



# **NAVAL POSTGRADUATE SCHOOL**

**MONTEREY, CALIFORNIA**

## **THESIS**

**ROK ARMY MANPOWER FORCE STRUCTURE:  
VALIDATION OF ORGANIZATIONAL (OFFICER, NCO  
AND ENLISTED PERSONNEL) STAFFING OF AN  
INFANTRY BATTALION**

by

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March 2006

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ORGANIZATIONAL (OFFICER, NCO AND ENLISTED PERSONNEL)  
STAFFING OF AN INFANTRY BATTALION**

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## **ABSTRACT**

This research recommends changes to force ratios of officers, non-commissioned officers (NCOs) and enlisted personnel in Republic of Korea (ROK) Army infantry battalions. The methodology is a Bottom-Up approach that examines unit staffing and supports ROK Defense Reform Plan 2020 (the Reform Plan). The research finds that the ROK Army possesses an excessively personnel centric force structure not suited for the future battlefield. Secondly, the research recommends the revision of force manpower structures to support a capabilities based ROK Army infantry battalion. The research models an infantry battalion with increased qualitative and quantitative NCO ratios that support a more technologically advanced infantry battalion manpower structure. Significant findings of this research recommend increasing the number of ROK armed services volunteers at the E-5 and E-6 pay grades to improve leadership, training and development and the ability to execute the technology required to implement the Reform Plan, which is transformational, and a fundamental prerequisite for the Reform Plan. The ROK Ministry of National Defense (MND) must start now to make the ROK military an employer of choice to eventually transition to a greater and more capable volunteer force.

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## **EXECUTIVE SUMMARY**

On September 12, 2005, the Republic of Korea (ROK) Ministry of National Defense (MND) unveiled its reform plan, known as Defense Reform Plan 2020 (the Reform Plan), anticipating that it would build a smaller but stronger military by reducing 177,000 ROK Army personnel from the 548,000 total, and increasing the current manpower ratio of officers and non-commissioned officers from 20 percent to 40 percent by the end of the year 2020. The current ratios of 9:11:80 among officers, NCOs, and enlisted personnel in the ROK Army clearly show that the current ROK Army is highly personnel centric, especially depending on enlisted personnel and, therefore, unfit to fulfill the anticipation of the hi-tech armed force envisioned in the Reform Plan.

The research defines the Reform Plan as a set of “Top-Down” approaches generated by the top decision makers through a form of capabilities-based planning to determine adequate capabilities of the ROK Army as a whole entity. The research then concludes that this method should be followed by numerous “Bottom-Up” approaches by manpower planners for each unit within the ROK Army organization. When all the Bottom-Up approaches are aggregately incorporated into one manpower force structure, the ROK Army manpower force structure will be finalized through continuous reviews and practices. Therefore, the research selected a ROK Army infantry battalion and built a model of future infantry battalion as one Bottom-Up approach to conform to the direction of the Reform Plan.

In order to conduct a Bottom-Up approach, the research selects three advanced military ground forces, namely the United States Army (USA), United States Marine Corps (USMC) and Taiwanese Army, to benchmark their infantry battalions in forms of Modified Tables of Organizations and Equipment (MTOE). By conducting a comparative factors analysis of the organizations, the research identifies capabilities that the current ROK Army infantry battalion lacks and determines required capabilities for the battalion. By incorporating the required capabilities, a future model of a more operationally flexible ROK Army infantry battalion is built. This model suggests that the future force ratios among officers, NCOs and enlisted personnel of the current ROK

battalion should be changed from 4.7:4.7:90.6 to 4.6:21.1:76.3. From the model, the research concludes that, in the ROK Army infantry battalion, the NCO ratio should be increased from 4.7 percent to at least 21.1 percent.

Because of the inherent purpose of the current manpower accession, the ROK military does not have any choice but to remain unfit for what the Reform Plan will demand in the future. In order for the military to attract high-quality manpower in a hi-tech future military, innovations in the ROK military accession and personnel management systems are mandatory, as is an adequate allocation of defense resources. Therefore, the research finds that a transformational mindset must be formulated among various stakeholders to successfully accomplish the Reform Plan.

# **I. INTRODUCTION**

## **A. PURPOSE**

The ROK Army continues to expend considerable effort toward transforming itself into a technology-based armed force by introducing advanced weapons and operation support systems for the twenty-first century battlefield. However, without the right mixture of human resources—comprising the proper skills, education, and training needed to execute missions in a new, technology-oriented armed force—the ROK Army may hinder its attempt to transform itself into a “smaller but stronger”<sup>1</sup> military in the near future. This research was conducted to examine recently transformed military manpower force structures to analyze factors that support changes in force ratio among officers, non-commissioned officers (NCO), and enlisted personnel. It will examine manpower force structures to meet tomorrow’s battlefield environments, and recommend feasible methodologies to the Republic of Korea (ROK) Army optimize its manpower ratios.

### **1. Background**

Changes in modern warfare require continuous reforms in the concept of military operations and military employment. Since the end of the Cold War, weapons systems and information technologies have advanced dramatically. The execution of war today has become more technology oriented and these advances will continue into the future.

Military power consists of two essential elements: the human resource element and the physical resource element. If a military power is to be maximized, these two elements must be cultivated in a reciprocal and synergistic manner. A technology oriented armed force is more likely to be victorious in today’s battlefield environment. Therefore, it is ironic and interesting that the human resource element has become even more crucial as advanced weapons systems become more important in overcoming potential adversaries in future warfare. War fighters require the right knowledge, skills, and abilities—acquired through education and training—to properly operate newly procured and advanced technology weaponry. Hence, the widely spread mandate for many countries today to place the right human resource elements into their militaries—

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<sup>1</sup> Jin-Suk Kang, *Korean National Strategy and Defense Reform* (Seoul: Pyung Dan, 2005).

personnel who are trained for today's and tomorrow's battlefields and who will remain in the military for an optimum return on investment. When transforming a military that has been very personnel dependent in the past, into a military that is equipped with future technology and information science, "qualitative elitism"<sup>2</sup> is essential in the military manpower force structure.

The Republic of Korea Army is not an exception to these challenges. On September 12, 2005, the Republic of Korea Ministry of National Defense (MND) unveiled its reform plan, known as "Defense Reform Plan 2020," anticipating that it would build a smaller but stronger military. There is growing concern within the Korean defense manpower community, that the manpower force structure of the ROK Army is still too big—and largely personnel intensive—to fulfill the anticipation. The current situation is quite contrary to military reform; because downsizing is a precondition for any common military reform. This is due to limited defense resources and other conditions both inside and outside the military.

Qualitative elitism in the ROK Army manpower force structure should consist of two basic tasks: downsize the current Army manpower force structure, and specialize the manpower with newly acquired and available resources that can be reallocated from the downsizing. Within the ROK defense community, these two tasks are known as "quantitative slimming and qualitative specialization of force."<sup>3</sup> Manpower specialization, under the current conscription laws, should focus on officers and non-commissioned officers. Specialization of enlisted personnel in today's ROK Army is not cost-effective because those in mandatory service will be discharged within 24 months.

In line with this year's reform plan, the ministry plans to curtail about 181,000 Army personnel over the next 15 years, while adjusting the ratios between officers and non-commissioned officers to enlisted personnel from 25:75 to 40:60. Out of the number, 177,000 personnel (about 97.8 percent) will be reduced from the ROK Army.

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<sup>2</sup> Young Jin Cho, Kwan Ho Cho, Kil Ho Chung, Ju Sunge Chung, Won Bae Lee, and Ahn Sik Kim, *Defense Manpower Development Plan for an Elite Force* (Seoul: Korea Institute for Defense Analyses, 2005), 35.

<sup>3</sup> Ibid.

This implies that most of the manpower reform will take place among the ROK ground forces. Concerning the ratio numbers from the Reform Plan, academic curiosity inspires a few questions:

- How did MND figure out in the Reform Plan that 26.6 percent of current ROK military manpower should be reduced?
- Why should 97.8 percent of the downsizing take place in the ROK Army?
- Do the numbers have a solid foundation attributed to national security strategy, military objectives, and social, political and economical factors both inside and outside of the ROK military?
- How would anyone validate the process?

## **2. Top-Down Approach**

Since the Defense Reform will be conducted with an astronomical amount of the Republic of Korea's national resources over the next 15 years, the ROK MND and its government in overall owe the Korean taxpayers answers to the above questions. However, the answers are not the focus of this research. Despite such questions, it is crucial—for the purpose of this research—to assume that the calculations proposed by the MND are based on proper strategic analyses—defined as a “Top-Down” approach. Such analyses can determine adequate military capabilities for the ROK Army in future security environments in Northeast Asia.

A Top-Down approach is used when upper-level decision makers wish to visualize and articulate a new strategic plan—in this case, within the ROK military. This method may be feasible for the decision makers to establish a long-term strategic plan such as the Reform Plan. The actual implementation of this method, however, requires cooperative works among many functions within the organization, known as “Bottom-Up” approaches. Since this is an early, initial phase of the Reform Plan, no additional Bottom-Up plans are available to help visualize the actual implementation of the Reform Plan.

Therefore, this research will benchmark other advanced military organizations—specifically the United States Army, Marine Corps, and Taiwanese Army—to review how they construct their manpower forces, and with what factors, to conform to their national security strategies. After identifying factors that are relevant to the ROK Army, the research will construct a methodology of an ideal infantry battalion, the smallest tactical combat unit based on ROK Army doctrine. The research will compare a ROK Army infantry battalion to currently standing infantry battalions from other military ground forces to determine what ratios an infantry battalion will require to contribute to the ratio of 40:60 for the entire ROK military. If the current ratio of an infantry battalion does not prove effective, the research will propose ratio of commissioned officers to NCOs and to enlisted personnel of a future ROK infantry battalion, therefore, suggesting one Bottom-Up approach.

### **3. Research Questions**

#### **Primary:**

- What are the requirements and contributing factors facing its manpower force structure mentioned in “Defense Reform Plan 2020”?
- How are the United States Army and United States Marine Corps infantry battalions currently structured?
- What capabilities can the ROK Army infantry battalion adopt from other organizations to optimize its future force structure?

#### **Secondary:**

- What strategic backgrounds played a role in the structuring of the United States Army, United States Marine Corps and Taiwanese Army infantry battalions?
- What should the future force structure of the ROK Army be based upon?
- How has the Taiwanese Military evolved through its defense reform?

### **4. Benefit of the Study**

This research is at the request of the Korean Institute of Defense Analysis (KIDA) and supports the Defense Reform Plan 2020. For methodologies to determine manpower

structure or manpower management, additional studies are currently being conducted or planned in the Korean defense community. This research, therefore, is timely and considered a valuable contribution to Defense Reform Plan 2020.

## **B. RESEARCH METHODS**

The research is based primarily on qualitative and comparative analyses among the manpower force structures of four military organizations—infantry battalions of the ROK Army, US Army, US Marine Corps, and Taiwanese Army. Although not inclusive, the sequence of the study is as follows:

- A factors analysis of the ROK Army manpower force structure will be conducted to identify the requirements and contributing factors influencing its force structure.
- A factors analysis of the United States Army (U.S. Army) and United States Marine Corps (USMC) will be conducted to identify what played a role in the restructuring of the two organizations' manpower transformations.
- A comparative analysis among the three military organizations will be conducted to identify distinct characteristics from each organization in order to distinguish which factors should be contributed to the ROK Army manpower structure.
- A model of an ROK infantry battalion will be built based upon the previous factors analysis of the three military organizations to validate the ratio stated in the defense reform plan 2020.
- A case study of the Taiwanese defense reform will be conducted to review some of the lessons learned; they will then be applied in the ROK manpower restructuring.

- A general introduction of the Defense Reform Plan 2020 will be followed by a detailed review of the ROK Army manpower force structure, specifically focusing on the force ratio among officers and enlisted personnel.

## C. OVERVIEW OF CHAPTERS

The remaining research is structured as follows:

- **Chapter II, the ROK Army Manpower Force Structure:** This chapter provides an overview of national and defense policies, strategies, and concepts of the Republic of Korea to identify the ROK Army missions. It reviews the status of ROK Army manpower accessions, along with the current ratio of officers to NCOs and to enlisted personnel, pointing out the inherent limitations and ratio challenges. In addition, the Defense Reform Plan 2020 of ROK MND will be discussed in line with the context of its manpower force structure.
- **Chapter III, Factors Analysis of the ROK Army Manpower Force Structure:** This chapter focuses on a factors analysis of the ROK Army manpower force structure to identify the contributing factors that influence the ROK Army manpower force structure. By performing such analysis, the chapter will identify required capabilities for the ROK Army. With such capabilities identified, the chapter will sort out to find what capabilities are required for the future ROK Army infantry battalion.
- **Chapter IV, A Bottom-Up Approach: Infantry Battalion:** This chapter reviews ground force structures of the US Army, US Marine Corps and Taiwanese Army at battalion-level infantry units to identify capabilities the current ROK Army infantry battalion lacks. A methodology of the ROK Army infantry battalion will be proposed based on missing required capabilities in the previous chapter to suggest a Bottom-Up approach.
- **Chapter V, Summary, Conclusions and Recommendations:** This chapter will summarize and conclude with answer for each research question and recommend the areas for further research.

## **II. THE ROK ARMY MANPOWER FORCE STRUCTURE**

### **A. NATIONAL SECURITY POLICY OF THE PARTICIPATORY GOVERNMENT**

The global inclination toward the pursuit of harmony in the post-Cold War era and improved relations between the two Koreas since the June 15 Inter-Korean summit have provided opportunities to bring “permanent peace” on the Korean Peninsula. However, South Korea still confronts a variety of threats. The North Korean nuclear impasse has emerged as a major threat to the national security of South Korea as well as a lingering issue hampering peace and stability in Northeast Asia region. A readjustment of the U.S. forces stationed in the ROK in alignment with the changing global strategies of the U.S. also affects the overall security structure of the ROK. Furthermore, the ROK faces new challenges of proactively tackling such looming security threats as transnational crimes including international terrorism.

– Ministry of National Defense, 2004,  
Defense White Paper

#### **1. National Interest and National Security Objectives**

ROK Defense Reform Plan 2020 (the Reform Plan) for the ROK military is designed to implement new strategic goals and the missions. The statement that opens this chapter is taken directly from the introductory overview of the National Security Policy Initiative of the Republic of Korea (ROK) Participatory Government<sup>4</sup>. In order to overcome such challenges and threats, the Participatory Government, based on the ROC Constitution, has defined national interest as follows:

- Ensuring National Security
- Promotion of Liberal Democracy and Human Rights
- Economic Development and Promotion of Public Welfare
- Peaceful Unification of the Korean Peninsula
- Contribution to World Peace and Shared Prosperity for Mankind

Along with these national interests, the government focuses on the national competencies of attaining these designated national security objectives:

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<sup>4</sup> Each administration of the Republic of Korea has its own name other than the Republic of Korea Government. The 9<sup>th</sup> Administration of Republic of Korea calls itself ‘the Participatory Government.’ The terms, ‘ROK Government’ and ‘Participatory Government’ are used interchangeably.

- Peace and Stability on the Korean Peninsula
- Common Prosperity of South and North Korea, and Northeast Asia
- Assurance of Public Safety

Based on these national interests and security objectives, there are four principles of the National Security Strategy:

- **Pursuit of the Policy of Peace and Prosperity:** This principle is based on the spirit of the South-North Basic Agreement of 1992 and the South-North Joint Declaration of June 15, 2000. The purpose is to achieve stable inter-Korean relations based on peaceful coexistence, reconciliation, and cooperation. The government is opposed to any kind of war and promotes peaceful resolution of all conflicts and issues through dialogue.<sup>5</sup>
- **Conduct of Balanced and Pragmatic Diplomacy:** The objective of this diplomacy is to seek the development of multilateral security dialogues and cooperative policies, along with promotion of the ROK-US alliance, which constitutes the foundation of security on the Korean Peninsula.<sup>6</sup>
- **Promotion of Cooperative Self-Reliant Defense:** The ROK government seeks to develop capabilities and systems by which it can take the initiative in deterring war provocations by North Korea while promoting the ROK-US alliance from a future-oriented perspective, and proactively taking advantage of multilateral security cooperation.<sup>7</sup>
- **Development of Comprehensive Security:** Today's national threats come not only from external military threats, but also from various threats emerging at home, and from abroad, to hinder "Public Safety." The Participatory Government works to realize an extensive concept of security, encompassing not only military, but also issues pertinent to politics, the economy, society, and the environment.<sup>8</sup>

The Participatory Government has also established strategic tasks and basic tasks in accordance with the national interest, national security objectives, and the principles of national security strategy. Strategic tasks are the current security issues that are essential

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<sup>5</sup> The Republic of Korea Ministry of National Defense, Defense White Paper (Seoul: 2004), 49.

<sup>6</sup> Ibid., 50

<sup>7</sup> Ibid.

<sup>8</sup> Ibid.

to accomplish national security objectives. The ROK Government set its policy priorities on the implementation of these tasks during its term. Basic tasks refer to the security policy objectives, which serve as the foundation for the implementation of strategic tasks. The basic, ongoing tasks should be constantly pursued without time constraints. The Participatory Government's framework of national security strategy is shown in Figure 1.

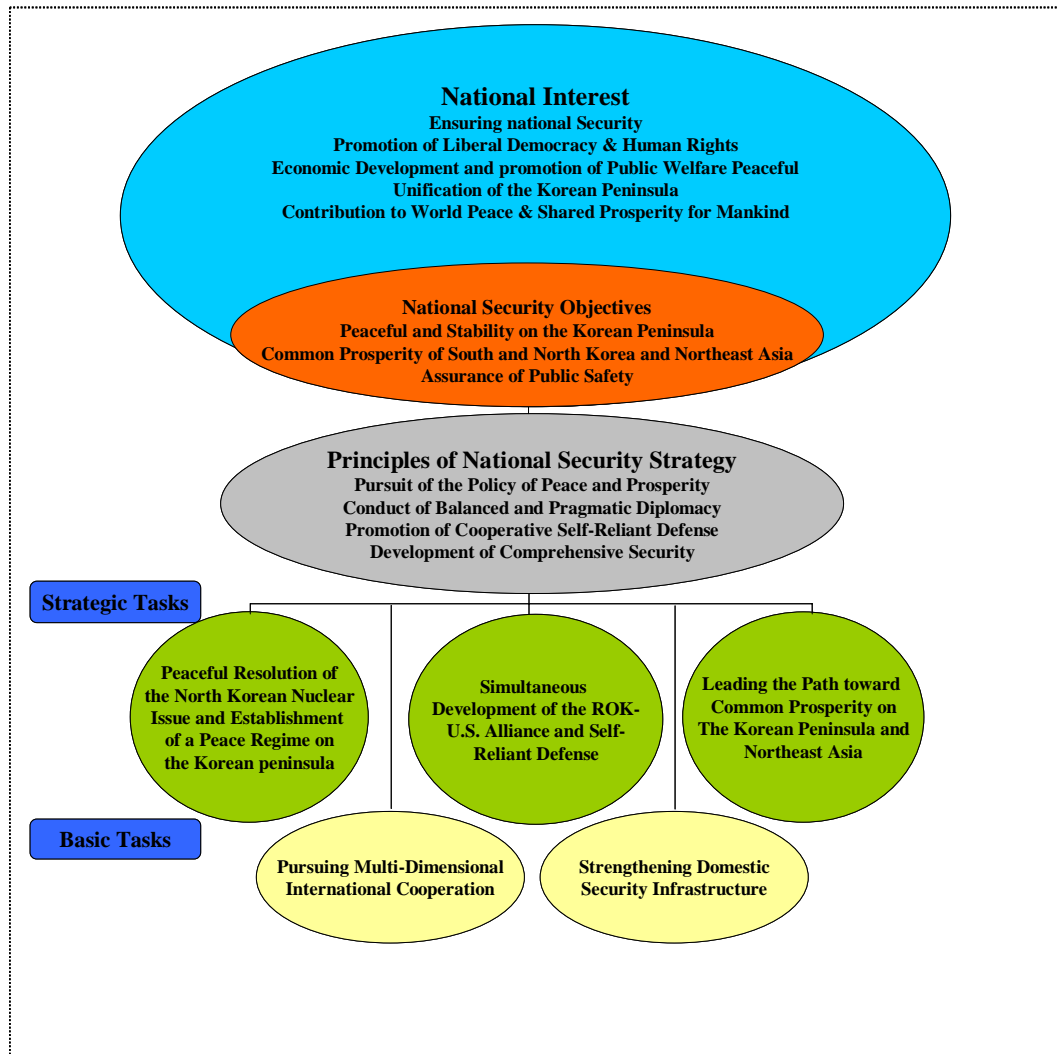


Figure 1. The ROK National Security Strategy

## 2. Basic Direction of Defense Policy

According to the Defense White Paper 2004, the ROK military establishes and pursues national defense objectives and key points to accomplish the national security

goals in today's rapidly changing security environments and defense conditions.<sup>9</sup> The national defense objectives are as follows:

- **Defending the Nation from External Military Threats and Invasion:** The first goal is “protecting the country from direct military threats from North Korea—including its conventional military capabilities, weapons of mass destruction, and forward military deployment—as well as other external military threats to the nation’s right to survival.”<sup>10</sup>
- **Upholding Peaceful Unification:** The ROK military strives to realize a peaceful unification between the South and North Korea by deterring war, reducing military tension, and bringing permanent peace to the Korean Peninsula.<sup>11</sup>
- **Contributing to Regional Stability and World Peace:** This goal represents the firm determination of the ROK Government to promote military cooperation with neighboring nations and actively participate in international efforts to preserve world peace—such as UN peacekeeping operations.<sup>12</sup>

To achieve the national security goals and defense objectives, the MND has consistently focused its effort on key defense points:

- **Establishment of a Firm Defense Posture:** The ROK military must sustain the military stability on the peninsula and the seas around it by preparing itself for any type of regular and irregular military provocation by North Korea or terrorist groups. The MND must balance its effort with this particular defense point; the ROK defense posture also has to be a part of ongoing inter-Korean exchange and cooperation programs.

