in several ways:

a. The two countries are vulnerable (compared to a large standing armed force) to a surprise attack before they have fully mobilized their reserves.

b. Given the fact that the armed forces share the same manpower pool with the rest of the economy, a large-scale mobilization will curtail the effective functioning of the economic and social institutions in the two countries. Many of the key personnel in the economic sector and the civil service

who are also reservists will have a conflict in responsibilities, particularly when their civilian roles contribute to the defense capability of the nation. Therefore, Singapore and Taiwan with their dependence on mobilization cannot afford to wage a long war.

c. The need to mobilize before the armed forces can be fully effective limits the two countries' initiative in achieving strategic surprise.

d. The need for large-scale mobilization also means that the warfighting capability of the two nations is highly dependent on the ability of the leaders to secure the national will of the citizenry behind the war effort.

These implications constitute constraints that the conscript system imposes on the effectiveness of the armed forces of Singapore and Taiwan. While recognizing these as limitations to their operational efficiency, the armed forces of both Singapore and Taiwan have taken efforts to offset these disadvantages. They can be broadly classified as: first, enhancement of the capability to rapidly mobilize their forces and second, appropriate strategy and force equipping.

For Singapore and Taiwan, mobilization of the reserve is planned and regularly exercised. Both countries have within their mobilization plans the systems of silent recall (through established unit networks of individual contacts) and open mobilization (through mass media channels). The type of

mobilization plan to be used is dependent on the level of threat faced.

For Singapore, the existence of good communication systems (telephone system, radio, television and a good road network) greatly facilitates mobilization. Open mobilization exercises that have been frequently organized showed very successful results. In some cases, the units took less than six hours to be recalled and fully equipped. Reservists from mobilized units were activated to report to designated mobilization centers by the use of pre-arranged code words that were broadcast over the mass media. Upon reporting, the reservists were equipped for combat. Some mobilization exercises proceeded into deployment of the mobilized units for mission exercises. The reserve units' capability to mobilize rapidly is vital for SAF's operational readiness, and mobilization plans are regularly tested in exercises.

For Taiwan, the need for effective mobilization is also constantly being emphasized. The system in Taiwan differs from that of Singapore's in one main aspect. Given Taiwan's large size, mobilization is organized by geographical zoning rather than unit.

The vulnerability to surprise attack and also the need for time to mobilize the armed forces to full strength in the face of external aggression necessitate that the defense strategy of Singapore and Taiwan incorporate a good early warning intelligence capability, as well as the ability to strike deep. This is clearly reflected in their force equipping.

Given the need for early warning, fast response and the capability to encounter an external threat as far away as possible, the air forces of Singapore and Taiwan are the first-line defense for the two countries. Air defense is accorded very high priority. Air defense units are equipped with the best state-of-the-art equipment affordable and available.

Singapore's recent acquisition of the E-2C HAWKEYE AWACs has significantly enhanced its early warning capability.^a The current inventory of the air force includes F-5E/F TIGER II and A4 SKYHAWKS (re-engined by Singapore's defense industries), and it will probably be supplemented with F16 jets in the near future.

Taiwan's air force is one of the largest in Asia. Combat aircraft include F-100D, F-104A/D, F-104G, F-5F, F-5E and F-5A.^a These are supplemented by Taiwan's own air defense missile systems SKY BOW I and SKY BOW II.

ATTITUDE OF THE CONSCRIPTS

Conscription is in essence compulsory military service instituted by a nation's government through legislation and enforcement. It disrupts the personal plan of individuals for the period of their conscript service and their reserve obligation thereafter. It entails a hard life under military discipline and rigor and personal risks in training and operation. Conscripts are paid rates lower than what equivalent work in the civilian sector would command. All these considered, it is easy to

understand the criticism that a conscript system tends to produce soldiers who involuntarily serve their terms without a sense of commitment.

A real test of the effectiveness of a conscript system therefore lies in the ability of the system to create a sense of acceptance of the responsibilities and values associated with military service, and to instill a dedication in the conscripts' attitude towards the defense of their nation. Beyond this acceptance by the conscripts, the citizen-army concept must rest on the support of the entire citizenry for it to function efficiently. Thus, a key pre-requisite for the effectiveness of a conscript system is the establishment of its legitimacy and the national consensus required to carry it. As F.M. Stern wrote, "Once the nation envisages army training as the necessary preparation for the defense of its freedom and its security, . . the citizens no longer fear conscription, or suspect it as a danger to democracy. They demand it as their right."¹⁰

Singapore. As highlighted earlier, the cultural and historical background of the Singapore population did not naturally favor a conscript system during its inception in 1967. In fact, prior to Singapore's independence, an earlier attempt by the British colonial government to institute conscription with the passing of a National Service Ordinance in 1954 failed. There was lack of support from the people, particularly the Chinese community. Active opposition to the draft resulted in student unrest. The

policy was discontinued after one year during which only some 400 conscripts were drafted.

The government of independent Singapore in introducing conscription in 1967 had to secure the support from the nation necessary for the system to produce an effective military force. The need for conscription had to be justified. To achieve this, it was necessary to raise the understanding of the population for the need for external defense, the responsibility of every citizen towards national defense, and the equity in burden-sharing. Concerted effort was carried out by the government leadership to stress the need for national defense, to raise the image of the SAF, and to promote dedication in military service, or in short, to secure the acceptance of the conscript system. These actions included:

- a. Communicating with the population about defense issues through mass media and political grass-roots networks.
- b. Raising national consciousness through the education system.
- c. Establishing the credibility of the SAF through civil-military cooperation projects like road construction, social work, and assistance during national emergencies.
- d. Creating a sense of identity between the society and the SAF through planned visits to military camps and training grounds for community leaders, employers of reservists, parents of conscripts, and students.

e. Demonstrating an appreciation for a conscript's national service effort through district-organized send-off parties during enlistment.

All these efforts are ongoing in Singapore though they were most intensive during the initial years of the conscript system.

Through these efforts, there are increasing indications that conscription is being well accepted by the Singaporean population today. There is a substantial reduction in the requests for exemption or deferment from national service as compared to the early years of national service. Surveys conducted by the SAF also show that increasing numbers of Singaporeans believe in the importance of defense and national service. Parades, exhibitions and military displays organized by the SAF have attracted increasingly large turnouts. Conscripts and reservists are commonly seen in their uniforms in public, which is in contrast to the early years of the conscript system when servicemen generally preferred to wear civilian clothes while not on duty. Recruitment rates for all three services have also risen over the years. An editorial article entitled "Great Little Army" in The Straits Times (3 July 1987) points to this growing positive attitude towards the SAF: "There was a time when the public tendency was to shy away from a military career because it was just not worth it unless you were desperate. There is far less of that today."

