

Employment of Joint Maritime Logistics Capability During the Korean War

A Monograph

by

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Abstract

Employment of Joint Maritime Logistics Capability During the Korean War, by MAJ Michael J. Watkins, US Army, 41 pages.

Today's complex operational environment requires the joint force to rapidly respond to crises and contingencies abroad. The joint force must think expeditionary and master force projection by leveraging its joint maritime logistics capability. Force projection provides the strategic advantages of surprise, tempo, basing, prolonged endurance, and operational reach. To obtain these strategic advantages, the joint force must be proficient in joint maritime logistics operations. Joint maritime logistics operations include the combined employment of sealift and terminal capability to execute sea movement, terminal loading and unloading, and forward distribution of troops, cargo, and supplies.

History is replete with campaigns where the victor was significantly aided by the ability to rapidly project forces and sustain the flow of troops, supplies, and materials into theater. The inherent challenges with rapidly deploying and sustaining forces encountered during the Korean War remain, by and large, the same as those of the modern joint force. As such, the Korean War reminds strategic and operational planners of the vital role joint maritime logistics operations play in the rapid movement of troops, supplies, and materials from the point of embarkation to the point of debarkation and on to the forward lines.

This monograph examines the employment of joint maritime logistics capability during the initial stages of the Korean War, specifically, the defense of the Pusan perimeter. The correlation between joint maritime logistics efforts and the Far East Command's success in achieving its strategic and operational objectives are inextricable. The examination reveals that strategic and operational planners integrated Naval sealift and Army marine terminal operations to provide depleted combat divisions a steady flow of reinforcements, materials, and equipment to defend the Pusan perimeter and drive the North Korean People's Army north of the 38th Parallel.

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Acronyms

ADRP	Army Doctrine Reference Publication
CD	Cavalry Division
CINCFE	Commander in Chief of Far East
DPRK	Democratic People's Republic of Korea
ESC	Expeditionary Sustainment Command
FEAF	Far East Air Force
FECOM	Far East Command
FM	Field Manual
ID	Infantry Division
JLCOM	Japan Logistical Command
JP	Joint Publication
LST	Landing Ship Tank
MSTS	Military Sealift Transportation Service
NGO	Non-Governmental Organizations
NKPA	North Korean People's Army
OPCON	Operationally Controlled
RCT	Regimental Combat Team
ROK	Republic of Korea
RSO	Reception Staging and Onward Movement
RSOI	Reception Staging Onward Movement and Integration
TSC	Theater Sustainment Command
UN	United Nations
UNFK	United Nations Forces in Korea
USSR	Union of Soviet Socialist Republics
WWII	World War Two

Introduction

Logistics comprises the means and arrangements which work out the plans of strategy and tactics. Strategy decides where to act; logistics brings the troops to this point; grand tactics decides the manner of execution and the employment of the troops.

—Antoine Henri Baron de Jomini, *Art of War*

Background

The critical role joint maritime logistics operations have played in shaping and sustaining combat operations during every US war overseas has gone unrecognized by many. The Korean War is one of many campaigns that showcased US joint maritime logistics capability. At the onset of the war, air and ground (rail and road) modes of transportation were severely limited, making the transport of soldiers, supplies, and equipment by boat the only viable solution during critical points. Throughout the war, Naval sealift operations continued to be a reliable method of transporting troops, supplies, and equipment. In addition, marine terminal operations at Port Pusan ensured timely distribution of troops, equipment, and supplies to combat units. For example, Army marine terminal operations at the Port of Pusan, on the southeastern coast of Korea, received, discharged, and loaded more supplies and equipment than any other distribution node or operation during the Korean War.¹ As such, the Korean War demonstrated how strategic and operational planners integrated, coordinated, and synchronized Naval sealift and Army marine terminal operations as part of the Far East Command's (FECOM) comprehensive strategy to achieve strategic and operational objectives.