The ROK Government works in conjunction with the ROK-US combined defense system playing a pivotal role in deterring military conflict on the Korean Peninsula. The

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<sup>9</sup> The Republic of Korea Ministry of National Defense, Defense White Paper (Seoul: 2004), 53.

<sup>10</sup> Ibid.

<sup>11</sup> Ibid.

<sup>12</sup> Ibid.

ROK military relies heavily on U.S. military intelligence assets and early warning systems in order to monitor North Korean military movements to preclude further intentions of North.

- **Pursuit of Cooperative Self-Reliant Defense:** The two major components of the security of South Korea are “the self-reliant defense”<sup>13</sup> and the ROK-US alliance. The ROK Government firmly believes that a core element of its defense policy is a strategy of self-reliant defense. The self-reliant defense has become even more important as the ROK Government must prepare itself in accordance with a new strategic environment as the United States Forces Korea (USFK) readjusts its location, size, and role in South Korea. The self-reliant defense will also be important to the ROK Government when today’s international environments cannot specify or predict who will or will not be friendly in the future. In addition, the ROK military plans to establish a war executing system, centered on the ROK Joint Chiefs of Staff, by reorganizing the military and by strengthening the roles of the JCS.
- **Consistent Pursuit of Defense Reforms:** The ROK military is reinforcing its military efficiency and capabilities through constant self-evaluation and reforms. On September 12, 2005, the Ministry of National Defense (MND) unveiled its reform plan, known as the “Defense Reform Plan 2020,” for the Republic of Korea Armed Forces to build a small but strong military. More information on this topic is found in Chapter II, ROK Army Manpower Force Structure.
- **Establishing the Image of a Trustworthy Military:** If the military lacks full support and trust from its people, even the finest combination of elite soldiers and hi-tech equipment cannot guarantee a victory in war. Several negative incidents undermined the image of a trustworthy military: the ongoing allegation of past military exemptions for a significant number of sons of public figures; the scandal of the general promotion board of the ROK Army; the shooting rampage at a general post in DMZ; the

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<sup>13</sup> The Republic of Korea Ministry of National Defense, Defense White Paper (Seoul: 2004), 56.

disappearance of an ROK Navy special operation vessel; and the accidental crash of ROK Air Force jet fighters in 2005. The MND continues to develop and adopt a desirable military culture through internal reforms and commits itself to protecting and promoting safety and the interests of the people. This is accomplished by providing support in the event of regional and national disaster management as one of its basic peacetime duties.

### **3. Army Objectives and Missions**

The missions of the ROK Army are driven by the objectives depicted in Figure 2. In line with the four objectives, the core mission of the Army is to develop itself into a prepared, elite army that will deter war and gain victory if deterrence fails against eminent and potential adversaries. A tangible term, “an elite Army,” in manpower perspectives, pertains to the first essential element of military power defined in Chapter I of this research—the human resource element.

In order to cultivate the elite force mentioned above, an essential prerequisite is “the quantitative slimming and qualitative specialization of force,”<sup>14</sup> because reform requires difficult programmatic and organizational choices that lead to divesting in some areas while investing in others.<sup>15</sup> An intrinsic nature of any defense community under a democratic government includes a defense budget that has almost no margin of flexibility. The only course of action is to downsize and reallocate the surplus from the downsizing to cultivate a better-trained and better-equipped military. Therefore, a manpower force structure of the downsized ROK Army must consist of personnel who are better trained and more specialized to employ newly resourced military assets. Under the current conscription laws, it will be most cost effective to invest more on officers and NCOs through qualitative specialization. Hence, it is proper for the Reform Plan to anticipate an increased ratio of officers to enlisted personnel, from 25:75 to 40:60. ,

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<sup>14</sup> Young Jin Cho, Kwan Ho Cho, Kil Ho Chung, Ju Sunge Chung, Won Bae Lee, and Ahn Sik Kim, *Defense Manpower Development Plan for an Elite Force* (Seoul: Korea Institute for Defense Analyses, 2005), 35.

<sup>15</sup> The US Department of Defense, Appendix D, *Force Structure Plan: the Department of Defense Base Closure and Realignment* (Washington D.C., the DoD, 2005), D-2.

questions remain, as there is no guidance on how to accomplish this task while working with many subordinate ROK Army units with various sizes and missions.

- **Cultivate an Elite Force:** Future objectives can be achieved only when the ROK Army cultivates itself to become an elite force. Therefore, this objective must be a prerequisite for the following three:
- **Deterring War:** The ROK Army, as the main force of national defense, contributes its service to deter wars.
- **Gain Victory on Ground Warfare:** The North Korean military today maintains an approximate 1,000,000-strong army force and 100,000 special operations forces. Therefore, the ROK Army believes that any kind of war should ultimately be resolved by the ground component of the military.
- **Support the Safety and Interests of Korean People:** This objective is based on the fourth key defense point set by the MND. A peacetime mission of the ROK Army is to provide safety, to support Korean citizens' interests, and to establish "the image of a trustworthy military."

## **B. DEFENSE REFORM PLAN 2020**

As noted in Chapter I, the ROK MND introduced Defense Reform Plan 2020 in September 2005. In anticipation of building a smaller but stronger military, the Republic of Korea has worked to transform its military through modernizations for many years. The story goes back to the 1970s when President Jung-Hee Park asserted that the Republic of Korea must meet the conditions of a true, self-reliant, national defense. The public sentiment is in favor of a defense reform because the current defense systems have been in place for a half century, and they must be closely reviewed to develop the ROK military into an organization more capable of executing modern warfare. Throughout past administrations, many efforts were made in vain, failing for various reasons both inside and outside the ROK military. Last year's Defense Reform Plan 2020 (by the MND of the Participatory Government) has gained general support, so far, from the opposition party as well as from the majority of the Korean population. Many obstacles remain to be overcome; one of them is a reform in the ROK military manpower force

structure. By definition, from the Revolution of Military Affairs (RMA), there are four essential elements in the concept of RMA: new technology, new weapons systems, new operations concepts, and a new force structure. If the force structure does not evolve with other elements of the RMA, not only do the other three elements fail to function properly, but the effort of the RMA also is incomplete.<sup>16\</sup>



Figure 2. The ROK Army Missions

## 1. Background

The MND foresees, near the year 2020, defense environments as follows:

- Worldwide: The United States will maintain its initiatives formulating world orders. Whereas a possibility of all-out war will decrease, regional conflicts will continue and supra-national threats will increase.
- Northeast Asia: Despite increased inter-dependability among neighboring nations, the possibility of instability will continue because of the permanent issues of regional conflicts. Therefore, nations in the area will continue to increase their military capabilities.

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<sup>16</sup> Richard O. Hundley, *Past Revolutions, Future Transformations: What Can the History of Revolutions in Military Affairs Tell Us about Transforming the U.S. Military?* (Santa Monica: RAND, 1999).

- The Korean Peninsula: The Republic of Korea will surface as one of the main actors in Northeast Asia, whereas North Korea will fall far behind the South. As the ROK-US alliance continues to develop, the role of the ROK military will expand.

In summary, the MND predicts that, as the military threat of North Korea gradually decreases, non-military and supra-national threats in Northeast Asia will grow. Therefore, in order to proactively offset any potential threats in the region, the MND believes it is imperative for the Republic of Korea to understand the comprehensive security concept and act upon the dynamic security environments in the region.<sup>17</sup> However, the current ROK defense systems possess several, post-modern military predicaments that have been passed down for more than 50 years, hindering the nation from taking active roles in the region:

- First, the ROK military has maintained a mostly army-centered and personnel-dependent organization, based on the eminent threat of North Korea, which maintains a vast army-oriented military. This inherent strategic military culture resulted in an unbalanced defense development among the three service branches and, therefore, limited the ability to develop joint capabilities. Such personnel dependency will cause the ROK military unfit for the future battlefields due to a fact that future battlefields will require well-trained and specialized personnel within flexible force structures to operate highly digitized and mechanized military assets in various scenarios of unpredictable security environments. This problem suggests that, despite the ROK military's desire to play an expanded role within unpredictable security environments in the future, its current force structures are not based on a mindset of capabilities-based planning. The existence of such a dilemma is easily observed when knowing that no MND document was published—prior to the Reform Plan—to suggest adequate capabilities of the ROK military in the future. The main theme of this research is highly related to

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<sup>17</sup> The ROK Ministry of National Defense, The Defense Reform Plan 2020 (Seoul, The MND, 2005), 5.

this dilemma, because force structure planning must be based on a solid, strategic vision of future capabilities of the ROK military. Section 2 of this chapter will discuss more on this issue.

- Second, there is an overall ineffectiveness in the ROK defense systems because of a lack of successful reform in defense management. In addition, despite such limited defense resources that have little margin of flexibility, the demand for the military to support the safety and interests of the people, and the welfare of soldiers, continues to grow.
- Third, the ROK military must agree that the combined defense posture of the ROK-US is not well balanced. The ROK military has not been able to develop strategic and military doctrines suited for its own defense environment on the Korean Peninsula. This has resulted in limited capabilities in operation planning and execution, and a heavy dependency on the U.S. military for its national defense. Such consistent dependency on the U.S. ally must not be interpreted as cooperation, and it will not guarantee the expanded role of South Korea in the Northeast Asia region.
- Fourth, the twenty-first century battlefield demands the continuous development of information and scientific technologies in the military. Long-range and high-precision weaponry has broadened today's battleground. On the other hand, the network centric warfare (NCW) is increasingly gaining more importance than ever. The trends of modern warfare require the ROK military to cultivate proper capabilities suited for the twenty-first century battlefield.
- Fifth, the MND has set four major emphases for the Reform Plan as depicted in Figure 3.<sup>18</sup> The first emphasis mainly pertains to this research and is discussed in this chapter. The second emphasis is on civil control of the ROK defense community, allowing the military to concentrate solely on its inherent purpose—fighting wars. According to the Reform

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<sup>18</sup> The ROK Ministry of National Defense, The Defense Reform Plan 2020 (Seoul, The MND, 2005), 9.

Plan, the current defense civilian employment cap in the MND will be increased from 52% to 71% by the end of 2009. The third emphasis is mainly concerned with the cost effectiveness of the ROK defense management systems. With scarce defense resources, it is imperative for the MND to devise cost-effective defense management systems.

- Lastly, the ROK Army refers to itself as “the People’s Army.” All Korean males over the age of 18 years are required to serve in the military, as most of them do. After 24 months of service (or 26 months for the Navy and 28 months for the Air Force), they return to society where they will compose the majority of male citizens of the Korean population. For this reason, the Army is impartibly connected to the people—especially as their young sons are, or will serve in the Army. Therefore, improving the welfare of soldiers, up to their minimum standards, must not be underestimated, but taken as a great challenge for the MND.

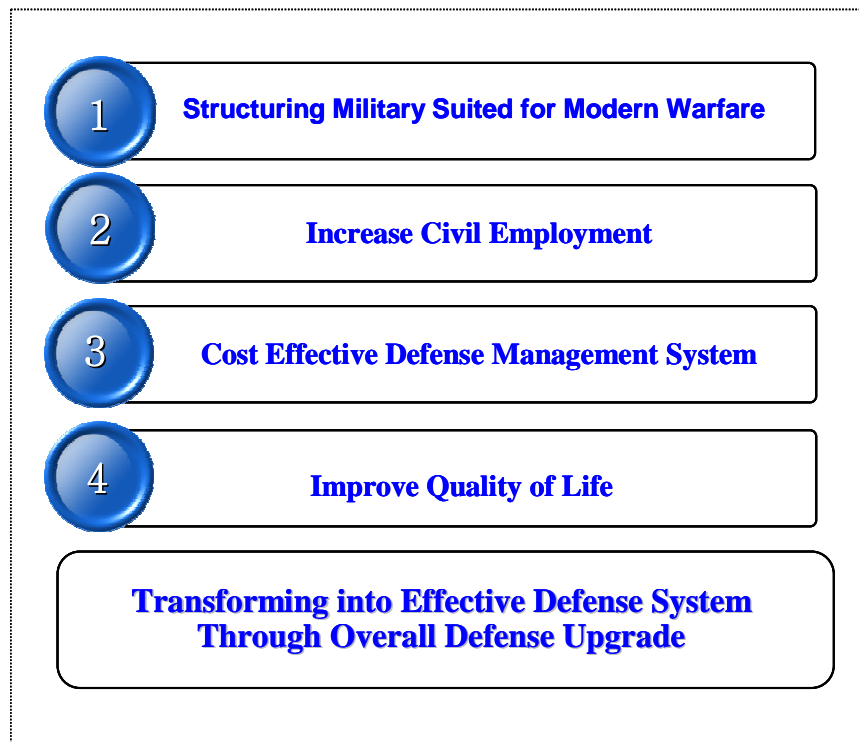


Figure 3. Major Focus of the Defense Reform

## **2. Current Army Manpower Force Structure**

### ***a. Threat-Based Force Structure Planning***

The military strengths between South and North Korea are illustrated in Table 1.<sup>19</sup> The current size and structure of the ROK military is unfit to the MND's future prospects of defense environments. This is true because the current ROK military force structures are founded on a threat-based concept on the assumption that the North Korean military will be the only threat to South Korean national securities in the future. This, in fact, has been updated in the Reform Plan. The eminent threat from North Korea will gradually decrease while the possibility of instability in Northeast Asia will continue due to the permanent issues of regional conflicts. Hence, nations in the region will continue to increase their military capabilities.<sup>20</sup> If the ROK Government truly foresees itself as playing an expanded role in Northeast Asia, its mindset should no longer be fixed on such threat-based planning.

This does not imply, however, that the eminent threat from North Korea should be disregarded in future force structure planning. Therefore, it is a challenge for the ROK military to maintain current military competency against North Korea, while shifting its main objective of transforming into a military suited for future defense environments. This is the dilemma of current ROK MND, introduced earlier in this chapter. The only solution seems to be a defense reform of ROK military into armed forces capable of accomplishing both challenges.

Concerning the current quantitative advantage of the North Korean military, there must be qualitative and core military capabilities to offset threats from such adversaries on modern battlefields. Instead of maintaining a personnel-intense military, the ROK Armed forces will have to overcome the quantitatively immense North Korean military by its qualitative advantages—flexible capabilities generated from an adequate mix of human and physical resource elements.

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<sup>19</sup> The Republic of Korea Ministry of National Defense, Defense White Paper (Seoul: 2004), 289.

<sup>20</sup> The ROK Ministry of National Defense, The Defense Reform Plan 2020 (Seoul, The MND, 2005), 5.

Table 1. The Comparative Military Strengths Between the South and North Korea

				South Korea	North Korea
Troops (Peacetime)		Total		681,000	1,170,000
		Army		550,000	1,000,000
		Navy		67,000	60,000
		Air Force		64,000	110,000
Principle Force Capabilities	Army	Unit	Corps	13	19
			Divisions	49	75
			Mobile Brigades	19	69
		Equipment	Tanks	2,300	3,700
			Armored Vehicles	2,400	2,100
			Field Artillery	5,100	8,700
			MLRS	200	4,600
			SS Guided Missiles	30 (Launchers)	60 (Launchers)
	Navy	Surface	Warships	120	430
			Landing Crafts	10	260
			Mine Warfare Ships	10	30
			Support Vessels	20	30
	Air Force	Fighters		530	830
		Special Aircrafts		70	30
		Support Aircrafts		200	520
	Helicopters			690	320
Reserve Troops				3,040,000	7,700,000

***b. Manpower Ratios within the Current ROK Army***

The ROK Army manpower force structure is simply defined as “an excessively personnel centric structure.”<sup>21</sup> The manpower force structure of the ROK Army, by far, remains personnel intense, because the threat from North Korea mainly consists of its vast army of more than 1,000,000 personnel. Additionally, the ROK accession system heavily depends on the nation’s compulsory military service requirement. The ROK military has never had a problem filling recruiting quotas like the US military is currently experiencing.

<sup>21</sup> Chung Je Park, “The Direction of ROK Military Defense Reform,” Korea Defense Review, (September 2005), 84.

Current ROK officers, non-commissioned officers (NCOs), and enlisted personnel ratios for each branch of service are illustrated in Table 222. The aggregate ratio between officers and NCOs to enlisted personnel is 25:75. The Army ratio of officers is further reduced to 20%, increasing the percentage of enlisted personnel to 80%. The Reform Plan does not specify the number of NCOs or its percentage in the officer ratio. The duties and responsibilities of officers and NCOs are clearly different and the ROK military maintains distinctively different personnel systems (including accession, training, promotion, compensation, and personnel management separately between commissioned officers and non-commissioned officers. Therefore, the current ratio of 20% of the officers must be divided into at least two groups: officers (including warrant officers) and NCOs, (if not three groups, for officers, warrant officers, and NCOs). In this research, the current ratio of 20:80 between officers to enlisted personnel will be re-categorized into the ratio of officers (including warrant officers) to NCOs and to enlisted personnel of the ROK Army, which is 9:11:80. It should be noted that the ratios have been rounded from actual numbers of 8.7:11.3:80.<sup>23</sup> In addition, another distinction must be made between enlisted personnel and NCOs. Normally, when one refers to an enlisted man in the ROK Army, he is between E-1 and E-4. These personnel are strictly those who serve in the ROK Army for 24 months to fulfill their obligations of the Conscription. Therefore, those with the rank of E-5 and above are NCOs in the ROK Army. However, this rank system only applies to the ROK military, and the research clarifies the different rank systems of NCOs among different militaries in Chapter IV.