Taiwan. Prior to 1949, conscription was already practised by the KMT government which was then controlling mainland China. However, the political environment under which conscription was instituted in Taiwan in the early 1950s presented a challenge to the Taiwan armed forces to create a committed attitude among the conscripts.

The Nationalist Army's presence in Taiwan preceded the establishment of the KMT government on the island in 1949. At the 1943 Cairo Conference, the United States and the Allied Powers agreed that with the defeat of Japan, Taiwan would be returned to China under Chiang Kai-Shek. Immediately after the Japanese surrender in 1945, elements of the Nationalist Army began arriving in Taiwan, ending a 50-year occupation by the Japanese. In 1946, friction began to surface between the mainland KMT military officials and the local Chinese population, the native Taiwanese. This led to the 1947 "February 28 Incident" in which some 85 officials and civilians were killed in riots. The reasons for the confrontation have remained a controversial and sensitive subject in Taiwan. Some accounts portrayed it as an uprising by the Taiwanese against the exploitative administration of the KMT officials. A confidential official report released recently after being withheld for 41 years mentioned three contributing reasons for the incident: the unrealistic expectation and demands of the Taiwanese, poor measures undertaken by corrupt officials in the administration, and incitement by the communists who were then fighting a civil

war in mainland China with the KMT. But whatever the cause, the incident which engulfed the whole island in clashes and demonstrations did drive a wedge between the mainlanders and the Taiwanese.

After 1949, with the enforcement of conscription in Taiwan, the Taiwanese youths were to form the bulk of the armed forces. The initial leadership structure of the armed forces naturally consisted predominantly of mainlanders following their withdrawal from China to Taiwan. For the conscript armed forces to be effective in preparing for their urgent task of defending Taiwan against the PRC threat, much needed to be done to secure the loyalty of the Taiwanese conscripts and to integrate them into the KMT-led armed forces.

A highly successful education program was used to raise the national consciousness of the people and to secure the acceptance of the conscript system. Such efforts which were intensely carried out in the 1950s/60s are still emphasized in Taiwan today. The constant threat from the PRC provides the most important rallying call for the unity of all people in Taiwan behind the defense cause. This theme is widely propagated through the education system, community organizations, public media and particularly through the military environment. Educational programs emphasizing the importance of military service were and still are a vital part of conscript military training in Taiwan. As more Taiwanese completed their conscript service, the effects of their political indoctrination and

acquired loyalty to the military are being transmitted to the civilian population. Beginning in the 1950s and continuing even today, Taiwan's military has been engaged in civil action programs to gain for itself civilian support. Soldiers routinely go to the countryside at harvest time to assist farmers and are involved in disaster rescue and relief operations. These efforts not only raise the prestige of the Taiwan armed forces but more importantly secure the population's acceptance of the conscript system.

An indication of the success in the government's effort in securing the commitment of the Taiwanese people towards national defense is reflected in this paragraph of a article in Free China Review: "Whether mainland or Taiwan-born, the people of the island are totally opposed to the communists If it were necessary to spend 99 per cent of the budget on defense, the people of the Republic of China still would favor the expenditure."¹

Considering both the cases of Singapore and Taiwan, several similarities emerge. Both countries faced a challenge in having to secure the acceptance of conscription among the population, especially in the early years of the conscript system. Both countries employ active programs to raise the commitment of the nation and the conscripts towards national defense. This commitment of the conscripts is in turn vital in undergirding the effectiveness of the armed forces in the two countries.

NATION-BUILDING

A conscript military system, especially when conscription is universally applied, closely links the armed forces to its society. Besides affecting the bulk of all males in the country, its influence is often extended to the families of the servicemen as well as the employers and colleagues of reservists. This close relationship between the armed force and the society carries the potential for the military system to contribute to the nation-building process.

A conscript system contributes to nation-building in two ways. First, conscription provides a common experience for citizens of different race, religion, educational background, and social status, thereby enhancing their mutual understanding and facilitating the forging of a national consensus. As observed by Cohen, military service brings a citizen-soldier into contact with his fellow-citizens. "For the time, at least, differences in wealth, education, locality, taste, occupation and social rank, which divide [them] are lost sight of. Men are brought face to face with the elemental fact of nationality."¹²

Second, military service provides a powerful channel through which national values are communicated to the conscripts and through them, to the society at large. This is especially so when conscripts are enlisted into military service at an impressionable age. The military hence constitutes a most effective institution for education and socialization, given its ability to reach a wide cross-section of the population.

Singapore. The pluralistic composition and the migrant heritage of the Singapore population makes the forging of a national identity for Singaporeans a very difficult task.

Before Singapore became independent in 1965, its three main races, namely, the Chinese, Malay, and Indian, lived in separate communities. Even among the Chinese, there were many dialect groups and they often did not intermix. The various ethnic groups were generally contented with peaceful co-existence, and interaction was only for purposes of economic transaction. This situation was due to the historical fact that Singaporeans are descendants of earlier migrants from China, Malaya, Indonesia and India who came to Singapore, then a British colony, in search of job opportunities. Their orientations were towards their respective home countries, and their security while sojourning in Singapore was found within their separate ethnic communities. The British colonial government then also found it convenient to keep the racial groups separated as communal conflicts had been a constant potential problem.

With this historical and social background, nation-building for newly independent Singapore was (and still is) a complicated but very essential national priority. The majority of Singaporeans at the time of Singapore's independence were born on the island and owed little loyalty to the respective homeland of their forefathers. However, the racial, cultural, religious and linguistic differences among the citizens hampered the process of social integration. Deliberate efforts had to be taken by the

government leaders to build national unity and a Singaporean identity out of the diverse races. The introduction of conscript military service in 1967 provided the government with a very useful vehicle for nation-building.

Over the period of twenty years since its inception, conscript service has contributed to the process of nation-building. As highlighted by Mr. Goh Chok Tong, Singapore's First Deputy Prime Minister, young men from different races, religions, and backgrounds trained, worked, and lived together in the SAF. "Their time spent together helps them to become more aware of their common problems and common destiny. It helps them to become Singaporeans." ¹³

The effectiveness of the Singapore conscript system in supporting the nation-building objective lies in its form of universal conscription and also the retaining of the servicemen within the same units both in active and reserve service. This "extraordinary comprehensive citizen-army concept of Singapore" was highlighted by Cohen when he opined that "the political significance of such a system lies in the fact that it incorporates the bulk of a country's male citizens, the mature as well as the young, the heads of families as well as their sons."¹⁴ Conscript service provides the bulk of the Singapore population a common index of shared experience cutting across racial, religious, cultural and educational barriers. It has a significant social levelling effect. As indicated by an article in The Straits Times, "the conscript military service is literally an

experience that leaves very few Singaporeans untouched."¹⁰

Nation-building requires a long period of a country's history. It would take many more generations before Singapore can successfully forge a national identity from its multi-racial population. However, over the short two decades of Singapore's history as an independent nation, the increasing national consciousness, the growing pride in the nation's achievement and the relative racial harmony are indications of the progress made in the nation-building process. The conscript system has certainly contributed positively to this process. Mayerchak in referring to the nation-building role of the SAF comments that its citizen-soldier concept is an "admirable one." It envisions a people imbued with the feelings of a nation and prepared with skills adequate for the defense of the state. He concludes that the SAF "cannot afford to rest on its accomplishments One would hope for the continued role of the military in the nation-building process."¹¹

Taiwan. The underlying friction between the mainlander Chinese and the native Taiwanese has been the main challenge in Taiwan's nation-building process for the last four decades. It is rooted in the historical circumstances under which modern Taiwan came into being in the 1940s.