To understand the significant role joint maritime logistics operations played during the Korean War, Korea's history and the United States' policy concerning Korea post-World War II must be taken into consideration. After Japan's surrender during World War II, the United States and the Soviet Union partitioned Korea into two occupation zones with the 38th Parallel as the

¹ US Army, Far East Command (G4), "Combat Zone Logistics in Korea," *Transportation Corps Newsletter* (January 1953): 2.

dividing line that placed US democratic support in the south, and Soviet Union communist support in the north.² With US and Soviet tension emanating from the Cold War, and internal turmoil stemming from opposing viewpoints on the direction of Korea, war was imminent on the Korean peninsula. On June 25, 1950, the North Korean People's Army (NKPA), led by Kim Il-Sung, crossed the 38th Parallel and invaded South Korea with 100,000 troops, backed by tanks, artillery, and aircraft.³ Ostensibly, the Truman administration had withdrawn US military forces from South Korea a year earlier to prevent a large US presence on the peninsula, which was deemed by the US State Department and the Joint Chiefs of Staff as having little strategic value.⁴ Consequently, the withdrawal fueled the North Korean initiative to unify Korea on their terms. With Soviet and Chinese support, the withdrawal of US forces presented North Korea an insuppressible opportunity to invade South Korea.

South Korea was unable to defend itself against this assault. How could the United States respond quickly to this North Korean aggression and repel the assault on South Korea? As Jomini noted in the *Art of War*, "strategy and logistics" would be the US response.⁵ That is, a combination of Naval sealift capability and Army marine terminal operations supported the rapid deployment of the Eighth Army and follow-on forces, as well as subsequent offensive operations to drive the North Korean forces north of the 38th Parallel.

Purpose

By illuminating the joint maritime logistics operations during the Korean campaign, the purpose of this monograph is to raise awareness of the unique maritime logistics capability the

² George C. Herring, *From Colony to Superpower: U.S. Foreign Relations since 1776* (New York: Oxford University Press, 2008), 639.

³ Herring, *From Colony to Superpower*, 642.

⁴ Stanley Sandler, *The Korean War: No Victors, No Vanquished* (Lexington, KY: The University Press of Kentucky, 1999), 35.

⁵ Antoine-Henri, Jomini, *Summary of the Art of War (Roots of Strategy Book 2)*, ed. J.D. Hittle (Harrisburg, PA: Stackpole Books, 1987), 460.

joint force can employ during times of war. Joint maritime logistics is a critical component of the total distribution system. It supports the combatant or theater commander's concept of operation at all levels of war, thus the loading and unloading of cargo, the movement of supplies, equipment, and troops by watercraft at the Port of Pusan proved to be pivotal in shaping and sustaining operations to force North Korean forces north of the 38th Parallel.⁶

Joint maritime logistics operations at the Port of Pusan is a historical case study that illustrates the intricate role sealift and marine terminal operations played in establishing the conditions required for US forces to defeat the NKPA assault. As an expeditionary force, the sustainment warfighting function must establish the conditions to achieve strategic and operational objectives in a complex and ambiguous operational environment.⁷ An examination of joint maritime logistics operations at those specific ports during the Korean War will contribute to advocating for the joint force to maintain and advance its sealift and marine terminal operations capability.

Research Question and Hypothesis

Joint maritime logistics operations during the Korean War played a pivotal role in the FECOM's effort to drive North Korean forces back across the 38th Parallel by sustaining operations with the constant flow of materiel and troops through the Port of Pusan. Thus, FECOM forces moved by sea to reinforce the defense of the Pusan perimeter, and seized a positional advantage. To understand just how essential this joint maritime logistics effort was, this study examines maritime throughputs during the critical initial stages of the war and

⁶ US Department of the Army, *Field Manual (FM) 55-60, Army Terminal Operations* (Washington, DC: Government Printing Office, 1996), 1-1; and US Department of the Army, *Army Techniques Publication (ATP) 4-15, Army Watercraft Operations* (Washington, DC: Government Printing Office, 2015), 1-1 discusses the role of marine terminal operations, water transport operations, and how both operations support the combatant commander's strategy.

⁷ Kenneth R. Gaines and Reginald L. Snell, "Setting and Supporting the Theater," *Army Sustainment Magazine*, Volume 47, Issue 6 (November-December 2015): 10.

identifies the correlation between the maritime logistics efforts and FECOM's success in achieving its strategic and operational objective.