The 9:11:80 ratios among officers, NCOs, and enlisted personnel of the ROK Army clearly show that the current ROK Army manpower structure depends excessively upon the enlisted group whose turnover rate, by nature of the conscription law, is very high. Currently, an Army enlisted man serves for 24 months and is then discharged to become a reservist for the next seven years. To structure the ROK Army into a technology-oriented force, a significant amount of manpower training and education will be needed to employ the newly resourced military assets.

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<sup>22</sup> Je Park, "The Direction of ROK Military Defense Reform," 84.

<sup>23</sup>Ibid.

Table 2. Ratios Among Officers, NCOs, and Enlisted Personnel

Status	Army		Navy		Air Force	
Officer(%)	20.0	8.7	43.3	11.2	44.4	14.5
NCO(%)		11.3		33.1		29.9
Enlisted(%)	80.0		56.7		55.6	

*c. Capabilities-Based Force Structure Planning*

The Reform Plan objective and direction for military force structure—to be accomplished by the end of 2020—is as follows:

- Objective: Transform the ROK military from the quantitative pre-modern structure of personnel intensity into a qualitative technology-oriented structure.
- Direction:
  - Reform the current military into one suitable to perform future warfare while maintaining the military readiness against the North.
  - Gradual specialization of manpower, linking knowledge and ability with hi-tech weapons systems.<sup>24</sup>

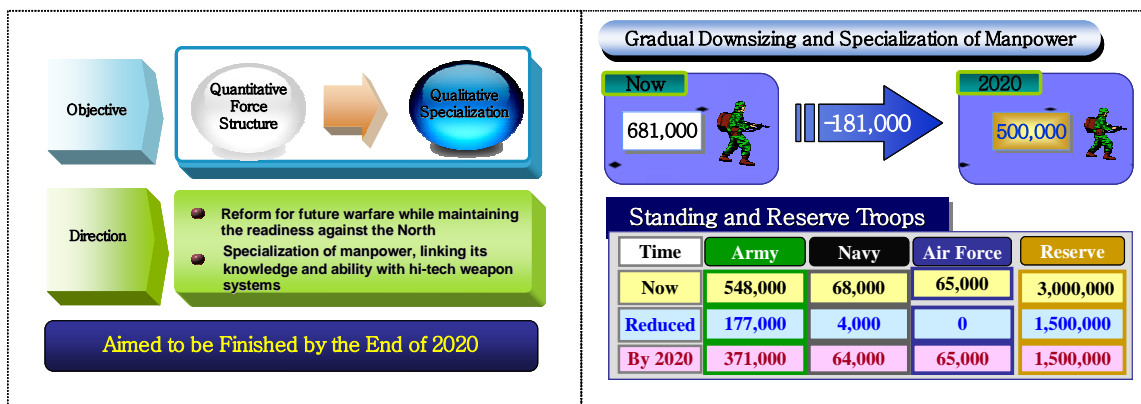


Figure 4. Manpower Reform in Defense Reform Plan 2020

<sup>24</sup> The ROK Ministry of National Defense, The Defense Reform Plan 2020 (Seoul, The MND, 2005), 34.

The objective and directions of the Reform Plan are shown in Figure 4.<sup>25</sup> As noted in Chapter I, the direction of the Defense Reform has specifically identified the two essential elements of a military power: the physical resource elements and the human resource elements. If a military power is to be maximized, these two elements must be cultivated in a reciprocal and synergistic manner. In other words, to transform a military that has been very personnel dependent in the past, into one equipped with future technologies and information science, “qualitative elitism”<sup>26</sup> in a military manpower force structure is an essential prerequisite.

Capabilities-based planning of the ROK Army force structure must start from this framework. It does not focus on specific conflicts with fixed adversaries. The United States Department of Defense clearly provides guidance on how capabilities-based planning starts from a framework that “helps determine capabilities required for a range of scenarios.” Then, the MND must analyze “the force requirements for the most likely, the most dangerous, and the most demanding circumstances.”<sup>27</sup> When the MND unveiled its defense reform plan, it must have conducted a strategic approach based on future capabilities of the ROK military.

### **3. Defense Reform Plan 2020 Structure**

As introduced in Chapter I, the MND plans to reduce ROK military force structure by about 181,000 personnel (as depicted in the right half of Figure 4<sup>28</sup>) over the next 15 years. While doing so the MND plans to adjust the officers to enlisted personnel or the 181,000 to be cut from about 25:75 to 40:60.<sup>29</sup> The Army expects approximately 177,000 (97.8 percent) of the 181,000 to be cut. The reduction is being accomplished by reducing middle and upper level units. For example, by the year 2020, the Reform Plan anticipates cutting one out of three field armies, four out of 10 corps and 27 out of 47

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<sup>25</sup> The ROK Ministry of National Defense, The Defense Reform Plan 2020 (Seoul, The MND, 2005), 34-37.

<sup>26</sup> Young Jin, Cho, Kwan Ho Cho, Kil Ho Chung, Ju Sunge Chung, Won Bae Lee, and Ahn Sik Kim, Defense Manpower Development Plan for an Elite Force (Seoul: Korea Institute for Defense Analyses, 2005), 35.

<sup>27</sup> The US Department of Defense, Appendix D, Force Structure Plan: the Department of Defense Base Closure and Realignment (Washington D.C., the DoD, 2005), D-1.

<sup>28</sup> The ROK Ministry of National Defense, The Defense Reform Plan 2020 (Seoul, The MND, 2005), 34-37

<sup>29</sup> Ibid., 16.

divisions in the ROK Army.<sup>30</sup> The Military Structure Task Force, under the MND, calculated the 40:60 ratio through a Top-Down approach. This approach was chosen because of the upper-level decision makers' visualization and articulation of the new strategic plan for their organization. However, the actual implementation of this high-level plan requires detailed works performed by many functions within the organization. For instance, in order to realize the long-term targeted ratio between officers and enlisted personnel, manpower planners must develop a force structure that conforms to the 40:60. Challenges exist due to numerous organic units within the organization that must be reorganized along the chain of command. Because targeted ratios must be equal to the aggregated sum of manpower ratios from each unit to contribute to the strategic objective of the ROK Military. Additionally, the planners must understand this is a multi-faceted task. Other aspects, such as Tables of Organizations and Equipments (TO&Es), the defense budget, accession systems, and manpower management, must be reviewed in conjunction with the manpower force structure changes.

Unlike the US Army, which uses the ratio of enlisted personnel to commissioned and warrant officers known as the "E:O Ratio,"<sup>31</sup> the ROK Defense Manpower community uses either a ratio of officers (including warrant officers) to NCOs and to enlisted personnel, or a ratio of officers (including warrant officers and NCOs) to enlisted personnel. In order to be consistent throughout the research, the former case will be used (the ratio of officers to NCOs and to enlisted personnel).

#### **4. Limitations and Challenges**

A comparative illustration of the ratios of officers, NCOs, and enlisted personnel of the ROK Army to other armies in advanced foreign militaries is shown in Table 3<sup>32</sup>. These countries do not maintain their militaries on conscription-based accessions systems, and have different economic capabilities, cultures, and rank systems. Therefore, a definite comparison may not be feasible. It is nevertheless meaningful to analyze, in

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<sup>30</sup> Kwan Ho Cho, "Direction of Manpower Structures Development for a Successful Defense Reform," Weekly Defense Journal, (January 2006), 38.

<sup>31</sup> Scott T. Nestler, Army Magazine, February 2004, <<http://www.ausa.org/webpub/DeptArmyMagazine.nsf/byid/CCRN-6CCSBW>>

<sup>32</sup> Kwan Ho Cho, "Direction of Manpower Structures Development for a Successful Defense Reform," Weekly Defense Journal, (January 2006).

order to establish a future direction of the ROK Army in its manpower force structures. There are three distinct differences between the ROK military and others as follows:

- In general, the ratio of officers (commissioned warrant and non-commissioned combined) to the rest of the armies is between 50% and 60%, while the ROK Army currently maintains only 20%.
- The ROK Army maintains about 9% (rounded up from 8.7) commissioned officers, whereas other armies maintain their officer corps between 10% and 14%.
- A difference becomes even more notable in the ratios of NCOs. Other advanced armies maintain between 36% and 48% of NCOs, while only about 11% (rounded down from 11.3) of the entire ROK Army is comprised of NCOs.

Table 3. Officers, NCOs and Enlisted Personnel Ratios By Country

<b>Ratios</b>	<b>Army</b>	<b>Navy</b>	<b>Air Force</b>	<b>Overall</b>
<b>Republic of Korea</b>	<b>9:11:80</b>	<b>11:32:57</b>	<b>14:31:55</b>	<b>10:15:75</b>
<b>The United States</b>	<b>14:40:46</b>	<b>13:40:47</b>	<b>20:43:37</b>	<b>15:41:44</b>
<b>The United Kingdom</b>	<b>14:36:50</b>	<b>19:45:36</b>	<b>21:44:35</b>	<b>17:40:43</b>
<b>Germany</b>	<b>10:47:43</b>	<b>15:59:26</b>	<b>12:58:28</b>	<b>11:51:38</b>
<b>Japan</b>	<b>13:48:38</b>	<b>20:55:26</b>	<b>19:56:25</b>	<b>15:51:34</b>
<b>France</b>	<b>12:36:52</b>	<b>11:66:23</b>	<b>11:59:30</b>	<b>11:47:42</b>

The United States of officer ratios (commissioned, warrant, and non-commissioned combined) increased from 47% in the 1980s to 56 percent in the 2000s.

This trend was also observed in the German military where the ratio in 1997 was 55 percent, and will increase to 63 percent.<sup>33</sup> From comparative analyses, future ROK military manpower force structures must be officer-centered, focusing mainly on increasing the ratio of NCOs in places currently held by commissioned officers and enlisted personnel. Research shows that today's advanced international militaries maintain higher percentages of trained NCOs in order to execute a technology-oriented military force on the twenty-first century battlefield. In order to give a numerical magnitude of this difference, Table 4 is presented as a comparison of manpower strengths of the ROK Army and the most current manpower strength of the U.S. ground forces in Fiscal Year 2005—in numbers and ratios with the ROK Army as the base case.

Table 4. Manpower Comparison Among the ROK, the US Army and US Marine Corps

	Officers	NCOs	Enlisted	Total Number	Manpower Ratios	Ratio Δ
<b>ROK Army</b>	<b>49,320</b>	<b>60,280</b>	<b>438,400</b>	<b>548,000</b>	<b>9.0:11.0:80.0</b>	<b>0:0:0</b>
<b>U.S. Army</b>	<b>80,295</b>	<b>190,211</b>	<b>216,904</b>	<b>487,410</b>	<b>16.5:39.0:44.5</b>	<b>7.5:28.0:-36.5</b>
<b>USMC</b>	<b>18,690</b>	<b>85,079</b>	<b>75,116</b>	<b>178,885</b>	<b>10.4:47.6:42.0</b>	<b>1.4:36.6:-38.0</b>

Challenges to be overcome using the Top-Down approach are:

- The targeted ratio of 40:60 between officers and enlisted personnel mentioned in the Defense Reform do not clearly indicate how the officer ratio of 40 percent will be divided between commissioned officers and NCOs.
- The actual implementation of this method requires an aggregate manpower force structure plan of many units within the ROK Army,

<sup>33</sup> Kwan Ho Cho, "Direction of Manpower Structures Development for a Successful Defense Reform," Weekly Defense Journal, (January 2006).

known as Bottom-Up approaches. Therefore, a real challenge lies ahead

for the ROK Army: conducting necessary Bottom-Up approaches that will finalize an overall manpower force structure through staffing of individual units within the ROK Army.

- In order to man and equip a unit, an adequate capability of the unit must be defined as a prerequisite. A future ROK Army unit must be in parallel with the Army objective and missions incorporated into the Defense Reform objectives and directions which are:
  - Transform the Army into a qualitative technology-oriented structure.
  - Reform the current Army, to make it suitable to perform future warfare, while maintaining the military readiness against the North.
  - Gradual specialization of manpower, linked with the actualizing of hi-tech weapon systems<sup>34</sup>.

In summary, the smaller ROK Army, through its qualitative elitism and modernization, must be flexible to properly deter the eminent threat from North Korea in conjunction with prepared capabilities against unspecific threats around the Korean Peninsula.

## C. CHAPTER SUMMARY

This chapter reviewed the current ROK Army manpower force structure and showed that the ROK Army maintains, “an excessively personnel centric structure”<sup>35</sup>mainly focused on enlisted personnel. With the current manpower ratios of 9:11:80 among commissioned officers, NCOs, and enlisted personnel, it has been clearly proven that the current ROK Army lacks an adequate manpower force structure demanded for twenty-first century battlefields. The right mix of human resources—

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<sup>34</sup> The ROK Ministry of National Defense, The Defense Reform Plan 2020 (Seoul, The MND, 2005), 34

<sup>35</sup> Je Park, “The Direction of ROK Military Defense Reform,” 84.

comprising the proper skills, education, and training—are crucial to execute missions in a new, technology-oriented armed force. In order to develop the ROK Army into such an armed force, it must increase the percentage of commissioned officers and NCOs, and it must put significantly more weight on the ROK NCO Corps.

The research also showed that a smaller but stronger army involves more than simply cutting down its size and introducing new weaponry; it is a multi-faced task where several factors must be reviewed from different angles. When establishing a broad future direction of the ROK Army manpower force structure, a Top-Down approach, as introduced in the Defense Reform Plan 2020<sup>is</sup> but must be followed by numerous Bottom-Up approaches that conform with Top-Down planning. To accomplish these tasks, a capabilities-based structural planning, that provides flexibility in order to deter the current North Korean threat while preparing itself for unspecified threats in Northeast Asia. Additionally, the chapter also pointed out that the ROK Army should not underestimate the threat from North Korea. The current ROK MND dilemma must be resolved through the Reform Plan by transforming the ROK military into armed forces capable of accomplishing both challenges: current threats and potential future threats. In the next chapter, the research will conduct a factors analysis of the ROK Army to see which factors must be reviewed when determining such capabilities for the future ROK Army, and why these numbers should represent an adequate ratio of the future ROK Army manpower.

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### **III. ROK ARMY MANPOWER FORCE STRUCTURE FACTORS ANALYSIS**

#### **A. BACKGROUND**

Building a military organization and its force structure is a comprehensive, multi-faceted process. As mentioned in Chapter II, the Revolution in Military Affairs (RMA) has at least four required elements: new technology, weapon systems, concept of operation, and force structure. These elements synergize to create a change in a military's capability. Since there are no factors identified in the Defense Reform Plan 2020 (the Reform Plan), this chapter will identify factors that will contribute to the future Republic of Korea (ROK) Army manpower force structure. This analysis will estimate the type and size of capabilities the ROK Army should possess in accordance with various internal and external factors. ROK Army manpower planners must identify specific equipment, manpower strength, and its ratios among officers, non-commissioned officers (NCOs), and enlisted personnel for each organic unit of the ROK Army, and then finalize the ROK Army manpower force structure. Prior to conducting an ROK infantry battalion Bottom-Up review, required capabilities must be identified. This will be accomplished through a comparative analysis of several infantry battalions of different ground forces.

#### **1. ROK Army Force Structure Factors**

The allocation and planning of scarce defense resources is a complicated process that involves many factors that directly and indirectly affect national security. According to Lloyd, strategy and force structure are rationales for force planning. In his view, a force structure can be most effective when it is continuously reviewed, revised, and practiced against national security strategy and military strategy.<sup>36</sup> In the ROK Army, various factors and characteristics are found, and these are subject to continuous reviews during and after the development of its manpower force structure:

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<sup>36</sup> Richmond M. Lloyd, "Strategy and Force Planning Framework" Strategy and Force Planning (Newport, RI: Naval War College Press, 1995): 1-14.

*a. Military Threat*

(1) The Eminent Threat. Even after the inter-Korean summit in June 2000, North Korea maintained its military unchanged. This is mainly due to the Songun Chongch'i (translated into "Military First") policy, which is in essence a "politics which solves all problems arising in the revolution and construction on the principle of giving priority to the military affair and advances the overall cause of socialism relying on the army as the pillar of the revolution."<sup>37</sup> The Military First policy has been attaching greater weight to the political role of the military. Based on this policy, North Korea continues to maintain its conventional and asymmetrical military capabilities, with increasing focus on the latter. Against its eminent adversary, the ROK military has identified five major military threats from North Korea:

- Nuclear, biological, and chemical (NBC) weaponry: Even though there is no solid evidence indicating North Korea possesses nuclear weapons, it is suspected that North Korea may have produced one or two nuclear weapons with about 10 to 14 Kg of weapons-grade plutonium.<sup>38</sup> However, there are several confirmed chemical factories producing various toxic agents in the North as well as separate storage facilities at different locations. This situation leads to a conclusion that approximately 2,500 to 5,000 tons of toxic agents have been produced and stored for use. When these NBC assets are combined with the mid/long-range missiles or long-range artilleries, North Korea can pose a great threat of Weapons of Mass Destruction (WMD) against the Northeast Asian region, including the ROK Government.
- Long-range Artilleries: The Seoul Metropolitan Area of the ROK is within the range of 170mm self-propelled artillery tubes and 240mm multiple rocket launchers deployed in the forward area. Most of them have already been in fixed positions in numerous tunnels and have zeroed in on their targets. During the first nuclear crisis in the early 1990s, North

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<sup>37</sup> "Songun Chonch'i," Global Security <http://www.globalsecurity.org/military/world/dprk/songun-chongchi.htm> (Last accessed 02/17/06)

<sup>38</sup> The Republic of Korea Ministry of National Defense, Defense White Paper (Seoul: 2004), 44.

Korea warned that it would turn the ROK capital of Seoul into a “sea of fire” if the U.S. and ROK continued to provoke and condemn the North for nuclear development. The ROK assumes the North Korean warning had its basis in the firepower of long-range artilleries. They would be a major means of attack during the initial phase of a possible future war scenario.

- Special Operation Forces (SOF): North Korea maintains more than 100,000 SOF units trained for deployment into South Korea prior to and during the initial phase of war. They would be deployed via various infiltration routes to derange the ROK rear area by sabotaging war support facilities and assassinating the ROK leadership.
- Armored Assets: North Korea is assumed to maintain about 5,800 tanks and armored vehicles. In order for the North to speed up and end its war efforts before the Reception, Staging, Onward Movement and Integration (RSO & I) of the US military into war, these assets would be deployed during the early phase of war.
- Air Assets: There are about 1,380 fixed-wing aircraft owned by the North Korean Air Force, including jet fighters and support aircrafts. They would be deployed during the early phase of war for the same reason as mentioned above on the North Korean armored assets.

It is notable that three of the five North Korean threats are directed from its ground forces: long-range artilleries, SOF, and armored assets. Since the eminent threat maintains a huge ground force, the ROK military must also maintain capabilities to balance against them. Based on the five major military threats of North Korea, counter measuring capabilities, currently limited or lacked in the ROK Army, are summarized in Table 4. The current situation on the Korean Peninsula is quite different from one the United States faced after the collapse of the Soviet Union in the early 1990s. The threat from North Korea still exists today; therefore, the ROK Army must include

this threat analysis in its capabilities-based planning, while identifying other capabilities suited for the future security environments.