The 1947 "February 28 Incident", as highlighted earlier, had precipitated an animosity between the two groups. When the two million mainlanders came with Chiang Kai-Shek to Taiwan in

1949, there was increased potential for conflict between them and the native Taiwanese. For those Taiwanese who resented the mainlanders, the KMT's subsequent domination of political power in Taiwan and the tight internal control through martial law represented an occupation of the island by the mainlanders.

One main issue of contention has been the independence of Taiwan. The radicals among the Taiwanese push for the establishment of Taiwan as a political entity separate from China, which is contrary to the official views of the KMT. There are also demands for a larger Taiwanese representation in the decision-making process of the country's political institutions and the military. Though Taiwan has enjoyed relative political stability over the four decades, there are instances like the 1977 riot in Chungli and the 1979 riot in Kaoshiung that indicate the underlying friction between the mainland Chinese and the Taiwanese. This potential conflict between the politically powerful mainland minority and the numerically superior Taiwanese majority poses a serious challenge to nation-building.

Despite these difficulties, Taiwan's effort in nation-building has been relatively successful. There are increasing indications of a national unity, integrating both the mainlanders and the Taiwanese. As observed by two researchers on the Taiwanese population, "whether mainlanders or Taiwanese, they generally present a common front to the outsiders ... which suggests that the two groups are beginning to feel or share a common identity."¹⁷ The researchers concluded from surveys

conducted among mainlander and Taiwanese respondents that the population in general supports the government leadership and there is greater social integration between the two groups.¹⁰ In another recent article, the author highlighted "the increasing integrated nature of Taiwan's society."¹¹ There is also growing participation of native Taiwanese in the military and political leadership. The current President of Taiwan, Mr. Lee Teng-hui, who succeeded the late President Chiang Ching-kuo in January 1988, is a native Taiwanese.

The success in Taiwan's nation-building process may be attributed to several contributing factors. These include the unifying cause of anti-communist feelings, the successful economic policies which raise the living standard of the people, and the increasing percentage of Taiwanese citizens who are born in Taiwan. These younger citizens, including descendants of both the mainlanders and native Taiwanese, have less concern for the historical conflicts between the groups. Given time, the distinction between the two groups will gradually diminish.

Among the contributing factors in Taiwan's nation-building process, the part played by the conscript system cannot be underestimated. Conscript military service brings together mainland and Taiwanese young men from different parts of Taiwan and from different social backgrounds. The conscripts are usually assigned to units that are far away from their hometowns. The shared experience among the conscripts provides

opportunities to build strong mutual ties and a common national identity.

The conscript system's most significant contribution towards Taiwan's nation-building however lies in its national education programs. As observed by Ross, "The military contribution to social development can be measured in terms of the basic ethical and spiritual values the military inculcates into Taiwan youth in the armed forces."²⁰ Military training in Taiwan has a high political and social content. The learning of Sun Yat-sen's "Three principles of the people" which provides the basis for the Republic of China's constitution, is emphasized as much as acquiring military skills. Goals and objectives of the government are explained to the conscripts. They are constantly reminded of duty to the nation and exhorted to take pride in their armed forces and their country. These programs have resulted in a higher national consciousness not only among the men who have served in conscription, but also the population from which these conscripts were drawn.

For both Singapore and Taiwan, the conscript system has been actively used by the government leadership to support the nation-building process. Considering the relative success in forging a national unity despite the inherent difficulties faced, one can conclude that the conscript system has been effective in its role. The conscript system in Singapore and Taiwan will continue to be used in bringing together young citizens of

diverse background and to act as an important channel for the imparting of national values.

INTERNAL CONTROL/SECURITY

A conscript system subjects the bulk of the country's male population to the control of the state through the military institution. It is thus a potent tool for the internal control of a large segment of the country's young men. The system also provides for a large military force which is used by some countries to carry out internal security policies. This is especially the case for countries with authoritarian governments and also those that face serious internal security problems.

Singapore. The SAF currently does not play any significant role in Singapore's internal security and domestic control. These functions are undertaken by the Singapore Police Force and the Internal Security Department. The Singapore Police Force, which is 12,000-strong comprises 3,000 full-time national servicemen (conscripts who serve their national service in the police instead of the SAF).²¹

In the early years of Singapore's independence, both defense and internal security functions were organized under the Ministry of the Interior and Defense (MID). However, with the rapid build-up of the SAF and the increasing complexity associated with the expanding military command structure, the MID was reorganized in 1970 into the Ministry of Defense (MINDEF)

and the Ministry of Home Affairs. With the split, the MINDEF concentrates on external defense and the management of the SAF while internal security becomes a separate function under the Ministry of Home Affairs which controls the police force and the Internal Security Department.

Singapore faced communist insurgency problems in the 1950s/60s. However, over the last two decades, internal security problems have been kept well under control by timely actions of the police and the Internal Security Department. Though Singapore has not rid itself totally of the communist insurgency problem (as evidenced by an uncovering of a Marxist conspiracy in June 1987), it does not face serious internal security difficulties that have plagued many developing countries. There is hence no requirement for the SAF to be directly involved in internal security measures.

Taiwan. The Taiwan armed force has been an important instrument for internal security. Taiwan constantly faces a communist threat given its struggle with the PRC. The potential conflict between the mainlander Chinese and the native Taiwanese provides issues that could be exploited by communist insurgents. According to the "anti-communist hardliners" within the government and military leadership, instigation from the communists significantly accounts for the violent eruption of the mainlander-Taiwanese conflicts like the 1977 Chungli and the 1979 Kaoshiung riots. The military hence has a justified role in

internal security and control policies. During the Chungli and Kaoshiung riots, the Taiwan Garrison Command was called in to restore order and to suppress political dissent. The Taiwan Garrison Command, organized under the Ministry of National Defense, is the country's key instrument for exercising internal control. It is estimated to be 25,000-strong.²²

Taiwan was governed under martial law from 19 May 1949 to 14 July 1987. During the 38 years under martial law, the military's participation in internal security has been significant. However, with the lifting of martial law, there will be a decrease in the military's role in internal control. Civilians will no longer be tried by military tribunals. The military will also turn over to civilian authorities the power to censor publications.