Army and Navy forces established the conditions necessary to force North Korean forces north of the 38th Parallel despite the strategic, operational, and logistical challenges that faced FECOM. MacArthur, through his sustainment advisors, was able to visualize the role of joint maritime logistics operations and their impact on achieving the strategic objective. Proper identification and management of ports are critical components of "Setting the Theater" to establish favorable conditions for conducting military operations in a theater of operation.⁸

The Port of Pusan was strategically and operationally imperative to MacArthur's strategy by providing FECOM forces an operational and tactical advantage over their enemy. That is, Pusan offered FECOM forces operational reach and prolonged endurance to sustain combat operations. Joint maritime logistics operations placed troops and supplies at the decisive point at the right time. MacArthur and his sustainment advisors displayed prudent judgment in the application of operational art. Without control of those key ports, and its execution of joint maritime logistics operations, FECOM would have failed in its effort to drive North Korean forces north of the 38th Parallel.

Methodology

To conduct a comprehensive examination of the employment of joint maritime logistics capability during the Korean Campaign, and thereby address how joint maritime logistics operations shaped the conditions for Eighth Army's counteroffensive, the study took into consideration the following: strategic context, sealift and terminal operations doctrine, joint logistics principles, MacArthur's strategy, theater requirements for joint maritime operations, and joint maritime logistics operations at Pusan.

⁸ General Gustave Perna, "Setting the Theater: Planning Today Provides Options for Tomorrow," *Army Sustainment Magazine*, Volume 47, Issue 6 (November-December 2015): 2.

Strategic context of the war will focus on the history of US involvement in Korea, US foreign policy prior to the NKPA's invasion, and Korea's logistical infrastructure with associated challenges that influenced MacArthur's strategy and operational approach. Next, sealift and terminal operations doctrine will describe the role and key functions of joint maritime logistics operations during times of war. In addition, this section will also present and define three joint logistics principles selected to evaluate maritime logistics operations at Pusan, listed in *Joint Publication (JP) 4.0, Joint Logistics*: responsiveness, sustainability, and survivability.

Examination of MacArthur's strategy will discuss the national, strategic, and operational objectives during the war, the conditions required to achieve them, and the logistical units that executed joint maritime operations in support of those objectives. The review of logistical commands and the Military Sea Transportation Service (MSTS) will examine their roles during the campaign, including the flow of orders or directives. This section will provide a clear understanding of the flow of support and how it was integrated into FECOM's concept of operation to drive the NKPA north of the 38th Parallel.

The overview of joint maritime logistics operations during the war will discuss the critical requirements in support of MacArthur's strategy, thereby providing the impetus for joint maritime logistics capability. The last section of the study is an examination of the joint maritime logistics operations conducted at Pusan. This examination will reveal the scope of operations, the customer, and the customer's objective. Additionally, the case study will evaluate operations at the Port of Pusan according to the selected joint principles of logistics. The study concludes with a brief recap of joint maritime logistics operations during the defense of the Pusan perimeter, and explains its applicability in today's operational environment.

Definition of Terms

The primary doctrinal sources used in this study were Joint Publications (JP), US Army Doctrine Reference Publications (ADRP), Field Manuals (FM), and Army Techniques Publication (ATP). *JP 4-01.2, Sealift Support to Joint Operations, FM 55-50, Army Water*

Transport Operations, and *ATP 4-15, Army Watercraft Operations*, provide the doctrinal framework for analyzing Naval sealift and watercraft operations while *FM 55-60, Army Terminal Operations*, and *FM 4-0, Combat Service Support*, provide the doctrinal framework for analyzing marine terminal operations at the Port of Pusan. The following definition of key terms is provided to assist the general reader in comprehension and an unbiased assessment of the material.