Table 5. The North Korean Threats and the ROK Counter Measures

<b>The North Korea Threats</b>	<b>Limitation and Weakness</b>	<b>Limited or Lacking Capabilities in the ROK Army</b>
<b>Nuclear, biological and chemical (NBC) weaponry</b>	- Locations already identified	- Non Applicable for the ROK Army: Precision attacks: F-15, B-2 and Joint Direct Attack Munitions (JDAM) by ROK-US Combined Operations
<b>Long-range Artilleries</b>	- Low fire rates (30 minutes for reloading)	- Counter Fire Assets: AN/TPQ-36 & 37 and K-9 - Multi Launching Rocket Systems (MLRS) - ROK-US Combined Air Assets: F-15, F-117 and B-2 - Joint Direct Attack Munitions (JDAM) - Guided Bomb Unit (GBU) – 28: Bunker Busters
<b>Special Operation Forces (SOF)</b>	- Lightly equipped - Limited infiltration methods - No line of communications - Dystrophy of the troops	- Counter infiltration operations - Homeland Defense Reserve Force - Enhanced lower unit level maneuverability required - Enhanced lower unit level anti-air capabilities required
<b>Armored Assets</b>	- Mostly obsolete equipments - Logistic insufficiency - Limited line of communications	- ROK-US Aviation Assets - Enhanced lower unit level anti-armor capabilities required
<b>Air Assets</b>	- Mostly obsolete equipments - Logistic insufficiency	- ROK-US combined air assets - Enhanced lower unit level anti-air capabilities required

According to the summarized table above, the ROK Army must enhance its lower ground units with:

- Counter NBC capabilities: For example, a ROK infantry battalion is inherently vulnerable against an enemy's tactical biological and chemical attacks in a sense of limited decontamination equipments, other than basic NBC protection capabilities. Also, there is no specified officer who is in

charge of NBC protection training against a North Korean NBC attack. Currently, such training is conducted by each company's NCOs through "Soldier's Basic Training Curriculum" in accordance with the battalion's annual training schedules. Also, there is an appointed officer or NCO, by the battalion commander's discretion—not by the Table of Organization and Equipments (TOE) that is sent to a corps level NBC training each quarter to train his/her own units and advise the commander during such an attack. However, such training on unauthorized personnel only hinders his/her original duty performance.

- Counter SOF capabilities: In addition to the 100,000 SOF personnel for strategic missions, there are light infantry companies and scout platoons organized under North Korean infantry regiments and battalions whose main missions is to attack command posts and neutralize combat service support capabilities. A ROK infantry battalion lacks counter measure against such enemy attacks.
- Anti-armor capabilities: Currently anti-armor assets under a ROK infantry regiment is a 106 mm Recoilless Rifle platoon and a 90mm Recoilless Platoon under the Weapons Company in each battalion of the regiment. These obsolete anti-tank weapons may be effective against North Korean T-60 and T-70 series tanks in a close range, but not against T-80 and later versions. The ROK Army also maintains a Tube-launched, Optically tracked, Wire-guided missile (TOW) company that is employed throughout lower units in forms of general support, direct support and attachment. However, in addition to the fact that TOW is already an aging anti-tank weapon system, one company under divisional control does not provide flexible anti-armor capabilities as required for future warfare.
- Anti-air capabilities: A ROK Army division maintains one air defense company that is designed to provide the division with an air-defense. Lower units lack flexible anti-air capabilities, therefore are vulnerable against enemy air assets.

## (2) Capabilities against Potential and Unspecified Threats.

According to Asch and Hosek, the ROK military will need to shift itself from Threat-Based to Capabilities-Based planning<sup>39</sup> in the future. Since South Korea also foresees itself as becoming an active player in the North East Asian region, its military must comprehend the dynamic security environment in the region, and therefore, redefine its role in the nation's national security strategy. The ROK Army has to broaden its view and take long-term, national security objectives into account. This means the ROK Army must build a security framework that includes neighboring militaries such as Chinese, Japanese, and Russian armed forces as future potential threats. This is especially important because, when a force structure is built and based solely on a set of specified threats—and the assumption that if certain threats could be met other threats can be met, in this case North Korea—inflexible characteristics of the manpower force structure will hinder the Army. It will be unable to realize the fourth national security strategy, “Development of Comprehensive Security.”

A solution to such fixed threat based force planning is to give the structure enough flexibility to offset unspecified threats in the future through capabilities-based planning. A direction to accomplish this task is described in the objective and directions of the Reform Plan, as introduced in Chapter II. It is to “transform the ROK military from the quantitative pre-modern structure of personnel intensity into a qualitative technology-oriented structure” by “reforming the current military into one suitable to future warfare,” and “specializing manpower, linking with actualizing of hi-tech weapons systems.”<sup>40</sup> Such objective and directions will be visualized throughout lower units as they acquire more capabilities to flexibly offset uncertain threats that the ROK Army cannot anticipate from North Korea. The second direction suggests that flexibility from more capabilities does not necessarily imply a bigger Army, but specializing selected manpower to realize future technologies in military capabilities.

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<sup>39</sup> Beth Asch and James R. Hosek, *Looking to the Future: What Does Transformation Mean for Military Manpower and Personnel Policy?* (Occasional Paper Series RAND, 2004), 4.

<sup>40</sup> The ROK Ministry of National Defense, *The Defense Reform Plan 2020* (Seoul, The MND, 2005), 34

***b. Military Strategy***

The ROK military strategy stems from national interests. Because the eminent and constant military threat of North Korea may undermine the national interests of the ROK Government, a military strategy must support the national interests by upholding the national security objectives. As introduced in Chapter II—The ROK Army Manpower Force Structure—the ROK Army missions support the Basic Direction of the ROK Defense Policy based on National Security Objectives. The ROK Army exists to deter war, to gain victory on ground warfare, and to support the safety and interests of its people by building an elite force.

Taken from the rationale called the Army Objectives, the ROK military strategy should provide a roadmap to realize the objectives. Therefore, the strategy must consist of specific, military goals that incorporate tangible means, such as the human and physical resource elements, which help to define the strategic capability of the ROK Army. A force structure becomes relevant when the human resource element is included in the military strategy. Therefore, it is the military strategy that decides the size and shape of the human resource elements as part of the force structure in order to achieve the military objective. Combined with the physical resource elements based on the military strategy, the ROK Army manpower force structure is specified and visualized through different tables of organization and equipment for different military units throughout the chain of command.

According to the ROK-US combined defense operation plan constructed upon an invasive war scenario of North Korea, the ROK military strategy is characterized as defensive during the initial phase of war, becoming counter-offensive after conducting successful, defensive operations. Such strategic characteristic allows the ROK Army to remain as the main military component of the ROK military. This point will appear again in the *Strategic Culture in History* section.

In the common tactical mind of a tactician, a defensive war is waged at a prepared position with geographical advantages to the defender that does not necessarily have to maneuver around. Based on this thought, two points deserve attention.

- Based on Table 1, these advantages are visualized in comparative force ratios in personnel between the offender and the defender as 3 to 1. The

current Army personnel ratio, between the ROK and North Korea, is about 1:1.8, leading to a hasty conclusion that the ROK military is at a great disadvantage during counter-offensive operations. However, this rational cannot solely dictate ROK Army manpower force planning; the physical resource elements are not accounted for in this comparison. Even when counter offensive operations are conducted after the second half of the ROK defensive operations plan—where the ROK will need, comparatively at least, a triple-sized force to gain victory—the technological advantages of the ROK military should offset the quantitative disadvantages.

- The advantage of less requirement of maneuvering has become one of the reasons why the ROK Army does not necessarily have to mechanize its units while, on the other hand, giving a good reason to remain oversized. Such a defensive advantage has to be closely reviewed because defenders with more maneuverability will secure more initiative. Also, the second half of the ROK-US combined defense operations plan is counter-offensive operations where maneuverability is essential to gain operational initiative and tempo. Therefore, the ROK Army will have to acquire more independent maneuverability and operational sustainability for lower units in order to gain more flexible capabilities.

*c. Geography*

Depending on where a war is fought, an emphasis of military strategy can shift from one to another. This is due to the geographical characteristic of the battlefield which is another determinant that consequently affects military manpower force planners. The battlefield for the ROK Army, on a war scenario on the Korean Peninsula, is characterized as rugged, mountainous terrain; more than 70% of ROK territory is mountains. This means that, despite the well-developed road networks throughout the country, the ROK Army must develop its foot infantry units suited for mountainous areas (mostly the eastern front) while still training units for the flat country.

*d. Strategic Culture in History*

To capture a historical sense of strategic culture, it is meaningful to look at a history of Korea and to identify another factor in the current ROK Army manpower force structure. Historically, because of the geopolitical importance of the Korean Peninsula, Korea has been invaded by neighboring powers on numerous occasions. However, there is no historical record suggesting a Korean invasion against its neighboring countries—except for a handful of expeditionary campaigns in Japan and on Manchurian land. Such strategic culture, along with the U.S. strategic interests in the region, have historically restrained the ROK military from taking preemptive measures. This characterizes the ROK military as best suited for defensive operations. Throughout history, and even today, the Korean military does not exhibit itself as a projecting power. This historically strategic culture is imbedded in the ROK Constitution and is specified as the first national security objective: Pursuit of the Policy of Peace and Prosperity. It is inherently perceptible when a defensive posture is emphasized in the military that it is its army that is emphasized and cultivated. On the other hand, when a nation maintains a projecting military strategy, its navy and air force comparatively gain more weight due to the innate nature of the service branches. Therefore, historically, the Korean military has mainly identified itself as a ground battle force. This is why more than 80 percent of the ROK military is Army, and why most defense ministers and chairmen of ROK Joint Chief of Staff have Army backgrounds. This fact is also one of the main reasons 97.7 percent of the downsizing in the Defense Reform will occur in the Army, compared to reductions of only 0.3 percent in the ROK Navy and no change in the ROK Air Force. This Army-centered, strategic culture will not change much in the near future.

*e. Technological Capabilities*

Technology in the military is another factor in the ROK Army manpower force structure. Technology, by nature, can downsize the traditional ROK Army by introducing new command and control capabilities and hi-tech weapons systems. This is based on the reasoning that qualitative, technological advantages will offset the quantitative disadvantages, and is one of the main reasons behind the “qualitative

slimming and the qualitative specialization.”<sup>41</sup> South Korea has put much effort into developing its military into a technology-oriented armed force. Throughout the Defense Reform, the ROK MND’s intention to make qualitative changes is laid out accordingly. Stated in the ROK Defense White Paper 2004, the ROK military intends to consolidate the foundation of its research and development (R&D) and defense industry. South Korea currently ranks about the tenth in the world in terms of the technological ability to develop advanced weaponry,<sup>42</sup> yielding a persuasive reason for military R&D. With the current manpower force structure and upcoming technological renovations at hand, a planner of the ROK Army manpower force structure should anticipate force requirements that will be required to properly employ new technologies and science in the Army.

*f. Economy: Defense Budget*

Like any other military organization under a democratic government, the ROK Army is sustained by the defense budgets appropriated by the congress. Potential impacts of defense budgets on manpower force structure may vary, but undoubtedly, if too little is budgeted for a significant period of time, the scales of a military organization will be influenced. Generally, two major programs are included in ROK military defense budgets: Force Investments Programs (FIP) and Ordinary Operational Costs (OOC). FIP aims “to secure capabilities to tackle existing threats first and subsequently to brace for unspecified future threats, strengthening domestic R&D capabilities at the same time.”<sup>43</sup> Also, ordinary operational expenses focus primarily on improving the soldier’s quality of life, digitizing national defense systems, consolidating education and training, and maintaining existing combat forces. Table 6<sup>44</sup> illustrates the amount and functional allocation of the general accounts of the FY 2005 defense budget. The allocation for the FIP totaled 7.0656 trillion won, up 12.3 percent from FY 2004. The FIP allotments reflect the annual financial requirements to secure main combat capabilities, including

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<sup>41</sup> Young Jin, Cho, Kwan Ho Cho, Kil Ho Chung, Ju Sunge Chung, Won Bae Lee, and Ahn Sik Kim. *Defense Manpower Development Plan for an Elite Force* (Seoul: Korea Institute for Defense Analyses, 2005), 35.

<sup>42</sup> The Republic of Korea Ministry of National Defense, *Defense White Paper* (Seoul: 2004), 100.

<sup>43</sup> *Ibid*, 100

<sup>44</sup> *Ibid.*, 214.

currently operational modern equipment and future R&D investments for the next generation of weaponry. Ordinary operating costs rose to 13.7570 trillion won, up 8.8 percent from FY 2004.

Table 6. The ROK Nominal Defense Budgets, FY 2004 – FY 2005

Classification	FY 2004 (%)	FY 2005 (%)	Increase/Decrease (%)
Total Defense Expenditure	18.9412 (100.0)	20.8226 (100.0)	1.8814 (9.9)
FIP Costs	6.2930 (33.2)	7.0656 (33.9)	0.7726 (12.3)
Ordinary Operating Costs	12.6482 (66.8)	13.7570 (66.1)	0.6067 (7.6)

As observed in Table 6, the nominal amount of the ROK defense expenditures has grown. However, Figure 5<sup>45</sup> shows that the real ratio of the defense budgets have been declining due to such factors as market prices, the high cost of advanced weapons systems, and increased salaries in line with the growing national income. As a result, the ROK military has not had the flexibility to foster a cooperative, self-reliant national defense. The financial requirements in future manpower force structure, as well as technological aspects of the ROK defense, will be more demanding. According to the Defense Reform, the annual increase of the defense budgets should be 11 percent until FY 2015,<sup>46</sup> which means that defense expenditures must be allocated at a stable rate of at least 3.0 percent of GDP for the mid- to long-term perspectives.<sup>47</sup>

<sup>45</sup>The Republic of Korea Ministry of National Defense, 215.

<sup>46</sup> The ROK Ministry of National Defense, The Defense Reform Plan 2020 (Seoul, The MND, 2005), 58.

<sup>47</sup> The Republic of Korea Ministry of National Defense, 217.

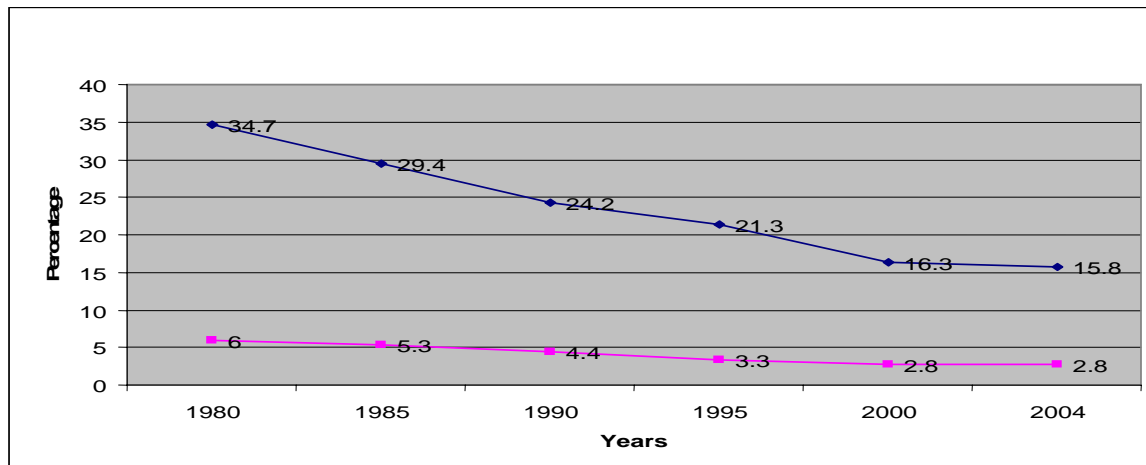


Figure 5. Defense in Government Budgets and GDP

**g. Social Factors**

The ROK Army manpower force structure planners must not overlook social factors. This is crucial because the social support for the ROK military is based on the compulsory conscription. This is the primary reason that the fourth key points of the ROK National Defense is to establish “the Image of a Trustworthy Military.”<sup>48</sup> The draft systems of the ROK government are directly related to its military organization and force structure. The human resource elements are provided mainly by those who must serve in the military regardless of their desire to do so; in many cases they serve against their will. For this reason, the draft system inherently conflicts with the utilities and interferes with the professionalism of the ROK military. During the year of 2005 alone, the ROK military built a negative image from several incidents: the ongoing allegation of military exemptions for a significant number of sons of public figures; the scandal of the ROK Army general promotion board; the shooting rampage by a corporal at a general post in the DMZ; the disappearance of an ROK Navy special operation vessel; and the accidental crash of ROK Air Force jet fighters. As previously mentioned, training enlisted personnel from the draft to be suited for a technology-oriented military, is not cost-effective. Since the ROK Government foresees that the reality of an all-voluntary military is not probable until the year 2020, the ROK military must attempt to get the full support of society by concentrating more efforts on building trust. This may be possible

<sup>48</sup> The Republic of Korea Ministry of National Defense, 217.

by developing a professional officer and non-commissioned officer corps, while reviewing the current size of the enlisted personnel. This must be the basic concept of the “quantitative slimming and qualitative specialization” of the ROK military.

## **B. CHAPTER SUMMARY**

This chapter examined existing factors that influence future manpower force planning of the ROK Army, based on capabilities-based planning. The main findings in the chapter is a high correlation between a military’s flexibility and capabilities. Additionally, that there are several factors for consideration when manpower planners review future ROK Army manpower force structures. The factors are summarized as:

- **Military Threats:** Eminent threats from North Korea are ongoing and can be categorized into five major threats of North Korea, and the necessary capability requirement against such threats, identified by the ROK MND. Besides the eminent military threat from North Korea, the ROK Army also must include potential threats from neighboring militaries. Such a challenge must be accomplished through capabilities-based planning, which will allow the ROK Army enough flexibility to counteract uncertain threats in the future. The implementation of these reforms has to be accomplished by training selected manpower to realize the future technologies in military capabilities.
- **Military Strategy:** A force structure is a realization of the tangible human resource element in the ROK military strategy. Military strategy decides the size of force and shapes the human resource elements into a force structure that helps achieve the military objective. The ROK military has maintained its defensive strategy and such strategy is unlikely to change in future. This factor will maintain the ROK Army as the main military component in the ROK military. However, advantages from such defensive postures must not interfere with giving more independent maneuverability and operational sustainability for lower units in order to gain capabilities designed for more flexibility.

- **Geography and Strategic Culture:** Due to Korean geography and the strategic culture of Korean history, the ROK military does not exhibit itself as a projecting power. This factor, is already imbedded in the ROK Constitution and specified as the first national security objective. The ROK Army will remain as the main service branch, unless strategic culture changes occur in the future. Therefore, it is important to reform the current ROK Army into one that will maintain the security initiative on the Korean Peninsula.
- **Technologies:** “Qualitative slimming and t qualitative specialization”<sup>49</sup> suggests that the direction of the ROK military reform is to trim its current manpower size while specializing the remaining manpower to properly operate newly adopted technologies such as Command & Control, Communications, Computers and Intelligence (**C4I**) Systems, and new weapons systems. The ROK Army manpower force structure should be planned in accordance with such military technologies.
- **Defense Budget:** The Defense Reform will result in more demanding financial requirements to foster the future manpower force structure and technological reforms of the ROK defense. However, the financial situation of the current ROK military suggests that the real ratio of the defense budgets must maintain at least 3.0 percent of GDP if it is to provide the ROK military enough flexibility to foster a cooperative, self-reliant national defense.
- **Social Factors:** The ROK military must attempt to get the full support of society, concentrating more efforts on building trust. This is accomplished by professionalizing the officer and non-commissioned officer corps, while reviewing the current size of the enlisted personnel.