Besides the direct role of control exercised by the Taiwan Garrison Command, the conscript system also contributes to internal security in other ways. Potential dissidents in the society are also conscripted as with other young men and are posted to serve in camps far away from home. They are subject to military control as well as national education during the period of conscript service.

THE ECONOMY

The military forces of Singapore and Taiwan relate to their economies and affect economic considerations in the two countries in very similar ways. There are three key aspects.

First, a credible defense capability increases confidence in the stability of the economy and attracts more foreign investments. Second, defense spending represents a significant portion of the country's annual expenditure. Third, military service provides useful vocational training for conscripts which makes them more productive to the economy as they enter or return to the labor market after conscription.

Singapore and Taiwan have been relatively successful in their economic development over the last two to three decades. Foreign investments have played a significant role in their dynamic economic growth. The two countries' ability to attract the volume and type of foreign capital they desired is closely linked to the overall perception of their political stability and security. This is particularly significant considering Singapore's geographical vulnerability and Taiwan's constant threat from the PRC. For both Singapore and Taiwan, the provision for a strong military force bolsters confidence in the economy.²³ The use of the conscript system also demonstrates the countries' seriousness in defense preparation and the governments' ability to mobilize the populace.

The relationship between the SAF and the Singapore economy was highlighted by Singapore's Minister for Foreign Affairs, Mr. S. Dhanabalan who argues that "one of the dividends of a strong defense for a small country like Singapore has been maintenance of business and investor confidence, both local and foreign, which underlies the Republic's economic success."²⁴

Similarly for Taiwan, as opined by Ross: "The military is clearly a symbol to foreign investors and the local population of the [country's] ability to defend itself and to foster an environment for economic growth and social development."²² Any perception that Taiwan's military strength or its resolve to defend itself is weakening will threaten the investment climate and the economic viability of the country.

Defense spending for Singapore and Taiwan has remained relatively high. Singapore's military budget each year has been kept at about six percent of the Gross Domestic Product (GDP), which though not among the highest is a relatively high average among the Third World countries. Defense spending per capita averages about US\$500 a year.²³ For a small developing nation like Singapore, the high military spending required to maintain a relatively large armed force imposes a burden on the economy. Particularly in periods of economic downturn, there are increasing pressures on the government from certain segments of the population, including opposition members of parliament, to scale down defense spending. The high cost of defense for Singapore has to be weighed against its need for a credible military force to provide for Singapore's security and the other associated benefits, e.g., nation-building and confidence in the economy. Moreover, as argued in Chapter Four, to maintain an all-volunteer SAF of the same size would have cost drastically more. Keeping defense spending at six percent of the GDP is within the country's affordable limit. Singapore's growing economy

over the last two decades has provided adequately for the military needs as well as raised the standard of living of Singaporeans at the same time. In fact, keeping defense spending at a constant six percent of the GDP provides a built-in regulator in that the defense budget during years of economic downturn is automatically reduced on account of a smaller GDP. Consequently, in years when the economy enjoys a rise in GDP, more funds will be automatically made available for military spending.

Taiwan's defense spending at about nine percent of its GDP is one of the highest in the world. According to one study, Taiwan's defense spending per capita is possibly the highest in the world.²⁷ The approximately US\$4 billion annual defense budget accounts for about 35 percent of total government spending. This constitutes a high cost on the economy. However, seen against Taiwan's vital need for a strong defense capability, the high military expenditure appears to be generally accepted by the population. Taiwan's vibrant economic growth over the last three decades has also been able to support the high defense spending while at the same time providing for a higher standard of living and a more equitable distribution of wealth.

Another dimension of the effect of the military system on the economy is its positive contribution to the skills training of a large portion of the labor force. Conscripts who are assigned to technical vocations operating sophisticated electronic and mechanical weapons and equipment acquire useful

skills that are subsequently useful to the expanding electronic and technological sectors of the economy. Driver, cook, medical orderly and other combat service support occupations also provide training that could be related to a conscript's subsequent choice of job. Conscripts who became junior officers and NCOs found themselves better equipped with management skills through their leadership experience in their military service. Employers have been observed to prefer choosing their junior management staff from this pool of ex-conscripts. The armed forces of the two countries also provide conscripts with opportunities for further academic education which enhances their potential productivity for the economy. As observed by Singapore's former Minister for Defense, Mr. Howe Yoon Chong, the national service allows technical skills to be taught to the conscripts to widen the individual's choice of jobs in civilian life and to improve his capability to contribute to the industrialization effort. "Whatever useful skills are learned in the army can only improve the soldier in his work [in civilian life.]"²² The same conclusion can be drawn from the situation in Taiwan.

On balance, the conscript systems in Singapore and Taiwan have contributed positively to their respective economies. Though requiring a large military budget, this appears to be within supportable limit of the two countries and has not hampered economic growth and rising living standards. On the contrary, to the extent that the system supports a credible

defense capability, it has been effective in maintaining confidence in the economy, thereby contributing to economic growth in the two countries. The conscript system has also effectively contributed to the skills training of a segment of the labor force.

FOREIGN POLICY

A sound foreign policy constitutes an important part of a country's overall deterrent against external threat. As discussed earlier, the military force of a country supports its execution of foreign policy during peacetime.

Given Singapore's vulnerability, an articulate foreign policy is recognized by the government leadership as being important to its survival. Singapore actively participates in regional politics on matters relating to South East Asia's stability. Especially on issues concerning Indo-China, Singapore is often known as one of the hardline states.²⁹

An active foreign policy is certainly important for Taiwan. Its biggest issue in international affairs is its claim as the legitimate government of China. Taiwan left the United Nations in 1971 and its place was taken over by the PRC. Over the last decade, there were increasing number of countries that established diplomatic relations with the PRC and de-recognized Taiwan. Consequently, Taiwan finds itself becoming increasingly isolated from the world community. Faced with a more active

participation by the PRC in international affairs, Taiwan had to adopt a strong foreign policy.

For Singapore and Taiwan, the role of the military in the countries' foreign policy is that of a legitimizer. Though the armed forces of the two countries are not intended to threaten any other nations, a strong military capability adds credibility to their foreign policy, particularly when the countries take a strong stand on issues related to their security. It is the muscle behind the voice. The conscript system galvanizes the population behind the government. It represents the national will of the people supporting the country's defense effort. Not only does this enhance the confidence of the government leadership, it strengthens the foreign policy options.

An adequate defense capability also reaffirms the independence of the two countries. It allows for more flexibility in their foreign policy. As noted by Mayerchak, "Were there no credible defense force, questions of neutrality or protectorate status under the wing of some power would eventually arise."²⁰

Therefore, the conscript military forces of Singapore and Taiwan, by providing a credible defense capability, have been effective in supporting the foreign policies of the two countries.