Joint maritime logistics operations refer to a combination of Naval sealift or water transport operations and Army marine terminal operations. Joint maritime logistics operations were paramount in establishing favorable conditions for FECOM to seize the initiative and repel the NKPA's attack. **Sealift or water transport operations** range from large, deep, draft-free port complexes to amphibious assault landings on hostile shores.⁹ **Marine terminal operations** refers to the loading, unloading, and handling of cargo and personnel between various sea ports.¹⁰

Operational art is the cognitive approach used by commanders and staffs – supported by their skill, knowledge, experience, creativity, and judgment – to develop strategies, campaigns, and operations to organize and employ military forces by integrating ends, ways, and means.¹¹

MacArthur's strategy demonstrated the application of operational art. **Elements of operational art** are intellectual tools used to help understand an operational environment as well as visualize and describe the approach taken to conduct an operation.¹² Two elements of operational art used to visualize and describe MacArthur's strategy of employing joint maritime logistics operations are operational reach and culmination. **Operational reach** is the distance and duration across which a unit can employ military capabilities; that is, the limit of a unit's operational reach is its

⁹ US Department of the Army, *Field Manual (FM) 55-50, Army Water Transport Operations* (Washington, DC: Government Printing Office, 1993), 2-1.

¹⁰ US Army, *FM 55-60* (1996), 1-1.

¹¹ US Department of the Army, *Army Doctrine Reference Publication (ADRP) 3-0, Operations* (Washington, DC: Government Printing Office, 2017), 2-1.

¹² US Army, *ADRP 3-0* (2017), 2-4.

culmination point.¹³ **Culmination** is a point or condition at which a force no longer has the capability to continue its form of operations, offense, or defense.¹⁴

Joint logistics principles are used as a guideline to assess how effectively logistics are integrated into plans and execution.¹⁵ The principles used in this study are responsiveness, sustainability, and survivability. **Responsiveness** involves providing the right support when and where it is needed.¹⁶ **Sustainability** is the ability to maintain the necessary level and duration of logistics support to achieve military objectives.¹⁷ **Survivability** includes all aspects of protecting personnel, weapons, and supplies while simultaneously deceiving the enemy.¹⁸

Scope and Limitations

This study analyzes the role of US joint maritime logistics operations at the Port of Pusan during the defense of the Pusan perimeter prior to Eighth Army's counterattack. (The study does not encompass the Korean War or all of its sustainment operations in totality.) This focus is important, because based on the impact of joint maritime logistics operations on North Korea's retreat, one can extrapolate the impact of joint maritime logistics operations in future US overseas contingencies.

Specifically, the study will explain how joint maritime logistics operations established the conditions for FECOM forces to drive the NKPA north of the 38th Parallel and its importance within MacArthur's strategy. The study does not devalue other modes of transportation and distribution or minimize their contribution to achieving MacArthur's strategic and operational

¹³ US Department of the Army, *Army Doctrine Reference Publication (ADRP) 4-0, Sustainment* (Washington, DC: Government Printing Office, 2012), 3-5.

¹⁴ US Army, *ADRP 3-0* (2017), 2-8.

¹⁵ US Department of Defense, Joint Staff, *Joint Publication (JP) 4-0, Joint Logistics* (Washington, DC: Government Printing Office, 2013), I-9.

¹⁶ US Joint Staff, *JP 4-0, Joint Logistics* 2013, I-9.

¹⁷ US Joint Staff, *JP 4-0, Joint Logistics* 2013, I-10.

¹⁸ US Joint Staff, *JP 4-0, Joint Logistics* 2013, I-10.

objective. Rather, the intent is to educate the reader about the dynamic maritime logistics capability that exists within the joint force and how operational art can best employ it.

Significance

The invasion of Cuba in 1898 was the first time the US Army realized the importance of joint maritime logistics operations for wars or contingencies fought overseas. The Korean War furthers that realization. When the NKPA attacked South Korea on June 25, 1950, US forces were not postured in Korea to defend against the assault. MacArthur's strategy required troops to be on the east and west side of the peninsula simultaneously; however, the Korean peninsula lacked the road and rail networks to transport troops and supplies, and air transport was limited. The only viable solution to moving troops in mass was using the Navy's sealift capability. The only way to receive supplies in bulk was marine terminal operations, thus expeditionary operations necessitated joint maritime logistics capability.