These factors identified above, although not inclusive, are ones that influence the ROK Army manpower force structure planning. With such factors, a capabilities based

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<sup>49</sup> Young Jin, Cho, Kwan Ho Cho, Kil Ho Chung, Ju Sunge Chung, Won Bae Lee, and Ahn Sik Kim. Defense Manpower Development Plan for an Elite Force (Seoul: Korea Institute for Defense Analyses, 2005), 35.

planning should be conducted by the top leaders of the ROK military to determine adequate capabilities of the ROK Army as a whole entity, and then this method will be followed by numerous Bottom-Up approaches by manpower planners for each unit within the ROK Army organization. When all the 'Bottom-Up' approaches are aggregately integrated into one manpower force structure, they will be reviewed and practiced for the Reform in the ROK Army manpower force structure to be finalized. In the next chapter, the research will build a model of an ROK Army infantry battalion with required capabilities for the future battlefield. This will be done in order to suggest a feasible mix of manpower ratios among officers, NCOs and enlisted personnel to be a part of the entire 40:60 ratios between officers (including NCOs) and enlisted personnel.

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## **IV. BOTTOM-UP APPROACH: ROK ARMY INFANTRY BATTALION**

### **A. THE BASIS FOR CHANGE**

Using the previous chapters as a fundamental base, this chapter will introduce manpower force structures of four similar but different ground forces' infantry battalions in forms of Modified Table of Organizations and Equipments (MTOE); the ROK Army, the United States Army (USA), United States Marine Corps (USMC) and Taiwanese Army. Such comparative analyses will show the distinct differences in capabilities generated from linking each manpower requirement with its respective equipment among the four infantry units and to identify capabilities different from that in the current ROK infantry battalions.

The fundamental combat mission of the infantry battalion, regardless of the type of battalion, is to close off the enemy by means of fire and maneuver to destroy or capture him, or to repel his assaults by fire, close combat, and counterattack. To accomplish specific missions and conduct sustained operations, the battalion is normally augmented by additional combat, CS, and CSS assets.<sup>50</sup>

— Mission, The Infantry Battalion,  
US Army Field Manual, FM 7-20

Chapter II reviewed the current Republic of Korea (ROK) Army manpower force structure and identified limitations and challenges in realizing the objective and directions stated in the Defense Reform Plan 2020 (the Reform Plan). Additionally, Chapter III identified contributing factors that influenced the Top-Down approach to ROK Army manpower force structure planning followed by a Bottom-Up approach for each organic unit structured under the ROK Army. The results is a determination ROK Army capabilities that realize objectives and missions that contribute to the execution of ROK National Security Objectives. The research identifies missing ROK infantry battalion capabilities and combines them with required capabilities identified in Chapter III. The results will be a ROK infantry battalion model with new manpower ratios among officers, non-commissioned officers (NCOs) and enlisted personnel. This is merely one

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<sup>50</sup> Combat Support (CS), Combat Service Support (CSS)

Bottom-Up approach that compares like units with similar but different functions and capabilities. However, it is significantly meaningful to compare a current ROK Army infantry unit to other nations with advanced ground armed forces.

Table 7 clarifies the four militaries' NCOs and enlisted personnel ranking systems. This will serve as a guide when same rank titles with different pay grades are used.

Table 7. Army NCO and Enlisted Rank Systems Among Militaries

Rank/Grade	The ROK Army	The U.S. Army	USMC	Taiwanese Army
<b>E-9</b>	-	<b>Sergeant Major</b>	<b>Sergeant Major/ Master Gunnery Sergeant (MGYSGT)</b>	-
<b>E-8</b>	<b>Sergeant Major (SGTMAJ)</b>	<b>Master Sergeant/First Sergeant (1stSGT)</b>	<b>First Sergeant/Master Sergeant</b>	-
<b>E-7</b>	<b>Master Sergeant (MSGT)</b>	<b>Sergeant First Class</b>	<b>Gunnery Sergeant (GYSGT)</b>	<b>Sergeant Major</b>
<b>E-6</b>	<b>Sergeant First Class</b>	<b>Staff Sergeant</b>	<b>Staff Sergeant</b>	<b>Master Sergeant</b>
<b>E-5</b>	<b>Staff Sergeant (SSGT)</b>	<b>Sergeant</b>	<b>Sergeant</b>	<b>Sergeant First Class</b>
<b>E-4</b>	<b>Sergeant (SGT)</b>	<b>Specialist (SPC)/Corporal</b>	<b>Corporal</b>	<b>Staff Sergeant</b>
<b>E-3</b>	<b>Corporal (CPL)</b>	<b>Private First Class</b>	<b>Lance Corporal (LCPL)</b>	<b>Sergeant</b>
<b>E-2</b>	<b>Private First Class (PFC)</b>	<b>Private</b>	<b>Private First Class</b>	<b>Corporal</b>
<b>E-1</b>	<b>Private (PVT)</b>	<b>Private</b>	<b>Private</b>	<b>Private</b>

## B. CURRENT ROK INFANTRY BATTALION

There are generally two kinds of infantry battalions in the ROK Army, mechanized and non-mechanized known as “foot infantry.” The infantry battalion shown in Figure 6 is a non-mechanized infantry battalion that mostly exists under the First Republic of Korea Army (FROKA) along the line of the Eastern Front of the Korean Peninsula<sup>51</sup>.

<sup>51</sup> FROKA's AOR is the eastern half of the demarcation line of the Korean Peninsula, comprised with mostly rugged mountains where mechanized units will have limited maneuverability. Currently, some of division level units under FROKA have been mechanized due to well developed road networks throughout the area.

This particular battalion is structured under an infantry regiment. An important consideration that two of three other battalions of international ground forces (the US Army and Taiwanese Army) are structured under infantry brigades having more independent operational capabilities. The senior level unit's, operational capabilities can vary significantly. Future ROK infantry battalions will require more independent operational capabilities such as enhanced firepower, maneuverability and combat service support (CSS). In other words, military flexibility and its capabilities are closely related, and therefore, a capabilities-based planning 'Top-Down' approach to force structure produces flexibility by allowing lower level tactical units independent operational capabilities through 'Bottom-Up' approaches such as an infantry battalion.

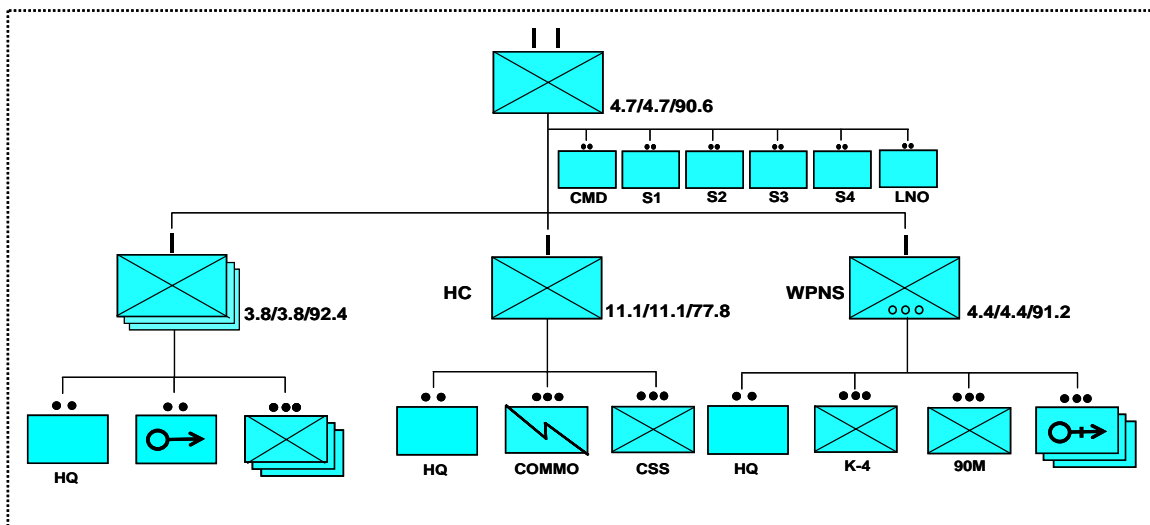


Figure 6. ROK Infantry Battalion

Due to the nature of force structure, specific numbers of personnel and equipment in any ROK MTOE are classified, meaning exact numbers cannot be stated in the research. Instead, ratios of officers, NCOs and enlisted personnel in each respected subordinate unit under the battalion will be shown. These ratios reveal elements that cause the ROK infantry battalion to be less capable, and hence, less flexible. As previously noted, there are also required capabilities identified from the factors analysis of the ROK Army manpower force structure. Analyzed facts in perspective of lacking capabilities from this organization are listed:

- Low ratios of officers and NCOs: The manpower ratios of 4.2:6.8:89.7 among officers, NCOs and enlisted personnel reaffirm the finding in Chapter II that the ROK Army heavily depends on the enlisted personnel whose turnover ratio is very high. Frequent and repetitive education / training for new soldiers into units nor excessive personnel management requirement for officers correlate with combat readiness of the unit; therefore, it is not cost or combat effective.
- NCO Workload: Despite the ROK Army's emphasis on the role of NCOs, the actual ratio of NCOs is significantly small, resulting in increased workloads on the current ROK NCO Corps. This negatively influences their performance and morale.
- CSS: CSS capabilities in the military can generally be categorized into logistics support, personnel service support, and health services support. Inherently, a typical infantry battalion is known to have limited combat sustainability. However, CSS capability of a ROK infantry battalion, by far, is relatively most limited, and CSS capabilities of other foreign battalions in later sections will prove such claim. The battalion has limited medical support and chaplain service capabilities. These capabilities are mainly provided from the regiment level.<sup>52</sup>
- Combat Post (CP) Vulnerability: The battalion Headquarters has limited force protection capabilities, making it vulnerable against enemy attacks to the battalion Combat Post. (CP)<sup>53</sup>
- Information Collection: The battalion is the smallest tactical unit that is closest to its enemy during combat, but lacks information collection capabilities for higher commands.

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<sup>52</sup> A ROK infantry regiment maintains one Chaplain Section and a Medical Company. Not to mention limitations of the Chaplain Section during war, the Medical Company does not have required supporting manpower and equipment to cover all the units under the Regiment.

<sup>53</sup> As introduced in previous chapter, a North Korean infantry regiment and its subordinate battalions maintain one Light Infantry Company and one Scout Platoon respectively. Their main mission during war is to infiltrate and attack the enemy Combat Posts (CP). Such enemy assets will pose a great threat to the ROK counterparts.

- **Anti-armor Capabilities:** Currently, the weapons company under the battalion consists of one K-4, 40 mm automatic grenade launcher platoon, three 81 mm mortar platoons and one M-67 90 mm Recoilless Rifle platoon. This limits the battalion's anti-armor capability. The 90 mm Recoilless Rifles (M-67) equipped in the battalion are obsolete anti-tank weapons, developed by the U.S. Military during the Korean War and extensively used by the U.S. armed forces in the Vietnam War. This weapon may be effective when employed against tanks developed until the 1970s, but not against any of the modernized or upgraded versions.<sup>54</sup> This is an essential capability for the battalion's operational flexibility, because friendly armor or anti-tank assets from upper units cannot guarantee their support.
- **Fire Support Coordination:** The battalion is authorized one liaison officer (LNO) whose mission is to coordinate fire support from friendly air assets. In artillery support, one field artillery officer as a forward observer (FO) is typically attached—therefore, not shown in the MTOE—to the battalion from its combat support field artillery battalion. As the modern battlefield expands due to longer range ammunitions, digitized command and control systems, and more mobility of units, each organic unit of the battalion will operate further away and require fire support in different targets, sometimes simultaneously. Therefore, the current LNO and FO must be augmented.

When these elements and required capabilities are incorporated into one set of capabilities and adequately determined for the battalion, a flexible future ROK infantry battalion will exist with:

- More NCO in the battalion
- Enhanced anti armor capabilities

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<sup>54</sup> The main battle tank of North Korean Army is domestically upgraded version of Russian T-62A, known as the Ch'onma-ho. Firstly observed in 1992, these tanks are now upgraded to mount 125 mm guns and modernized fire control systems, not to mention its armor protection. With outdated anti-tank weapon such as 90 mm Recoilless Rifle, a ROK infantry battalion will only have anti-armor capabilities against North Korean Type 63 or PT-85 amphibious tanks but will have to solely depend upon friendly armor units or anti armor units which may not be there for infantry units all the time.

- Enhanced CSS capabilities
- Enhanced fire support coordination
- Intelligence collection capabilities
- Force Protection: C.P. Security

### **C. UNITED STATES ARMY INFANTRY BATTALION**

According to the Army Strategic Planning Guidance, one of the U.S. Army force planning objectives is to increase the Combatant Commander's ability to rapidly defeat any adversary or control any situation across the full range of military operations. This is accomplished by, "developing more modular, strategically responsive organizations, cultivating, and institutionalizing a Joint and Expeditionary Mindset throughout the force."<sup>55</sup> Colonel R. Smith from the Army's Future Center within Training and Doctrine Command (TRADOC) defines the concept of modularity as to provide combatant commanders more versatile land power, and this can be achieved by taking the old type of infantry division apart in a "task-organized" and "self-contained" way.<sup>56</sup> In other words, a modular military organization possesses the flexibility to operate in any threat environment through rapid deployments, greater firepower and increased internal sustainability. This is in line with capabilities-based objective and directions of the ROK Defense Reform Plan 2020 introduced in Chapter II.

Many distinctive factors separate an ROK battalion and a USA infantry battalion as shown in Figures 6 and 7.

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<sup>55</sup> Department of the Army. The Army Plan FY 2006 – 2023. Washington D.C.: Department of the Army, 2006, 7

<sup>56</sup> Colonel Smith, Rickey, The Army Modular Force, The United States Army, 23 Feb. 2005 . Presentation on-line. Available from [http://www.blueskybroadcast.com/Client/Army\\_Stratcom/](http://www.blueskybroadcast.com/Client/Army_Stratcom/) (Last accessed 02/26/06).

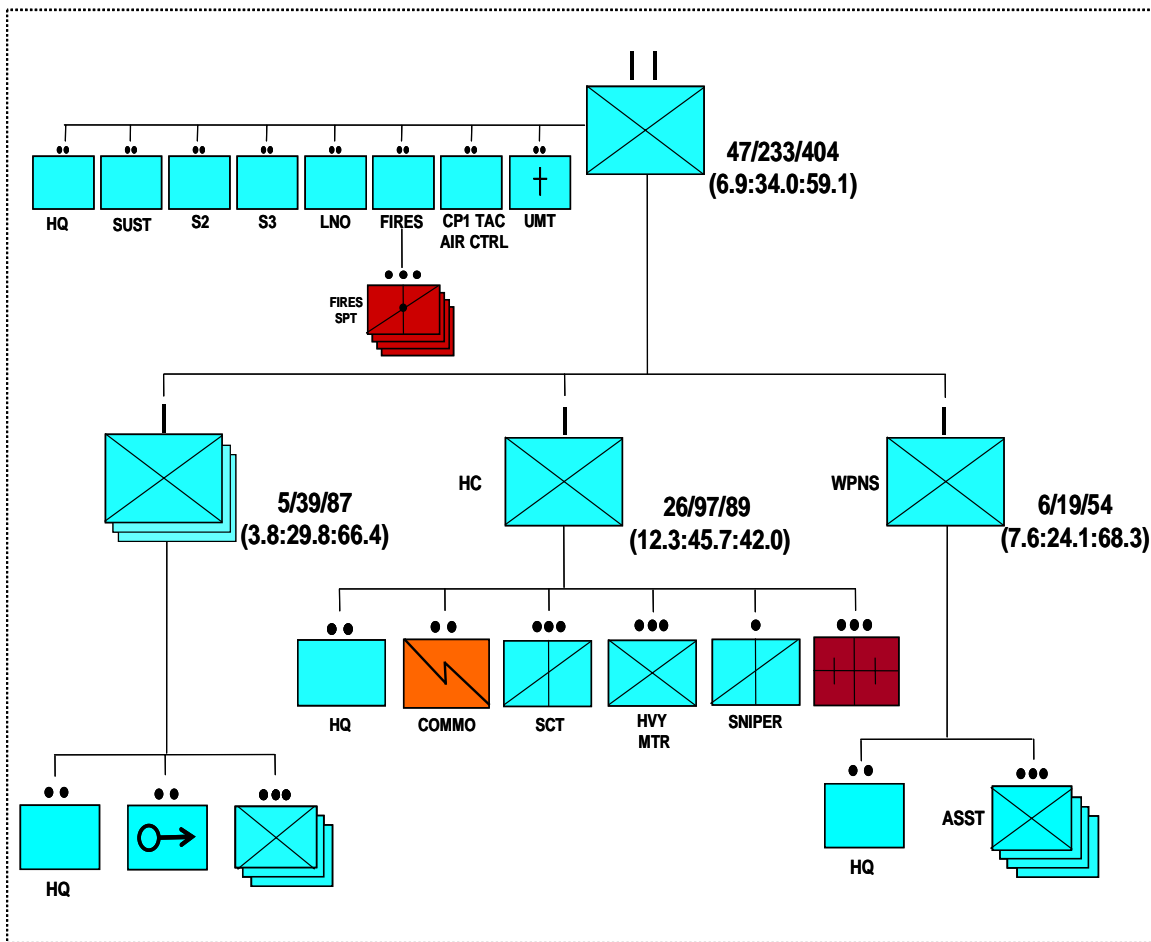


Figure 7. US Army Infantry Battalion

One of the most notable is that the US Army ratios of 6.9:34.0:59.1 officers, NCOs and enlisted<sup>57</sup> account for 684 manpower requirements. An examination of MTOE shows that section and squad leader leadership billets are filled with NCOs who are E-5 or E-6. This explains why the NCO ratio in a ROK Army infantry battalion is comparatively low to squad leaders billets filled by conscripted E-4s. Additionally, many essential billets requiring technical expertise within the battalion's Headquarters Company are filled with experienced NCOs. Such specialized expertise and trained leadership skills. In the US Army battalion, NCOs provide effective troop training. The

<sup>57</sup> The U.S. military often does not distinguish NCOs from enlisted personnel. In order to have conformity to the ROK military rank systems, personnel whose pay grades are E-5 and above are considered as NCOs while E-4 and below are enlisted personnel.

NCO battalion workload conducts training, personnel management and other administrative functions in leadership billets that are allocated throughout the respective chain of command.

CSS capabilities of the battalion such as logistics support (supply, transportation, maintenance and field services), personnel service support (personnel and administration, chaplain operations and Enemy prisoner of war (EPW) operations), and health services (medical treatment and evacuation of casualties, preventive medicine and medical supply operations) are mostly self-contained. The results are fewer battalion requirements for crucial combat service support elements such as medical support and chaplain operations, therefore providing greater flexibility for independent operations.

The US Army MTOE shown in Figure 8 shows the number of authorized transportation units (56 vehicles within the battalion HQs Company alone) in the battalion increasing flexibility through maneuverability. The addition of more equipment inevitably requires more trained personnel to operate. The entire ROK battalion is authorized 25 percent less vehicles than Headquarters company of its U.S. Army counterpart.

Critical CSS capabilities are shown by the U.S. Army infantry battalion vehicle structure shown in Figure 8. The US Army understands that combat power maximization is directly linked to sustainment, because it maintains battles by allowing forces to concentrate their coordinated combat efforts at the decisive time and place.<sup>58</sup> Historically, the ROK military has not put such emphasis on sustainability of its forces. One explanation of this inflexibility is the heavy reliance of the U.S. military. As introduced in Chapter II, one of the ROK Ministry of National Defense's (MND) key defense points is "Pursuit of Cooperative Self-Reliant Defense." The cooperative self-reliant defense is a paradox in a sense that "cooperative" and "self-reliant" do not share any similarity. This simply implies that the ROK military has to depend on allies for its national defense, which can only be construed as less capability, therefore, less flexibility. This inflexibility and reliance must be overcome in the future.

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<sup>58</sup> Federation of American Scientists, Combat Service Support, 1998. Available from <http://www.fas.org/man/daod-101/sys/land/css.htm> (Last accessed 02/22/06).