CONCLUSION

The analysis highlights many similar aspects of how the conscript system affects the operational readiness of the armed

forces of Singapore and Taiwan and the two countries' societies, economies and foreign policies.

The conclusions from the analysis using the various criteria in the model are summarized in Table 2. They are reflected as follows:

++ : Very effective.

+ : Effective.

0 : Neutral (Does not have a direct role in the criterion).

- : Ineffective.

-- : Very ineffective.

TABLE 2 - SUMMARY OF EFFECTIVENESS OF THE CONSCRIPT SYSTEM FOR SINGAPORE AND TAIWAN

CRITERIA	SINGAPORE	TAIWAN
MILITARY CONSIDERATIONS		
1. Quantitative build-up	++	++
2. Quality of the armed forces		
- Conscripts	+	+
- Leadership	+	+
- Integration	+	+
3. Mobilization	-	-
4. Attitude of the conscripts	(-)+	(-)+
NON-MILITARY CONSIDERATIONS		
5. Nation-building	++	++
6. Internal control/security	0	+
7. Economy	+	+
8. Foreign Policy	+	++

On the whole, the analysis shows that the conscript system is effective in meeting the defense needs of Singapore and Taiwan. It also contributes positively to the attainment of other national objectives of the two countries.

ENDNOTES

¹ The definition of the five elements of national power is based on the "Strategic Analysis Model" of the Department of Joint and Combined Operations, CGSC.

² "The Republic of Singapore," Journal of Defense and Diplomacy (January 1985), 31.

³ Singapore's Prime Minister, Mr. Lee Kuan Yew, when speaking to SAF officers on 2 June 1987 said, "Singapore is what it is today because the SAF was able to build up in time to fill the role the British, with the Australians and New Zealanders, fulfilled from 1945." Reported in The Straits Times (Singapore), 3 July 1987.

⁴ Cohen, Citizens and Soldiers, 42.

⁵ Ibid., 43.

⁶ Ibid.

⁷ "Concurrent Appointments" are appointments in the reserve units held by regular officers in addition to their active appointments which usually do not have a wartime role, e.g., instructors in training schools or administrative staff officers.

⁸ The Grumman E-2C HAWKEYE AWAC has the capability to "see" far, up to ranges approaching 480 km, and it has the ability to track more than 600 targets on sea, land and air automatically and simultaneously.

* One of the difficulties facing Taiwan's air force is that of block obsolescence of its earlier aircraft. Since the normalization of relations between the United States and the PRC, Taiwan's request for more advanced U.S. fighters has been turned down. However, Taiwan's air force currently still enjoys a qualitative superiority over the PRC in terms of weapon systems and training.

¹⁰ F.M. Stern, The Citizen Army (New York: St. Martin's Press, 1957), 217.

¹¹ Tsai Ching-yuan, "Billions for Defense," Free China Review (May 1979), 16.

¹² Cohen, Citizens and Soldiers, 122.

¹³ Mr. Goh Chok Tong said this in the SAF Day 1987 message, published in Pioneer Magazine (July 1987), 2.

¹⁴ Cohen, Citizens and Soldiers, 122.

¹⁵ "Great Little Army," The Straits Times (Singapore), 3 July 1987, 22.

¹⁶ P.M. Mayerchak, "The Role of the Military in Singapore," E.A. Olsen (ed.) The Armed Forces in Contemporary Asian Societies (London: Westview Press, 1986), 183.

¹⁷ Hungdah Chui and Robert Downen, "Multi-system Nations and International Laws," Contemporary Asian Studies (1981), 32.

¹⁸ Ibid., 31-33.

¹⁹ Thomas B. Gold, "The status quo is not static," Asian Survey (March 1987), 305.

²⁰ E.W. Ross, "Taiwan's Armed Forces," in The Armed Forces in Contemporary Asian Societies, 65.

24 Figures from Singapore Facts and Pictures 1987 (Singapore Ministry of Communications and Information, 1987), 130.

25 The Military Balance 1985-87.

26 The March 1988 Report of the Washington-based Business Environment Risk Information (BERD) ranked Singapore fourth and Taiwan sixth among 48 countries as safe investment spots. The top seven countries listed (in descending order) were: Switzerland, Japan, West Germany, Singapore, Netherlands, Taiwan, and the United States.

27 Quoted in Michael Richardson, "Singapore, The Poison Shrimp," Pacific Defense Reporter (June 1985), 20.

28 Ross, "Taiwan's Armed Forces," 61.

29 Figures are according to statements given by Singapore's First Deputy Prime Minister, Mr. Goh Chok Tong, as quoted in Asian Defense Journal (May 1986), 97.

30 Tsai Ching-yuan, "Billions for Defense," 16.

31 The Singapore Armed Forces, 6.

32 Mayerchak, "Role of the Military," 181.

33 Ibid., 182.

CHAPTER 6

CONCLUSION

PURPOSE

The purpose of this thesis was to examine the appropriateness and effectiveness of a conscript system of military service in providing small countries with a credible defense capability.

The method selected was a case study of Singapore and Taiwan, and the analysis was conducted in two parts. First, the factors which caused Singapore and Taiwan to have a conscript military force were examined. Second, the effectiveness of those conscript systems was analyzed.

The analysis for each part was done using a model which provided a framework for analysis and also collated concepts and ideas on the conscript system in the context of small nations. The model comprised six steps, related to six contributing factors: geography, threat assessment, defense policy, historical circumstances, population/society, and economic considerations.

The framework used for analyzing the effectiveness of the conscript system for Singapore and Taiwan comprised four military criteria and four non-military criteria. The military criteria which relate to the operational readiness of the armed forces were: the quantitative build-up, the quality of the armed forces (quality of conscripts, leadership, and integration among the components), mobilization, and attitude of the conscripts. The non-military criteria which concerned the contribution of the conscript system to internal national objectives were: effects on nation-building, effects on internal security/control, effects on the economy, and effects on foreign policy.

FINDINGS AND GENERALIZATIONS

From the results of the analysis, several general conclusions can be drawn. These generalizations are applicable to other small nations and may provide the basis for further research on the subject.

The findings from the case study of Singapore and Taiwan, and the generalizations concerning small countries are summarized in two tables.

Table 3 consolidates the conclusions from the analysis of factors influencing Singapore and Taiwan to adopt a conscript system. Table 4 summarizes the conclusions from the analysis of the effectiveness of the conscript system for Singapore and Taiwan.