Section One: Strategic Context of Post-World War II Korea

Throughout history, Korea has suffered from the false promises and ambitions of aspiring global super powers competing for dominance in the Far East. That is, China, Japan, and Russia considered the Korean peninsula a strategic location in the Pacific and, thus, vital to their national security.¹⁹ As a result, Korea has served as the battlefield for the Sino-Japanese War, Russo-Japanese War, and most recently the Korean War. In each war, the Korean people have suffered the most and gained the least.

Dating back 2,000 years, the Korean people forged a society characterized by cultural homogeneity and political unity. Today, Korea is divided into two rival states. The Korean people have been effectively isolated from each other, and radically different political and social systems

¹⁹ S.C.M. Paine, *The Sino-Japanese War of 1894-1895: Perceptions, Power, and Primacy* (New York, NY: Cambridge University Press, 2003), 33.

have emerged.²⁰ Ostensibly, the Japanese surrender at the end of World War II would benefit the Korean people. Unfortunately, it gave impetus to a social and political void, which in turn influenced and supported an emerging rivalry between the United States and Russia, resulting in the Korean War.

US Foreign Policy

On August 15, 1945, President Harry S. Truman approved General Order 1, which partitioned Korea into two occupation zones separated by a dividing line called the 38th Parallel. Specifically, US forces would receive the surrender of Japanese forces in Korea south of the 38th Parallel and Soviet forces would receive surrender of Japanese forces north of the 38th Parallel.²¹ This division of Korea led to two separate entities that had diametrically opposing views on Korea's future. The Provisional Government of the Republic of Korea (ROK) led by future South Korean President, Syngman Rhee, pursued an independent anti-communist government supported by the United States. Conversely, the Democratic People's Republic of Korea headed by Kim Il Sung pursued a communist government supported by Russia. While Rhee and Kim had opposing views on the appropriate government structure for Korea, their ideologies converged on the idea of unification, and both were passionately committed to unifying Korea on their own terms.²²

During this time, the future of the Korean peninsula was actively contested across the peninsula. The Russians were actively engaged in the training, equipping, and advising of the NKPA. For example, Department of the Army intelligence reports indicate that Kim Il Sung received weekly instructions from the Union of Soviet Socialist Republics (USSR).²³ From the

²⁰ Michael J. Seth, *A Concise History of Korea: From Antiquity to the Present*, 2nd ed. (Lanham, MD: Rowman and Littlefield Publishing Group, Inc., 2016), 1-2.

²¹ Roy E. Appleman, *United States Army in the Korean War: South to the Naktong North to the Yalu June-November 1950* (Washington DC: Center of Military History, US Army, 1992), 3.

²² Herring, *From Colony to Superpower*, 639.

²³ Appleman, *United States Army in the Korean War: South to the Naktong North to the Yalu June-November 1950*, 7.

beginning, the Soviet Union had been the sponsor for the NKPA and had provided it with the sinews of war; most importantly, the Russian-built T34 tank.²⁴

In the meantime, the United States was undergoing a transformation due to post-WWII budgetary cuts. As a result, the US Army faced major problems with regard to troop strength and readiness.²⁵ Additionally, the United States did not view Korea in the same manner as Russia. While the United States wanted to prevent the spread of communism, US leaders concurred that the US had little strategic interest in keeping forces or bases in Korea, in large part due to the need for forces and resources elsewhere.²⁶ Post-WWII budgetary constraints, coupled with little strategic value in Korea, precipitated a US military withdrawal that was completed on July 8, 1949. The NKPA, supported by Russia, seized the opportunity to unify Korea and invaded South Korea on June 25, 1950. How would the United States quickly respond with majority of its forces in the Pacific postured in Japan?

Korea's Logistics Infrastructure

Geography

Korea is a narrow contiguous peninsula shaped much like the state of Florida. It borders both China and Russia along its northeastern regions. To the east, the Sea of Japan separates Korea from the islands of Japan by less than 150 miles. To the west, the Yellow Sea separates Korea from north-central China.²⁷ During the Korean War, the Korean peninsula presented many geographic, topographic, and climate challenges to combat and support forces conducting large-scale military operations. For example, the battle of Taejon demonstrated how Korea's

²⁴ Appleman, *United States Army in the Korean War: South to the Naktong North to the Yalu June-November 1950*, 11.