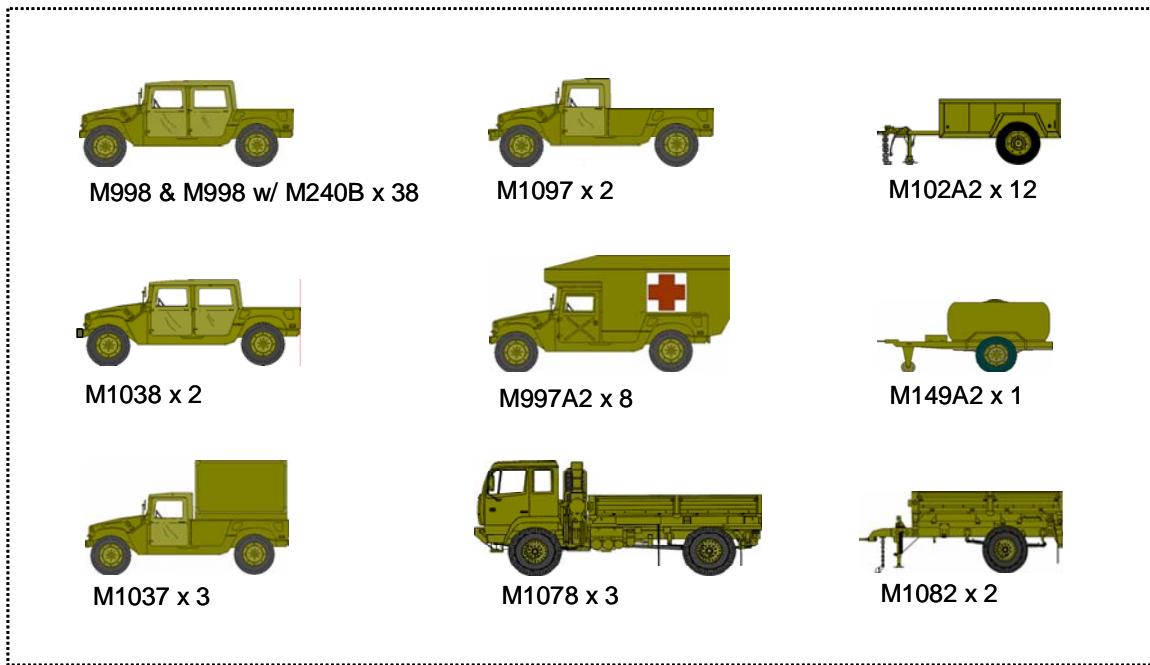


Figure 8. US Army Battalion Transportation Capability

Another example of self-contained CSS capability is illustrated in Figure 9. Medical platoons are organic to the battalion to provide critically wounded battalion members emergency medical treatment. The requirements are one field surgeon (O-3) and one physicians assistant (O-3); providing combat medical service by 15 trauma specialists (E04); and medical evacuation by eight ambulances.

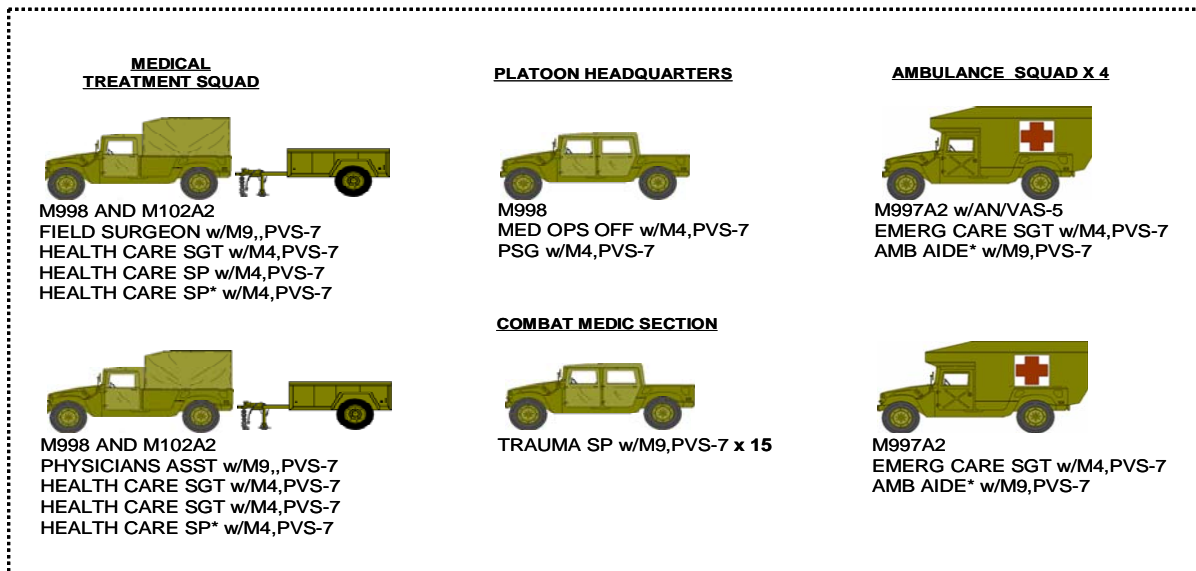


Figure 9. U.S. Army Infantry Battalion Organic Medical Platoon

The U.S. Army infantry organic unit structures of battalion's scout platoon and sniper squad is shown in Figure 10. Missions of the Scout platoon (led by one O-2 platoon leader and three E-6 squad leaders) are to provide security and reconnaissance for the battalion. Advanced warning of the enemy locations and strengths is conducted through reconnaissance and security operations, while providing security for the battalion and its Combat Post (C.P.).<sup>59</sup> The primary mission of the sniper squad (led by E-6 squad leader) is to support combat operations by delivering precise long-range fire on selected targets in order to provide the battalion an operational initiative.<sup>60</sup> The secondary mission of the sniper is collecting and reporting battlefield information. These organic units provide flexibility through force protection and information collection capabilities.

<sup>59</sup> Federation of American Scientists, Combat Service Support, 1998. Available from <http://www.fas.org/irp/doddir/army/iobc/cae2lp.htm> (Last accessed 03/02/06).

<sup>60</sup> The sniper squad provides the battalion an initiative by creating casualties among enemy troops, slowing enemy movement, frightening enemy soldiers, lowering morale, and adding confusion to their operations.

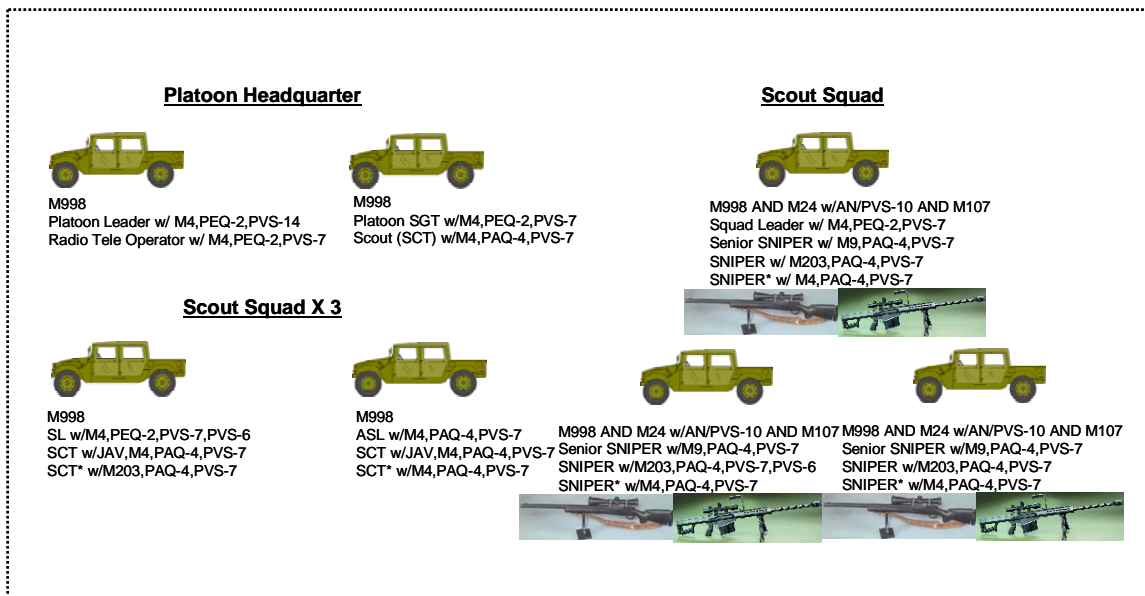


Figure 10. US Army Infantry Battalion Organic Scout Platoon and Sniper Squad

The U.S. infantry battalion delivers its anti-armor capabilities through 18 Command Launch Units that fire “Javelin” missiles. This illustrates the U.S. military’s effort to integrate hi-tech weapons systems that are operated by skilled personnel. In each weapons squad (led by E-6 squad leaders) has two sets of advanced anti-tank weapon systems and are operated by squad leaders and three E-4 anti-armor specialists.<sup>61</sup> These weapons systems provide the U.S. Army infantry battalion a self-contained anti-armor capability.

The U.S. Infantry Battalion fire support coordination capability is comprised of four platoons, each with a fire support officer (O-2), a fire support sergeant (E-6), a forward observer (E-5), a fire support specialist (E-4) and a radio operator (E-3). These units will be detached to organic companies or platoons to effectively coordinate fire support from higher command fire elements. In addition, a joint service Air Force officer (O-3) as the Battalion Tactical Air Controller is responsible for coordinating a friendly fire support such as close air support (CAS).

<sup>61</sup> Javelin is the first anti-armor missile with “fire and forget” capability, and its minimum back-blast allows the missile to be fired in a concealed area.

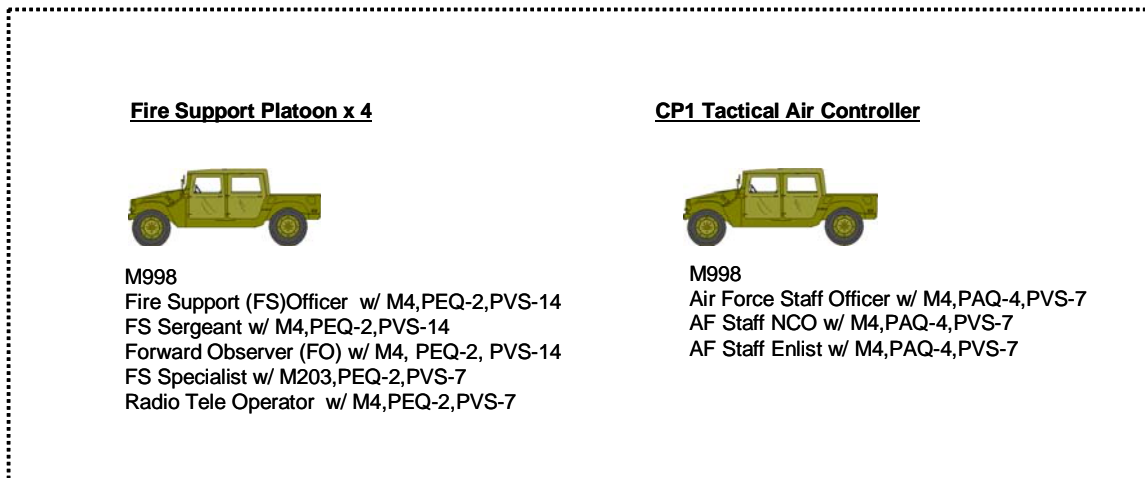


Figure 11. US Army Infantry Battalion Fire Coordination Capability

A review of the US Army's infantry battalion MTOE shows what capabilities a ROK infantry battalion lacks. The U.S. Army infantry battalion maintains operational flexibility against various adversaries with less support from the higher commands.

#### **D. UNITED STATES MARINE CORPS INFANTRY BATTALION**

An organizational diagram of a USMC infantry battalion is shown in Figure 12. The ratios of officers, NCOs and enlisted personnel are 4.8:40.4:54.7, similar to the US Army infantry battalion NCO ratio (40.4%) and significantly higher than the ROK and the U.S. Army counterparts (4.7% and 34.0% respectively). A review of the USMC infantry battalion MTOE defines its NCO differently, in that the ROK and the U.S. Army defines their NCOs as those enlisted personnel whose pay grades are E-5 and above, USMC include E-4 within its NCO. USMC generally consider E-4s and E-5s as NCOs and E-6s and above as Staff NCOs. This shifts down the average age of NCO group of USMC based on strategic characteristic of Marine Corps, which will be discussed later.

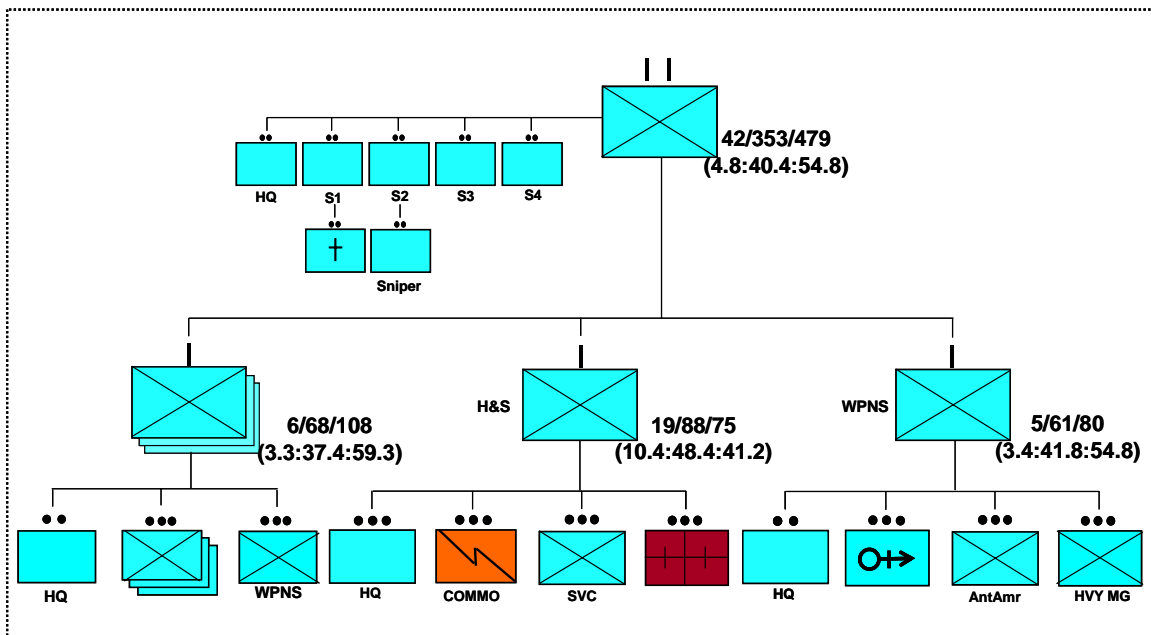


Figure 12. US Marine Corps Infantry Battalion

Several interesting manpower factors are revealed when reviewing an USMC infantry battalion MTOE. First notable aspect is that there is the fundamental number three throughout the organization. Relevant factors:

- There are three 4-men fire teams, making up one rifle squad 13 personnel with an E-4 as the squad leader. Unlike the U.S. Army, there is no weapons squad in the platoon.
- There are three infantry platoons under three rifle companies to the battalion. Weapons Company is seen as combat supporting arms while the Headquarters and Service (H&S) company has CCS roles for the battalion.

This number three appears over the evolution of USMC. In May 1944, Headquarters, USMC standardized the 13-Marine rifle squad under Table of Organization known as F-1. The basic 13 Marine rifle squad has remained the standard organization into the twenty-first century because of its flexibility and effectiveness.<sup>62</sup> Compared to the ROK and U.S. Army rifle squads consisting of two fire-teams, a USMC

<sup>62</sup> WW2 Gyrene, The Marine Rifle Squad, 2004. Available from [http://www.ww2gyrene.org/rifle\\_squad.htm](http://www.ww2gyrene.org/rifle_squad.htm) (Last accessed 02/23/06).

rifle squad is composed of three fire-teams of four men, each led by a Corporal (E-3). Controlling three is also consistent with the US Army rifle squad where there are two 4-man fire-teams with one squad leader, making up a 9-man squad. However, the ROK Army rifle squad consists of two 5-man fire teams. It is easier to control three rather than four men in the fog of combat.

The second point worth mentioning is the total battalion manpower numbers. The USMC infantry battalion is bulkier than the three other battalions (fewer than 600 for the ROK Army and 684 for the U.S.) Interestingly, the main reason behind the total number is related to these expeditionary missions. USMC forces are required to deploy in a very short period of time to secure the beachhead. A USMC battalion operates in a larger area of responsibility (AOR) than follow on forces that requires more personnel to cover the AOR. The first fight in battle means greater unit casualties. Since a Marine unit does not have the luxury of ample support, they have to fight with what they bring to battle. This explains why a USMC infantry battalion is bulkier than an Army infantry battalion.

The third point is the USMC battalion NCO structure tends to be more bottom-heavy, whereas the US Army counterpart is more top-heavy. This means that a USMC battalion depends on younger and junior E-5 and E-4s NCOs while the US Army battalion focuses on the contrary. Table 8 shows an Army battalion percentage of E-6 and above the Army battalion is 14.59 percent, whereas the same Marine NCO group is about 50 percent less (7.72 percent). This pattern becomes apparent as most of the Army squad leader billets are filled by E-6s and USMC's are filled by E-4s. Marine NCOs who are E-6s and above are Staff NCOs who mostly work in the battalion headquarters level while E-5s and below mostly remain in the company level. Structural differences lie in the expeditionary nature of the USMC. These inherent expeditionary missions require more E-4s and below in combat elements out of its tactical necessity, which speed requires younger E-4s and below who are generally more physically fit than E-5s and above.

A manpower review of the USMC infantry battalion MTOE shows ratios designed to support the inherent capabilities required for its unique strategic expeditionary missions.

A comparison of a USMC infantry battalion and its US Army counterpart shows the organic Service (SVC) Platoon and Medical Platoon CSS capabilities to the battalion. The comparative analysis also shows a battalion surgeon with eight battalion corpsmen, three company corpsmen and thirty platoon corpsmen for the medical services. In battalion Headquarter & Service (H&S) Company, there are forty vehicles authorized in H&S Company including utility heavy trucks (2.5 tons), ambulances, and High Mobility Multipurpose wheeled Vehicles (HMMWV's).

A USMC infantry battalion has limited force protection capabilities such as scout platoon organic to a U.S. Army infantry battalion. However, one section sized sniper platoon provides combat operations support and information collecting capabilities. In addition, it has limited fire support coordination capabilities such as fire support platoons or tactical air controller observed in the Army MTOE. Nevertheless, the battalion is supported with direct and indirect firepower from an 81 mm Mortar Platoon, an Anti-tank Platoon and a Heavy Machinegun Platoon under Weapons Company organic to the battalion.