TABLE 3 - CONCLUSIONS ABOUT FACTORS INFLUENCING SMALL COUNTRIES' CHOICE OF A CONSCRIPT SYSTEM

Findings from case study of Singapore and Taiwan	Possible generalizations concerning small countries	Examples
<p>GEOGRAPHY</p> <p>Geography is a major factor affecting the two countries' defense policy and their adoption of a conscript system. Two key considerations are: size of the country relative to its neighbors, and proximity to neighbors.</p>	<p>a. Small countries that have relatively larger neighbors, especially in politically volatile regions, tend to favor a conscript system.</p> <p>b. Small countries that are geographically close to larger neighbors tend to have conscript armed forces to meet their security needs. (This is applicable to countries that have long common borders, countries that are landlocked, and also island-nations that are situated close to their neighbors.)</p>	<p>Israel, Albania, Tunisia, Belgium, Denmark, Paraguay, El Salvador, Bolivia, Benin, Guinea-Bissau, and Thailand.</p> <p>Austria, Togo, Zimbabwe, Laos, and Hungary.</p> <p>Island-nations: Cyprus, Seychelles, and Cape Verde.</p>
<p>THREAT ASSESSMENT</p> <p>Threat perception is an important factor influencing the two countries' defense policy and their adoption of a conscript system, even though the nature of threat facing them is different.</p>	<p>Small countries which face constant external threats or which are situated among more powerful hostile neighbors, and which believe themselves to be capable of resistance will usually maintain a conscript force.</p>	<p>Israel, South Korea, Austria, Somalia, Greece, El Salvador, Honduras, Nicaragua, and Thailand.</p>
<p>DEFENSE POLICY</p> <p>The defense policy of the two countries, which is one of deterrence based on a credible defense capability, significantly affected their adoption of the conscript system.</p>	<p>Small countries that based their defense on a policy of deterrence against invasion from relatively powerful external threat(s) tend to maintain relatively large armed forces through the conscript system.</p>	<p>Israel, South Korea, Greece, Honduras, Sweden, Finland, Thailand, and North Yemen.</p>

TABLE 3 - CONTINUED

Findings from case study of Singapore and Taiwan	Possible generalizations concerning small countries	Examples
HISTORICAL CIRCUMSTANCES		
The historical circumstances facing the two countries were significant in influencing the adoption of a conscript system so as to build up a sizable armed force in a shorter time as compared to an all-volunteer force.	Small countries that face urgent needs in building up a large force and in creating a large pool of reserves tend to adopt a conscript system.	Israel, South Korea, and Zimbabwe.
POPULATION/SOCIETY		
The small population base of Singapore and the smallness of Taiwan's population (relative to the PRC) have significant influence on their adoption of a conscript system. Conscription is also intended by the government of the two countries to serve internal national objectives.	a. Countries with populations smaller than those of their neighbors or their adversaries tend to have a conscript system which allows them to diminish the quantitative difference in the military forces.	Israel and Greece.
	b. Newly established small countries may use conscript service as a channel for nation-building.	Israel and South Korea.
	c. Small countries faced with internal security problems may use conscription as a means for internal control.	Somalia.
ECONOMIC CONSIDERATIONS		
Economic considerations are a major constraint to the two countries' maintenance of a large force. The lower cost associated with a conscript force as compared to an all-volunteer force favors the adoption of a conscript system.	Small developing countries faced with economic constraints and the need to maintain large armed forces to provide for a credible deterrent tend to adopt conscript forces as compared to all-volunteer forces.	Israel, South Korea, Greece, Thailand, and Zimbabwe.

TABLE 4 - CONCLUSIONS ON THE EFFECTIVENESS OF THE CONSCRIPT SYSTEM

Findings from case study of Singapore and Taiwan	Possible generalizations concerning small countries
<p>MILITARY CONSIDERATIONS</p> <p>QUANTITATIVE BUILD-UP</p> <p>The conscript system is very effective in providing Singapore and Taiwan with the rapid quantitative build-up needed for their defense.</p>	<p>Conscription is an effective means for small countries to build up the quantitative strength of their armed forces in a relatively short time. For small countries constantly contending with external threat(s) from more populous neighbors, a conscript system enables the countries to maintain large standing forces and large reserve forces which when mobilized form the main fighting strength of the countries.</p>
<p>THE QUALITY OF THE ARMED FORCES</p> <p>The conscript system contributes to the quality of the armed forces of Singapore and Taiwan by providing them access to a larger base of qualitative manpower which would otherwise not be available to an all-volunteer force. The conscript system also provides the bulk of their junior level leadership in the active and reserve units, which an all-volunteer system would not have attracted in the quantity and quality required. However, the conscript system does entail efforts in integrating the three components of armed forces so as to enhance cohesiveness and to minimize disparity in operational efficiency.</p>	<p>The conscript system is effective in allowing the armed forces of small countries to draw their military strength from a larger manpower base (compared to an all-volunteer system) and thus raise the quality of the armed forces. The conscript system is also useful in providing the armed forces of small countries the bulk of their junior level leadership. However, the system may adversely affect the integration among the components of armed forces.</p>

TABLE 4 - CONTINUED

Findings from case study of Singapore and Taiwan	Possible generalizations concerning small countries
<p>MOBILIZATION</p> <p>The dependence on mobilization acts as a limitation to the operational readiness of the armed forces of the two countries. Recognizing this as a constraint imposed by a conscript force, the two countries' armed forces make efforts to offset the disadvantages through enhancing mobilization capability, and having appropriate strategy and force equipping.</p>	<p>The high dependence on mobilization is a limitation to the operational readiness of conscript armed forces of many small countries in several ways:</p> <ul style="list-style-type: none"> a. The countries are vulnerable to large scale surprise attack. b. The countries cannot afford to wage a long war. c. The countries are limited in their initiative in achieving strategic surprise. d. The countries' war fighting capability is highly dependent on the ability of the leaders in securing national consensus.
<p>ATTITUDE OF THE CONSCRIPTS</p> <p>Both countries faced a challenge in having to secure the acceptance of conscription among the population, especially in the early years of their conscript systems. Active programs were employed to raise the commitment of the nation and the conscripts towards national defense. The success of these programs is vital in undergirding the effectiveness of the conscript armed forces of the two countries.</p>	<p>Conscription, being essentially compulsory military service instituted through legislation and enforcement, may experience resistance from a segment of the population. Influences due to the cultural and historical background of the society are important factors to be considered. Particularly for newly independent or newly established countries that adopt a conscript system, the ability of the leaders in securing the acceptance of the population and the commitment of the conscript is important to the effectiveness of the armed forces.</p>

TABLE 4 - CONTINUED

Findings from case study of Singapore and Taiwan	Possible generalizations concerning small countries
<p>NON-MILITARY CONSIDERATIONS</p> <p>NATION-BUILDING</p> <p>The conscript system has been actively used by the two countries to support the nation-building process. Despite the inherent difficulties found within the societies of the two countries, the conscript system has contributed effectively to the forging of national unity and national identity in the two countries.</p>	<p>The close relationship between a conscript armed force and its society makes the military system a potential means in the country's nation-building process. Conscript military service contributes to nation-building in two key aspects: first, in bringing together citizens from diverse backgrounds, and second, in providing a channel for imparting national values. For small developing countries, a carefully planned conscript system can be an effective vehicle for nation-building.</p>
<p>INTERNAL CONTROL/SECURITY</p> <p>The conscript system has been used as an important instrument for internal control/security in Taiwan, although less so in Singapore.</p>	<p>The conscript system, which affects the bulk of a country's male population, is a potential means for internal control. A relatively large conscript force is also a means for governments to carry out internal security policies. However, the effectiveness of the use of a military force for internal control/security is dependent on the nature of the internal security problems and the society peculiar to each country.</p>