²⁵ Terrence J. Gough, *U.S. Army Mobilization and Logistics in the Korean War: A Research Approach* (Washington, DC: Center of Military History, US Army 1987), 25.

²⁶ James F. Schnabel, *United States Army in the Korean War: Policy and Direction the First Year* (Washington, DC: Office of the Chief of Military History, US Army, 1972), 29.

²⁷ Billy C. Mossman, *United States Army in the Korean War: Ebb and Flow November 1950-July 1951* (Washington, DC: Center of Military History, US Army, 1990), 3.

mountainous terrain and rugged landscape restricted or hindered the movement of 24th Infantry Division and prevented them from defending their flanks. Which in turn, forced their retreat.

Rail and Road Networks

The existing rail network had two main lines and very few adequate branch lines. Korea's rail network's most concerning flaw was the absence of lateral rail lines across the peninsula connecting east and western ports.²⁸ In addition, Korea lacked adequate airfields to accommodate massive amounts of cargo. Its airfields often required more than the available number of engineers to establish the requisite conditions for heavy and tactical aircraft.²⁹ Finally, airlift operations' biggest impediment was weather. In terms of land, the road network mainly consisted of single-lane, gravel-surfaced roads with steep grades and sharp curves, and like the rail network, the road network was also void of lateral routes.

These constraints and limitations hampered distribution during the early stages of the war. Colonel Edmund C.R. Lasher, Eighth Army Transportation Officer, described Korea's transportation infrastructure as "roads being extremely poor; and water as a major movement avenue for key bulk freight."³⁰ Faced with these conditions, joint maritime logistics capability to facilitate the movement of troops and supplies at critical stages of the war would be the only viable solution.

Port of Pusan

Korea's eastern, western, and southern coasts possessed limited harbors and ports conducive to sealift and marine terminal operations. Proper identification of harbors and ports is extremely critical to supporting expeditionary warfare. In the application of operational art, the elements of basing, tempo, operational reach, lines of operations, and risk influence the port

²⁸ James A. Huston, *Guns and Butter, Powder and Rice: U.S. Army Logistics in the Korean War* (Cranbury, NJ: Associated University Press, 1989), 246.

²⁹ Mossman, *United States Army in the Korean War: Ebb and Flow November 1950-July 1951*, 7.

³⁰ Edmund C. R. Lasher, MG, Military History Institute, *Oral History* (Carlisle Barracks: 1972), 65.

selection process. Strategic and operational planners must consider the necessary infrastructure that can support required operating capacity to facilitate the arrival of large vessels, Reception, Staging, and Onward Movement (RSO), port operations, and distributed sustainment.

The Port of Pusan, the terminus of the two major rail lines in Korea, remained the primary port throughout the war.³¹ With regard to survivability, its southern geographic location made it logistically challenging for NKPA forces to attack. The Port of Pusan's throughput capacity was the largest on the Korean peninsula with a discharge potential of 45,000 measurement tons a day.³² Additionally, it was the only port in South Korea with adequate deep-water dock facilities to accommodate an immense volume of cargo. The port had four piers that could berth between twenty-four and twenty-nine deep-water ships and the beach space to discharge twelve to fifteen Landing Ship Tanks (LST).³³ As FECOM forces advanced north to the 38th Parallel, port opening efforts took place at other port locations. Despite other port locations, the Port of Pusan remained the principal port for supporting FECOM forces throughout the war.

³¹ US Army, Forces Far East, and Eighth Army (G4 Special Projects Division), *Logistics Study of the Korean Campaigns 1950-1953* (Vol. I, San Francisco, CA, Dec 1954), 57.

³² Huston, *Guns and Butter, Powder and Rice: U.S. Army Logistics in the Korean War*, 218.

³³ Huston, *Guns and Butter, Powder and Rice: U.S. Army Logistics in the Korean War*, 218.