Table 8. US Army And US Marine Corps Infantry Battalion NCO Distributions

Grades	U.S. Army							
	HQ		Rifle CO		WPNS CO		Total	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
E-9	2	1.08		0.00		0.00	2	0.31
E-8	1	0.54	3	0.79	1	1.37	5	0.78
E-7	10	5.38	9	2.38	4	5.48	23	3.61
E-6	17	9.14	42	11.11	4	5.48	63	9.89
E-5	46	24.73	63	16.67	10	13.70	119	18.68
E-4	57	30.65	153	40.48	33	45.21	243	38.15
E-3	53	28.49	108	28.57	21	28.77	182	28.57
E-2	0	0.00	0	0.00	0	0.00	0	0.00
E-1	0	0.00	0	0.00	0	0.00	0	0.00
Total	186	100	378	100	73	100	637	100.00
Grades	USMC							
	H&S		Rifle CO		WPNS CO		Total	
	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
E-9	2	1.23		0.00		0.00	2	0.42
E-8	2	1.23	1	0.57	2	1.42	5	1.04
E-7	4	2.45	2	1.14	3	2.13	9	1.88
E-6	12	7.36	5	2.84	4	2.84	21	4.38
E-5	27	16.56	16	9.09	19	13.48	62	12.92
E-4	41	25.15	40	22.73	33	23.40	114	23.75
E-3	42	25.77	66	37.50	41	29.08	149	31.04
E-2	33	20.25	46	26.14	39	27.66	118	24.58
E-1	0	0.00	0	0.00	0	0.00	0	0.00
Total	163	100	176	100	141	100	480	100.00

In summary, the USMC infantry battalion has been designed to fit the unique characteristic of expeditionary missions. Therefore, it has limited force protection, information gathering, and fire support coordination capabilities. Similarly, the ROK infantry battalion is organic to a regiment whereas the US Army infantry battalion falls under a brigade. The deficient capabilities may be provided by higher commands, but at the trade-off of operational flexibility. A comparison of the two infantry battalions shows that the ROK Army infantry battalion should benchmark the US Army because the future ROK Army will require more flexibility than expeditionary capability. Additionally, current ROK Army infantry battalion manpower requirements are too small to

benchmark from the USMC counterpart at 874 personnel. However, the high USMC infantry battalion NCO ratio must be positively reviewed by ROK Army manpower planners.

## **E. TAIWANESE ARMY INFANTRY BATTALION**

### **1. Background**

There are several beneficial reasons to examine the Taiwanese Army's infantry battalion organization:

- ROK military shares a similarity with Taiwanese military in that both currently face an eminent threat. Taiwan has been reforming its military through downsizing and transform to technology-based armed forces in view of similar threats.
- Both countries base manpower acquisition on conscription laws.
- Both countries are dependent on the U.S. military.

As with other defense reforms, Taiwan's Defense Reforms began by defining and articulating the national security strategy and a setting of corresponding defense policies as a central theme. According to Michael Swaine and James Mulvenon, Taiwan's strategic objectives are; first, deter China from using force against the island, second, seek increased support from the United States and third, reassure the Taiwan public of the government's efforts to ensure the island's security.<sup>63</sup> However, in the 1990s, there were significant changes in Taiwanese military strategy, shifting from emphasizing offensive and defensive operations to focusing only on. This was based on the government's official and permanent abandonment of intentions to retake the mainland. President Chen Shui-bian and his Democratic Progressive Party (DPP) led this offensive-based defensive strategy. The Taiwan Ministry of National Defense (Taiwan MND) places strong emphasis on paralyzing the enemy's war-fighting capability before it reaches the island. In order to achieve such an objective, the Taiwanese military would have to further develop its offensive capability. An offensive capability would provide Taiwan the

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<sup>63</sup> Michael D. Swaine and James C. Mulvenon, *Taiwan's Foreign and Defense Policies: Features and Determinants* (Santa Monica, CA: RAND, 2001).

initiative to destroy Chinese forces at sea, in the air, and possibly launching precision strikes deep inland at Chinese command and control centers, CSS capabilities and other strategic targets.<sup>64</sup>

Downsizing the military while rationalizing the structure of the armed forces for future warfare is typical of defense reforms. There were two phases in Taiwanese defense reform; the first, known as the Jing Shi (translated as “streamlining and consolidation”) program became effective in July 1997. The program has reduced the number of Taiwanese military personnel from 450,000 to approximately 385,000. Additionally it cut down the size of manpower and other reform elements, such as simplifying the chain of command, consolidating military educational institutions, streamlining high-level staff units and reducing the number of general officers, especially in the ground forces.<sup>65</sup> A notable aspect related to the research, the program also restructured the Taiwanese ground forces from divisions into smaller and more mobile combined arms brigades. As seen in the objectives of Taiwanese military strategy, seeking increased support from the United States, the Taiwanese ground forces mirror the U.S. Army organization. Considering the heavy dependency on the U.S. military, such reorganization of force structure may bring about some positive outcomes, especially when Taiwanese ground forces are afforded the opportunity to adopt U.S. weapon systems.

Starting in 2005, the Taiwan MND started its second phase of defense reform, the Jing Jin (enterprising) force consolidation project. The first stage cut manpower from 385,000 to 340,000 by 2006; the second stage reduced total manpower of the armed forces 300,000<sup>66</sup> scheduled to be accomplished by 2012. According to a US Pentagon report, the goal of the troop reductions is to “create a smaller army with greater mobility and firepower.”<sup>67</sup>

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<sup>64</sup> Su Tzu-yun, *The Revolution of Taiwan’s Defense Strategy and Defense Concept of Taiwan’s New Administration Taiwan Defense Affairs* 1:1 (Taipei, October 2000), 124-125.

<sup>65</sup> Michael S. Chase, *Defense Reform in Taiwan: Problems and Prospects Asian Survey*, VOL. XLV, No 3, May/June 2005, 370.

<sup>66</sup> “Troop Numbers to Be Trimmed Back,” *South China Morning Post* (Hong Kong), July 2, 2003.

<sup>67</sup> U.S. Department of Defense, *The Security Situation in the Taiwan Strait* (Washington, D.C.: U.S. Department of Defense, February 1999), 3.

## 2. Taiwanese Army Infantry Battalion

A Taiwanese mechanized infantry battalion under the brigade is shown in Figure 13. The Taiwanese Army enlisted pay grade systems ranges from E-1 to E-7. The E-3s and above pay grades are considered NCOs whereas E-2s and below are enlisted personnel. Taiwan's battalion officers, NCOs and enlisted personnel ratios are 6.1:11.3:82.6. The infantry battalion NCO ratio (11.3 percent) is a third of the USMC (40.4 percent). This ratio is larger than a ROK Army infantry battalion (4.7%) which shows that the Taiwanese military is facing a similar challenge as the ROK. This issue results from the notion that enlisted conscripts are guaranteed for recruiting and retaining compared to problems generated officers and NCO groups.

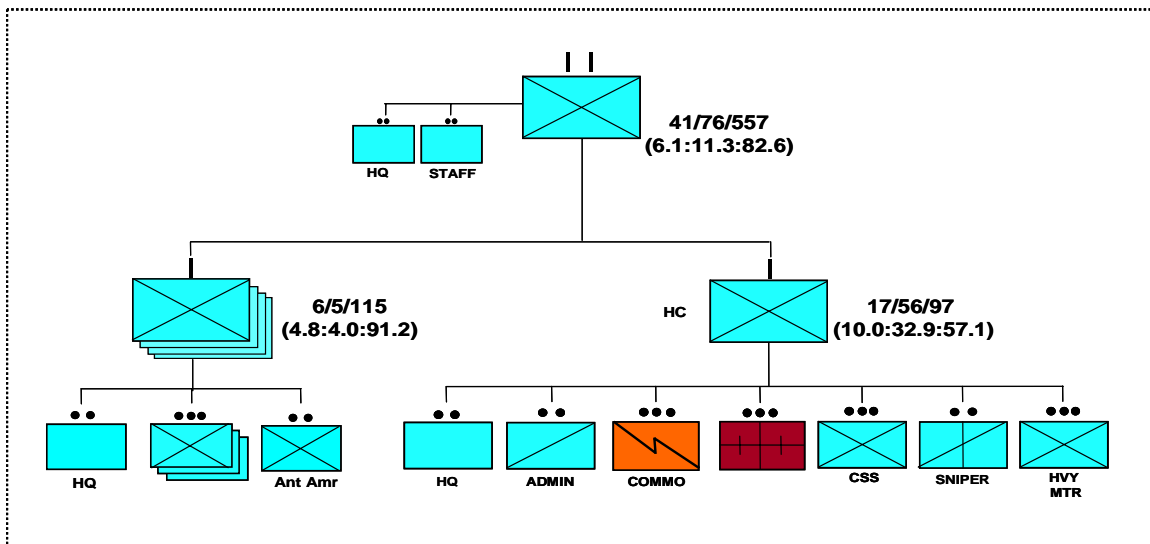


Figure 13. Taiwanese Infantry Battalion

Figure 13 represents a reorganized into a mechanized battalion due to Defense Reform. Due to the organization's structure is simpler than the other three battalion organizations, mainly because there is no weapons company, but instead, an additional rifle company. The reorganized weapons company elements have been absorbed into either Battalion Headquarters Company (120 mm Heavy Mortar Platoon) the Rifle Company (Javelin Anti-armor Section).

Taiwanese Battalion CSS capabilities possess greater internal capability than ROK mechanized infantry battalions with an organic medical platoon. The battalion

provides long-range precision fire against the enemy and information collection capabilities by the organic sniper section.

Taiwanese battalions do not possess chaplain services like the US Army and USMC nor do they have force protection capabilities (US Army). However, the Taiwanese military has been executing a Bottom-Up its defense reform to acquire increased capabilities in support of the national military strategy.

#### **F. SUMMARY: A SUGGESTED MODEL FOR A FUTURE ROK ARMY INFANTRY BATTALION**

A comparative analysis among four infantry battalions focuses on missing capabilities in the current ROK Army infantry battalion MTOE. Clearly, manpower and equipments differentiate the ROK Army infantry battalion from advanced U.S. infantry units. In addition, the research found that the Taiwanese military has already enacted defense reforms significantly improving its ground forces to meet required capabilities. Missing capabilities in comparison to advanced infantry battalions, combined with Chapter III required capabilities are summarized as below:

- Significantly increased NCO ratio
- Enhanced anti-armor capabilities in the battalion
- Enhanced CSS capabilities: medical, chaplain and transportation
- Intelligence collection capabilities
- Force protection for the Battalion Combat Post
- Enhanced fire support coordination

Comparative capabilities are shown in Table 9. As listed previously, a ROK Army infantry battalion lacks many capabilities in comparison to other international infantry battalions.

Table 9. Comparative Battalion Capabilities

	<b>Ant Amr</b>	<b>CSS</b>	<b>Sniper</b>	<b>Medical</b>	<b>Force Protection</b>	<b>Intel Collection</b>	<b>FS Coord</b>
<b>ROK Army</b>	<b>Limited</b>	<b>Limited</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>Limited</b>
<b>Taiwanese Army</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>No</b>	<b>No</b>	<b>No</b>
<b>US Marine Corps</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>Limited</b>	<b>Yes</b>
<b>US Army</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>

The research shows that the ROK Army benchmark, as compared to the three other infantry battalions, highlights the following differences:

- The current manpower size of the ROK infantry battalion is little less than 600 personnel, which is far smaller than the USMC counterpart of 874 personnel.
- The Taiwanese Infantry Battalion has not proved itself to be combat effective with its current force structure.
- Because USMC strategically focuses more on its inherent expeditionary missions, required capabilities for its infantry battalion must differentiate from one for the ROK Army battalion in the future.
- Even though the Reform Plan does not suggest the future ROK Army force structures will be brigade oriented, the future ROK Army infantry battalion will need to be reorganized into the form of an organic combat element in the sense that more self-contained capability must be given to the battalion. Even though there are inherent differences in several aspects of the capability between a battalion under a regiment and one under a brigade, the research concludes that an ROK battalion would gain more operational flexibility, similar to one in the U.S. Army infantry battalion under a brigade.
- Ultimately, ROK Army will require more flexibility in the future. This would bring about more independent operability, increased firepower and CSS from more specialized manpower and advanced equipment. By

examining the current U.S. Army infantry battalion MOTE, the research finds the U.S. Army infantry battalion proves to be more feasible than the USMC battalion or the Taiwanese counterpart.

The first future required capability is increasing the number of NCOs in the battalion. The most effective means to increase the current NCO ratio in the ROK battalion is to replace squad leader billets currently qualified as E-4 conscript to more experienced E-5s and E-6s NCOs. In addition, integrating several organic elements to the battalion will increase the NCOs ratio in such staff or support organizations than a rifle or weapons company. After incorporating other required capabilities into the current ROK Army infantry battalion, the overall ratios of officers, NCOs and enlisted personnel will be finalized.

Distributions of NCOs by pay grades are shown in Table 10 to help visualize how the three international infantry battalions NCOs are structured. Even though the ROK Army infantry battalion enlisted numbers cannot be shown, the research confirms that the structure is more than 90 percent reliant on E-1s through E-4s.

Table 10. Comparative Battalion NCO Distributions

	<b>Conscription</b>	<b>E8/9</b>	<b>E7</b>	<b>E6</b>	<b>E5</b>	<b>E4</b>	<b>E3</b>	<b>E2</b>	<b>E1</b>
<b>ROK Army</b>	<b>Yes</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Taiwanese Army</b>	<b>Yes</b>	<b>0</b>	<b>16</b>	<b>23</b>	<b>36</b>	<b>29</b>	<b>92</b>	<b>421</b>	<b>0</b>
<b>US Marine Corps</b>	<b>No</b>	<b>9</b>	<b>13</b>	<b>31</b>	<b>94</b>	<b>186</b>	<b>181</b>	<b>210</b>	<b>0</b>
<b>Us Army</b>	<b>No</b>	<b>7</b>	<b>19</b>	<b>59</b>	<b>208</b>	<b>172</b>	<b>142</b>	<b>0</b>	<b>0</b>

The second future required capability is an enhanced anti-armor. All other infantry battalions examined in this chapter have Command Launch Units (CLU) that fire Javelin missiles. A Javelin fire team under a section should consist of at least three personnel: a gunner, an assistant gunner with replaceable missile tube, and a rifleman who provides security while positioning and firing the missile.

Table 11. Enhanced Anti-armor Requirement

<b>Billet Description</b>	<b>Grade</b>	<b>Required Strength</b>	<b>Authorized Strength</b>
<b>Section Leader</b>	<b>E-6</b>	<b>9</b>	<b>9</b>
<b>Anti-armor Specialist</b>	<b>E-5</b>	<b>18</b>	<b>18</b>
<b>Assistant Gunner</b>	<b>E-4</b>	<b>18</b>	<b>18</b>
<b>Rifleman</b>	<b>E-3</b>	<b>18</b>	<b>18</b>
<b>Total Officers</b>		<b>0</b>	<b>0</b>
<b>Total NCOs</b>		<b>18</b>	<b>18</b>
<b>Total Enlisted Personnel</b>		<b>45</b>	<b>45</b>

U.S. Army infantry battalion's such anti-armor must be organic to a rifle platoon. Anti-armor capability is a fire capability rather than a fire support capability. It is most likely the rifle platoon, if not snipers or scouts, would be the first encounters and engage enemy tanks or fortified positions. Therefore, the current manpower from the organic 90mm Recoilless Rifle Platoon to Weapons Company needs to be absorbed into the nine rifle platoons in the form of either an anti-armor section or a squad. An ROK enhanced anti-armor manpower requirements are shown in Table 11. Each of the nine battalion anti-armor sections should consist of one E-6 section leader, two E-5 anti-armor NCO as gunners, two E-4s for assistant gunners and two E-3 riflemen for providing security. The total manpower requirement for an anti-armor-capability is 63 personnel for such: nine E-6s as section leaders, 18 E-5s as gunners, 18 E-4s for assistant gunners and 18 E-3s as riflemen.

Table 12. Medical Platoon and Chaplain Section Manpower Requirement

	<b>Billet Description</b>	<b>Grade</b>	<b>Required Strength</b>	<b>Authorized Strength</b>
<b>Medical Platoon</b>	<b>Platoon LDR</b>	<b>O2</b>	1	1
	<b>Medical Operations Officer</b>	<b>O2</b>	1	1
	<b>Platoon SGT</b>	<b>E7</b>	1	1
	<b>Field Surgeon</b>	<b>O3</b>	1	1
	<b>Physician Assistant</b>	<b>O3</b>	1	1
	<b>Health Care SGT</b>	<b>E6</b>	1	1
	<b>Health Care SGT</b>	<b>E5</b>	2	2
	<b>Health Care SP</b>	<b>E4</b>	1	1
	<b>Health Care SP</b>	<b>E3</b>	2	2
<b>Combat Medic Section</b>	<b>Trauma SP</b>	<b>E4</b>	15	15
<b>Ambulance Squad (x4)</b>	<b>Emergency Care SGT</b>	<b>E5</b>	8	8
	<b>AMB Aid/Driver</b>	<b>E3</b>	8	8
<b>Chaplain Section</b>	<b>Chaplain</b>	<b>O3</b>	1	1
	<b>Chaplain Assistant NCO</b>	<b>E5</b>	1	1
<b>Total Officers</b>			5	5
<b>Total NCOs</b>			13	13
<b>Total Enlisted Personnel</b>			26	26

The current ROK Army infantry battlaion lacks several interanl CSS capabilities such as medical service, chaplain service and transportation services; such capabilities are provided by the Regiment in forms of the Medical Company, the Regimental Chaplain Section and Motor Pool. Independent operational capability require these capabilities to be organic to each battalion as observed in comparable US battalions. The research found it feasible to integrate the medical and chaplain services under the current ROK battalion. A suggested organic medical platoon and a chaplain section under the current ROK Army infantry battalion is shown on Table 12. With such medical and chaplain service capabilities, the ROK Army infantry battalion will acquire a more self-contained CSS capability.

Scout Platoon manpower requirements provides the battalion an internal information collection and force security capability are shown in Table 13. Under the leadership of the Scout platoon, there are three main missions; information collection/combat patrol, precision long-range fire and force protection. Notice that the leadership of each squad is given to NCOs by Military Occupation Specialty (MOS).

Table 13. Scout Platoon Manpower Requirement

	Billet Description	Grade	Required Strength	Authorized Strength
<b>Scout Platoon</b>	<b>Platoon LDR</b>	<b>O-2</b>	1	1
	<b>Platoon Sergeant</b>	<b>E-7</b>	1	1
	<b>Radio Tele OPR</b>	<b>E-3</b>	1	1
	<b>Scout</b>	<b>E-3</b>	1	1
<b>Scout Squad (x 2)</b>	<b>Squad LDR/1st Team LDR</b>	<b>E-5</b>	2	2
	<b>Assistant SQ LDR/2nd Team LDR</b>	<b>E-4</b>	2	2
	<b>Scout</b>	<b>E-3</b>	6	6
<b>Security Squad (x 1)</b>	<b>Squad LDR/1st Team LDR</b>	<b>E-6</b>	1	1
	<b>Assistant SQ LDR/2nd Team LDR</b>	<b>E-5</b>	1	1
	<b>Scout</b>	<b>E-4</b>	4	4
	<b>Scout</b>	<b>E-3</b>	6	6
<b>Sniper Squad</b>	<b>Squad LDR</b>	<b>E-6</b>	1	1
	<b>Senior Sniper</b>	<b>E-5</b>	3	3
	<b>Sniper</b>	<b>E-4</b>	6	6
<b>Total Officers</b>			1	1
<b>Total NCOs</b>			9	9
<b>Total Enlisted Personnel</b>			26	26

Motor pool transportation requirements will increase while additional capability is added to the battalion. However, as noted in the beginning of the chapter, this particular ROK Army infantry battalion exists mostly under the FROKA infantry regiment. The geographical nature of the FROKA AOR is mostly mountainous making the unit transportation capability more effective when controlled in a centralized motor pool under each regiment. In addition, as suggested in the Reform Plan, the ROK Army anticipates that 47 ROK Army divisions will be reduced to 20 by the end of the year of 2020. However, there is no sign in the Reform Plan, suggesting that the ROK Army force structure be transformed into infantry brigade-oriented units except for those along

the Demilitarized Zone (DMZ) line.<sup>68</sup> However, this research still characterizes a future infantry battalion of the ROK Army with greater organic capability to overcome limitations caused by the inflexibility of the current force structure.