TABLE 4 - CONTINUED

Findings from case study of Singapore and Taiwan	Possible generalizations concerning small countries
<p>THE ECONOMY</p> <p>The conscript armed forces affect the economy of the two countries in three key aspects. First, a credible defense capability increases confidence in the stability of the economy and attracts foreign investment. Second, defense spending constitutes a significant portion of the countries' expenditure. Third, military service provides useful vocational training for conscripts.</p>	<p>The conscript system can effectively support the economic policies of a small developing nation in enhancing external perception on the security and stability of the country. The system can also be a means to provide vocational training that supports the industrialization of the country. However, a conscript armed force usually requires large financial expenditures (though less than that of an equivalent size all-volunteer force.) The defense must be within the supportable means of the economy.</p>
<p>FOREIGN POLICY</p> <p>The conscript armed forces of Singapore and Taiwan support the countries' execution of foreign policy by providing the countries with a credible defense capability and by representing the national will of the people behind the countries' leaders. This enhances the credibility of their foreign policy, increases the confidence of the leadership, and allows for more flexibility in foreign policy execution.</p>	<p>For small countries with a defense policy based on deterrence, the relationship between their military capability and foreign policy is important to their security. The conscript armed forces in providing the countries with a credible defense capability contribute positively to their execution of foreign policy.</p>

SUMMARY

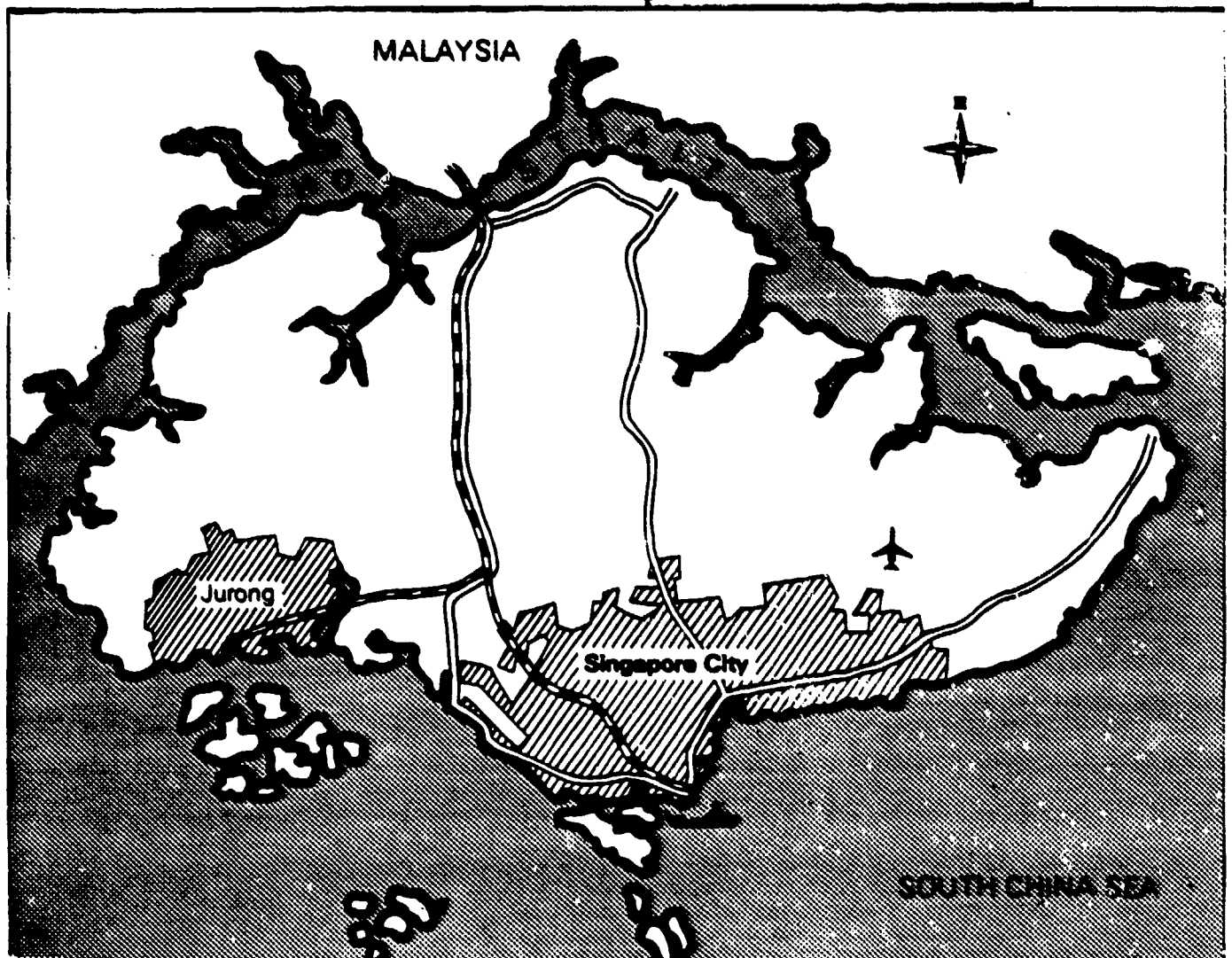
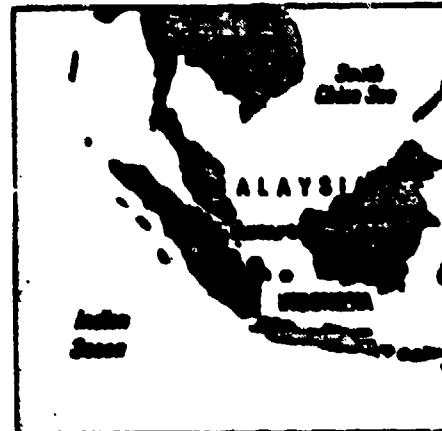
On the whole, the analysis shows that the conscript system is appropriate and effective in providing Singapore and Taiwan with a credible defense capability. Given the various inherent factors and constraints, the conscript system, as compared to the other military systems, is most suitable in providing the two countries with the type of military force required for their defense needs. The conscript system has generally been effective in contributing to the military efficiency of the armed forces as well as in supporting other non-military national internal objectives.