Lastly, in order to improve fire support coordination, the ROK infantry battalion must enhance the current forward observer (FO) in each section. A fire support coordination manpower section is shown in Table 14.

Table 14. Fire Support Coordination Manpower Requirement

	<b>Billet Description</b>	<b>Grade</b>	<b>Required Strength</b>	<b>Authorized Strength</b>
<b>FS Coordination Section</b>	<b>FS Officer</b>	<b>O2</b>	<b>1</b>	<b>1</b>
	<b>FS SGT</b>	<b>E6</b>	<b>3</b>	<b>3</b>
	<b>Forward Observer</b>	<b>E5</b>	<b>3</b>	<b>3</b>
	<b>FS SP</b>	<b>E4</b>	<b>3</b>	<b>3</b>
	<b>Radio Tele OPR</b>	<b>E3</b>	<b>3</b>	<b>3</b>
<b>Total Officers</b>			<b>1</b>	<b>1</b>
<b>Total NCOs</b>			<b>6</b>	<b>6</b>
<b>Total Enlisted</b>			<b>6</b>	<b>6</b>

Replaced with the current forward observer, a section led by one field artillery officer with three teams of fire support teams as suggested in Table 14. The forward observer will provide each rifle company with effective fire support through team coordination.

The future proposed ROK Army infantry battaion is shown in Figure 14. This particular Bottom-Up approach is based on the objective and direction of the ROK Defense Reform Plan 2020, which foresees a future ROK Army with flexibility and more capabilities to actively respond to uncertain threats. The research shows flexible capability based infantry battalion that allows the battalion to operate independently. The

<sup>68</sup> The ROK Ministry of National Defense, The Defense Reform Plan 2020 (Seoul, The MND, 2005), 21.

smallest tactical unit, namely an infantry battalion is afforded flexibility through specialized manpower and equipment to generate coordinated fire power, actively search for its enemy, decisive force protection and improved CSS capability.

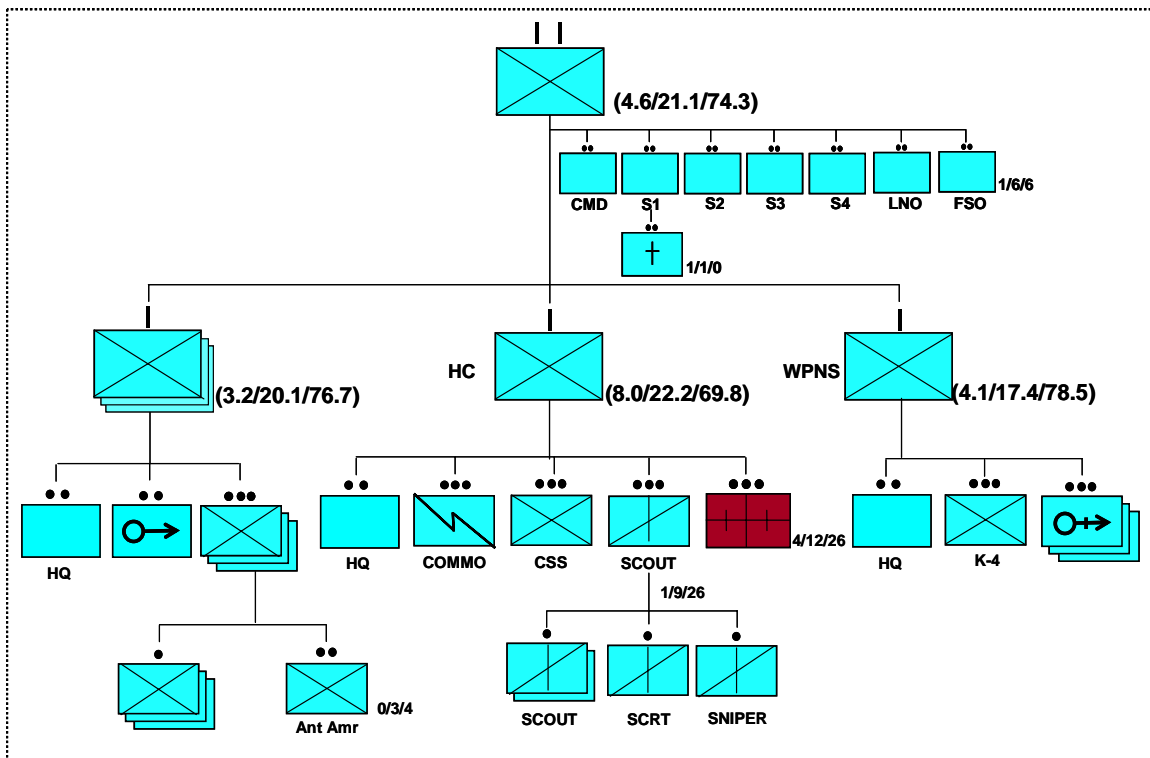


Figure 14. Bottom-Up Approach Model

Compared to the current battalion, fire teams leadership positions in each rifle squad, and most sections in the old battalion are replaced by E-5s. In addition, the battalion is augmented by several combat and CSS elements with increased manpower and equipment by Military Occupation Specialties (MOS). The research suggests the new battalion ratio among officers, NCOs and enlisted personnel be 4.6:21.0:74.4. The significant NCO ratio increased from 4.7 percent, remains behind the US Army (34.0 percent) and USMC (40.4 percent), and according to Dr. Kwan Ho Cho of the Korean Institute of Defense Analysis (KIDA), a feasible ratio of officers and NCOs by 2020 should change from 10 to 12 percent and from 25 to 30 percent respectively.<sup>69</sup> This recommended change is based on a targeted 2020 manpower force structure size of 370,000, benchmarking of foreign predecessors and manpower accession and

<sup>69</sup> Kwan Ho Cho, "Direction of Manpower Structures Development for a Successful Defense Reform," Weekly Defense Journal, (January 2006).

employment policies based on the conscription laws. The Reform Plan does not anticipate an all volunteer force in the near future that could inhibit the ability of the current personnel management system to recruit quality officers and NCOs.

## V. SUMMARY, CONCLUSION AND RECOMMENDATIONS

### A. SUMMARY

The Republic of Korea (ROK) Defense Reform Plan 2020 introduced a notion of “qualitative elitism” of current ROK defense manpower force structures.<sup>70</sup> The objective of “qualitative elitism” is executed through two tasks: downsizing the ROK Army manpower force structure while simultaneously specializing manpower to operate newly acquired and available resources reallocated from downsizing. This approach is known as “quantitative slimming and qualitative specialization of force.”<sup>71</sup>

The Reform Plan calls for a 97.8 percent reduction in manpower for the ROK Army. The basis of the Reform Plan is the alignment of strategic objectives through a Top-Down approach with its ROK Army military capabilities. The Top-Down approach reduces manpower by 177,000 Army personnel targeting a ratio of 40:60 between officers/non-commissioned officers (NCOs) and enlisted personnel 20:80. To realize this strategic goal, the research emphasized numerous Bottom-Up approaches to conform with the Top-Down approach. The ratio of commissioned officers, NCOs and enlisted personnel of 9:11:80 is feasible for the recommend future ROK Army infantry battalion.

The research build a model based on current ROK battalion capabilities. In order to execute the Reform Plan, the research found that the ROK Army force structure must change—from threat-based planning to modern capabilities-based planning as introduced in Chapter II. In search of such capabilities, the research followed the steps:

- Identify ROK Army challenges in order to deter a North Korean invasion while preparing against unspecified threats in the Northeast Asia region. To overcome such challenges, the ROK Army force structure must develop capabilities-based planning that provide flexibility to respond to both challenges.

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<sup>70</sup> Young Jin Cho, Kwan Ho Cho, Kil Ho Chung, Ju Sunge Chung, Won Bae Lee, and Ahn Sik Kim, *Defense Manpower Development Plan for an Elite Force* (Seoul: Korea Institute for Defense Analyses, 2005), 35.

<sup>71</sup> Ibid.

- The research identified required capabilities from a factors analysis of the ROK Army manpower force structure. The factors considered in the analysis were threat, military strategy, geography, strategic culture in history, technological capabilities, and economic and social factors.
- A comparative analysis among the US Army, USMC and Taiwanese Army infantry battalions examined tables of organization and equipment (MTOE) to a ROK Army infantry battalion. The current ROK Army infantry organizational diagram with the overall manpower ratio among officers, NCOs, and enlisted personnel of 4.7:4.7:90.6 is shown in Figure 15.

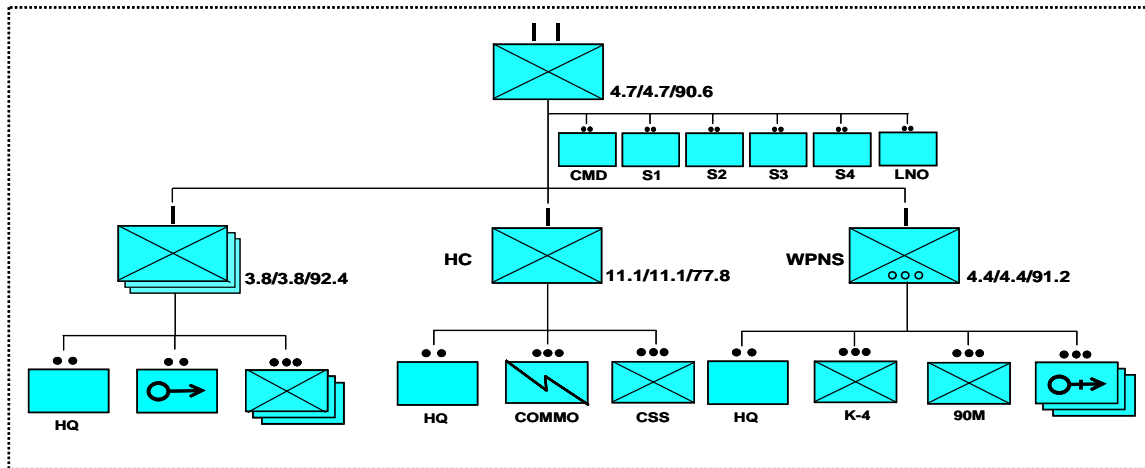


Figure 15. Current ROK Infantry Battalion

- The research identified a requirement to increase the ratio of NCOs in order to enhance the organic anti-armor, combat service support (CSS), intelligence collection and force protection, and, fire support coordination capabilities.
- The current ROK Army may be capable enough to deter North Korean aggression. However, the research concluded that the ROK Army must possess the capabilities identified above if it is to resolve the dilemma of deterring the current threats from North Korea, while preparing itself for

unspecified threats in Northeast Asia. The capabilities were incorporated into the current ROK Army infantry battalion with increased ratio numbers for NCOs—now 4.6:21.0:74.4 among officers, NCOs and enlisted personnel—and more capabilities self-contained within the battalion. The research determined that the new infantry battalion model has more flexibility with more capabilities previously provided by upper commands, as shown in Figure 16.

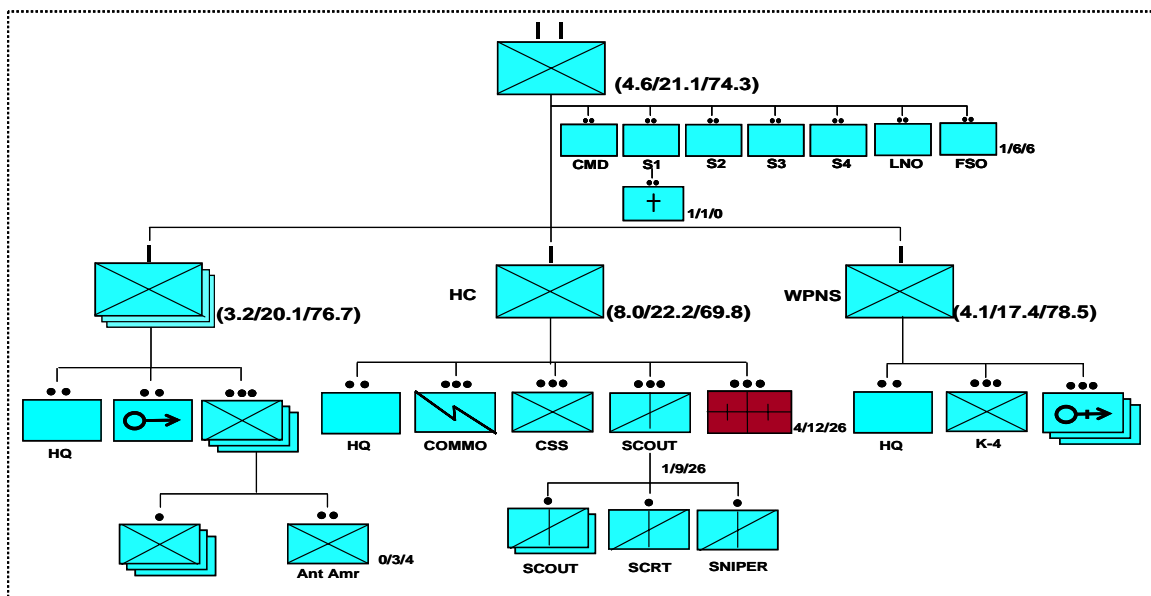


Figure 16. Suggested ROK Army Infantry Battalion

## B. CONCLUSION AND RECOMMENDATIONS: TRANSFORMATIONAL MINDSET

### 1. Research Question 1: What are the Requirements and Contributing Factors Facing Its Manpower Force Structure in “Defense Reform Plan 2020”?

#### a. Conclusion

The research concluded that the current ROK Army manpower force structure is primarily a threat-based force structure. In support of the Reform Plan, the research identified the ROK Army challenges in order to deter a North Korean invasion while preparing against unspecified threats in the Northeast Asia region. To overcome such challenges, the ROK Army force structure must develop capabilities-based planning

that provides the flexibility to respond both challenges. In order to accomplish such challenges, the ROK Army manpower force structure must consider present and future threat, military strategy, geography, strategic culture in history, technological capabilities, and economic and socioeconomics factors.

***b. Recommendation***

The research recommend that the ROK Army align its manpower force structure to support capabilities-based planning in order to gain the flexibility required to actively offset any future threat in the Northeast Asia region.

**2. Research Question 2: How are the United States Army and United States Marine Corps Infantry Battalions Currently Structured?**

***a. Conclusion***

In line with the Army Strategic Planning Guidance, the research founded that one of the US Army objectives in its force planning is to increase the Combatant Commander's ability to rapidly defeat any adversary or control any situation throughout the full range of military operations. The US believes this task can be accomplished by "developing more modular, strategically responsive organizations, cultivating, and institutionalizing a Joint and Expeditionary Mindset throughout the force."<sup>72</sup> The research therefore concluded that a modular military organization possessed the flexibility to operate in any threat environment through rapid deployments, greater firepower and increased internal sustainability. Review of a US Army infantry battalion MTOE shows that it's manpower force structure is based on a "Joint and Expeditionary Mindset" with several organic combat and combat service support (CSS) elements providing it more flexibility and therefore requiring less support from higher commands.

Similar characteristics were found in the USMC infantry battalion MTOE. However, several distinctive were noted:

- The USMC infantry battalion manpower force structure is based on the fundamental number three throughout the organization.

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<sup>72</sup> Department of the Army. The Army Plan FY 2006 – 2023. Washington D.C.: Department of the Army, 2006, 7

- The USMC battalion is bulkier than other infantry battalions for the inherent expeditionary missions that require a larger area of responsibility and may result in more unit casualties.
- The battalion tends to be more bottom-heavy whereas the US Army counterpart is more top-heavy in the NCO structure. The USMC battalion operates with E-4 and E-5 NCOs who are generally more physically fit than E-6 and above for the same reasons of expeditionary missions.

***b. Recommendation***

A comparison of the two infantry battalions shows that the ROK Army infantry battalion should benchmark the US Army because the future ROK Army will require more flexibility than expeditionary capability.

**3. What Capabilities Can the ROK Army Infantry Battalion Adopt from Other Organizations to Optimize Its Future Force Structure?**

***a. Conclusion***

The comparative analysis among the US Army, USMC, Taiwanese Army and the ROK Army infantry battalions focused on current ROK Army infantry battalion MTOE missing capabilities. The research concluded that the ROK Army should incorporate the following missing capabilities:

- Significantly increased NCO ratio focusing on pay grades of E-5 and E-6
- Enhanced anti-armor capabilities in the battalion
- Enhance CSS capabilities: medical, chaplain and transportation
- Intelligence collection capabilities
- Force protection for the Battalion Combat Post
- Enhanced fire support coordination

***b. Recommendation***

Incorporating such capabilities into a military organization is a multi-faceted task that includes long range accession planning and recruiting under the conscription environment, training, procurement and retention.

The Revolution of Military Affairs (RMA) mandates changes to four essential elements: technology, weapons systems, operations concepts and force

structure.<sup>73</sup> The research identifies a fifth crucial element for a successful RMA that is a transformational mindset to move the revolution forward. A strategic decision-making process must be imbedded in every stakeholder around the ROK Reform Plan in order to have a transformational mindset. The research identified three areas required for a successful defense reform: strategic level decision makers of the ROK military, the manpower community as a whole, and the ROK public.

Capabilities-based planning must focus is on how adversaries might undermine the national security rather than on who and where the adversaries might be. This is a well-established mindset in the U.S. military. The U.S. Department of Defense determines capabilities from a range of possible scenarios rather than focusing on specific conflicts. Such an approach provides the commanders-in-chief with various options to from which to choose depending on the threat scenario. The identification of force requirements based on the most demanding circumstances provides flexibility to manage the situation.<sup>74</sup>

Such a capabilities-based approach will require additional and different capabilities. The first step in the research assumed the Reform Plan was designed using a strategically based transformational mindset. However, the research must ask how reliable such an assumption and do the decision makers possess the strategic beliefs to create the conditions for a successful defense reform?

The ROK Army manpower community shares this transformational mindset in its own perspectives as it defines “qualitative elitism.”<sup>75</sup> However, a doubtful look still lingers at the ROK Army manpower community when there is no respective progress to implement this transformational mindset into reality. An obstacle may be in the gap between the conceptual progressiveness and the current manpower accession and personnel management systems based on conscription laws. Manpower funding may

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<sup>73</sup> Richard O. Hundley, *Past Revolutions, Future Transformations: What Can the History of Revolutions in Military Affairs Tell Us about Transforming the U.S. Military?* (Santa Monica: RAND, 1999).

<sup>74</sup> The US Department of Defense, *Appendix D, Force Structure Plan: the Department of Defense Base Closure and Realignment* (Washington D.C., the DoD, 2005), D1- D2.

<sup>75</sup> Young Jin Cho, Kwan Ho Cho, Kil Ho Chung, Ju Sunge Chung, Won Bae Lee, and Ahn Sik Kim, *Defense Manpower Development Plan for an Elite Force* (Seoul: Korea Institute for Defense Analyses, 2005), 35.

preclude necessary accession requirements to develop a technologically advanced force. Reform planners may choose to continue with cheap conscriptions accessions incompatible with reform goals. In order for the military to attract high-quality personnel in a hi-tech future military, innovations in the ROK military accession and personnel management systems require the adequate allocation of defense resources. Therefore, the research concludes that in order to transform ROK manpower, it must embrace the costs of quality accessions and technology simultaneously.

### **C. FURTHER RESEARCH**

This research only examined a Bottom-Up approach for a ROK infantry battalion force structure to suggest a feasible ratio among officers, NCOs and enlisted personnel to give flexibility in the twenty-first century defense environments. There are many additional limitations and challenges for which the ROK Army must overcome. What feasible accession methodologies can be adapted to develop the required quality manpower in the ROK NCO Corps. What manpower policy decisions must be made to blend conscription and a volunteer force to support the 2020 Reform Plan?

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