In a wider context, this paper has shown that the rationale for a country's adoption of a conscript system can be found in a combination of factors and constraints as well as national objectives, both military and non-military. It has also demonstrated that the conscript system can be effectively used to provide a small country with a military force that is larger and has a broader qualitative manpower base than an all-volunteer force. The conscript system can also contribute to the accomplishment of internal national objectives. This research therefore has provided a rationale for why the majority of small countries have conscript armed forces.

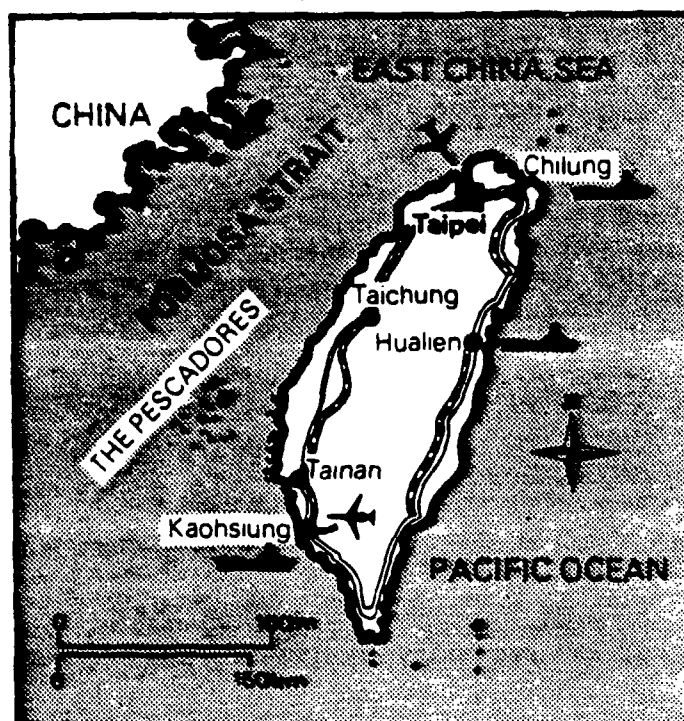
APPENDIX A - SUMMARY OF KEY RELEVANT DATA ON SINGAPORE AND TAIWAN

	SINGAPORE	TAIWAN
a. Total land area	621 sq km	35,980 sq km
b. Population	2.6 million	19.6 million
c. Racial composition	76% Chinese 15% Malay 6% Indian 3% Others	85% Taiwanese Chinese 13% Mainlander Chinese 2% Aborigines
d. Literacy rate	86%	89%
e. Average annual GNP growth from 1963-85	9.7%	9.2%
f. GNP per capita	US\$7,000	US\$3,000
g. Defense expenditure as a percentage of annual GNP	6%	9%
h. Total strength of armed forces	250,000 (50,000 active & 200,000 reserve)	2,000,000 (400,000 active & 1,500,000 reserve)
i. Term of conscript service	30 mths (NCO & Officer) 24 mths (All Others)	24 mths for army 36 mths for air force 36 mths for navy
j. Reservist obligation	Until age 50 (Officer) Until age 40 (Others)	Until age 55

APPENDIX B - MAP OF SINGAPORE



APPENDIX C - MAP OF TAIWAN



**APPENDIX D - FRAMEWORK FOR ANALYSIS OF FACTORS AFFECTING A
COUNTRY'S ADOPTION OF A CONSCRIPT SYSTEM**

1. Geography (Step 1).

a. What is the size and shape of the country? Is it an island, is it landlocked, etc? Does it share common borders with neighbouring countries? Does its geography contribute to the defense or vulnerability of the country?

b. What is the location of the country with respect to other countries in the region? Does it have strategic importance to other nations in the region or to the super-powers?

2. Threat Assessment (Step 2).

a. What is the country's perception of threat to its national security? Does the country face an identified threat or a general potential threat?

b. What is the balance of power between the country and its perceived threat(s)? What is the proximity of the threat?

3. Defense Policy (Step 3)

a. What is the country's defense policy? How is it influenced by the country's geography and threat perception?

b. What type of forces and military system are required to support the defense policy?

4. Historical Circumstances (Step 4).

a. What were the historical circumstances during the initial formation of the conscript armed forces which may account for the choice of the particular system? Was there an urgent need for a rapid build-up of the armed forces? Is the country in a war or facing an imminent war?

b. What is the historical background of the military forces? How much influence does the historical tradition have on the armed forces?

5. Population/Society (Step 5).

a. What was/is the size and composition (age, sex, race, etc) of the population?

b. What were/are the general attitudes of the people towards national defense?

c. What was/is the literacy rate?

d. Were/are there racial, religious, ideological or other social cleavages within the society?

e. How did/do these factors affect a conscript force?

6. Economic Considerations (Step 6).

a. What are the costs involved in maintaining a conscript force as compared to an all-volunteer force?

b. Does the country have the economic base to support a large standing army? Are the economic costs for maintaining a conscript force within the country's supportable limits?

APPENDIX E - COMMENTS ON THE EFFICIENCY OF THE ARMED FORCES
OF SINGAPORE AND TAIWAN

SINGAPORE

"While Singapore possesses one of the smaller military forces in Asia, its citizen-soldier army and professional air force and navy constitute one of the best conceived military establishments in the region."

P.M. Mayerchak
"The Role of the Military in Singapore"
The Armed Forces in Contemporary Asian
Societies (1986)

"The SAF though small is one of the most effective defense forces in ASEAN."

Journal of Defense and Diplomacy
(January 1985)

"Enough has been said to show that the SAF is an extremely well equipped and highly capable force, especially when one compares it with other ASEAN armies."

M.S. Said
"A Flaming Sword in the Righteous Cause
of National Survival"
Asian Defense Journal (June 1987)

"While its military personnel have yet to fight a war, Singapore's armed forces give every indication of being a professional force to be reckoned with. There seems little doubt that the SAF are up to the task of defending their soil."

K. Jacobs
"Singapore's Defense Forces"
Asia-Pacific Defense Forum (Fall 1981)

TAIWAN

"The three services of Taiwan's armed force are considered to be highly efficient. Training and morale are excellent, and the troops are well led."

M.L. Lasater and L.J. Lamb
"Taiwan: Deterrence to Remain Unchanged"
Pacific Defense Reporter (June 1985)

"Taiwan's military forces are judged to be one of the best trained and equipped forces in Asia."

M.Y.M. Kau
"Taiwan's Defense Capabilities and Arms Needs"
The Taiwan Experience (New York: 1981)

"The armed forces of the Republic of China are superbly led. They are fierce fighters and they are completely loyal to the government."

E. K. Synder
"Assessment of Taiwan's Military Capabilities"
The Taiwan Experience (New York: 1981)

"From 1960, Taiwan built a relatively modern and well organized military force."

E.W. Ross
"Taiwan's Armed Forces"
The Armed Forces in Contemporary Asian Societies (1986)

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