Section Two: Doctrine

Force projection, however, depends also upon the ability to rebuild combat power rapidly and effectively after the deploying material and personnel arrive in the contingency area. Build-up is accomplished by receiving personnel and equipment, reassembling personnel with equipment (that normally moves by sea), moving this capability to a location where it can become combat ready, and finally, integrating the capability into a military force capable of accomplishing the assigned mission. These operations, when considered collectively, are referred to as Reception, Staging, Onward Movement, and Integration (RSOI). When performed effectively, RSOI can be a “force multiplier.” The faster deploying forces transition from passengers and cargo into combat ready forces, the sooner they will contribute to the success of the mission.

—Institute for Defense Analyses, *Doctrine, Organizations, and Systems for RSOI*

Today’s strategic environment requires the joint force to project forces and conduct expeditionary operations abroad under austere conditions. The inherent challenges with rapidly deploying and sustaining forces encountered during the Korean War, paradoxically, remain universally the same as those of the modern joint force. However, there is one major difference – during the Korean War, Army, Navy, and Joint doctrine that articulated or described expeditionary operations was underdeveloped.

To understand the inherent challenges with projecting forces, conducting expeditionary operations, and setting a theater to shape theater operations during the Korean War, this study will ascribe to contemporary Army and Joint doctrine. Today’s doctrine addresses expeditionary and globally integrated operations in detail. It provides lucid frameworks and guidelines for forces deploying to austere environments and executing follow-on operations.

Sealift/Watercraft Operations

The Navy executed sealift and water transport operations to move cargo and troops to and throughout the Korean peninsula. According to *JP 4-01.2*, “sealift operations accounts for majority of the total cargo delivered to a theater of operations.”³⁴ Assessing and evaluating naval

³⁴ US Department of Defense, Joint Staff, *Joint Publication (JP) 4-01.2, Sealift Support to Joint Operations* (Washington, DC: Government Printing Office, 1996), I-1.

sealift operations during the Korean War requires at least a rudimentary comprehension of its purpose. According to *JP 4-01.2* and *FM 4.15*, the purpose of sealift and watercraft operations is to support the combatant commander in conducting unified land operations by providing the ability to move land forces and the necessary equipment to the desired location via sea, ocean, inland waterways, and rivers.³⁵ Sealift operations' primary function within a military strategy is to provide sustained delivery of combat power. Many factors impact or influence the Navy's ability to execute its primary function. The primary considerations when planning for sealift operations include enemy threats, weather, movement requirements, vessel requirements, and desired delivery dates.³⁶

The FECOM, Japan Logistical Command, 2nd Logistical Command, 3rd Logistical Command, and MSTC worked collectively to employ US military sealift capability during the Korean war. As this study examines joint maritime logistics operations during the war, it will demonstrate how sealift operations shaped the conditions to drive the NKPA north of the 38th Parallel by providing a sustained delivery of combat power.

Marine Terminal Operations

Marine terminal operations are vital to projecting forces all over the globe, and the Army executes terminal operations once naval ships arrive at the ports. Cargo and supplies are discharged off ships, segregated in marshalling areas, and distributed forward to combat units throughout a theater of operation. *FM 55-60, Army Terminal Operations*, define marine terminal operations as the staging, loading, discharge, transfer handling, and documentation of cargo and manifesting of personnel among various transport modes.³⁷ Marine terminal operations are highly contingent on a port's throughput capacity; that is, the port's peak rate of moving tonnage based

³⁵ US Joint Staff, *JP 4-01.2, Sealift Support to Joint Operations* 1996, III-3.

³⁶ US Joint Staff, *JP 4-01.2, Sealift Support to Joint Operations* 1996, III-3.

³⁷ US Army, *FM 55-60* (1996), 1-1.

only on its physical facilities.³⁸ Force projection missions require early identification and establishment of terminals. A well-conceived strategy, approach, and campaign plan ensures that terminals can support the deployment, reception, and onward movement of the force and its sustainment capability.

Joint Logistics Principles

The most important function of a logistics staff is to ensure the integration of logistics into the concept of operation. To achieve full integration, commanders and their logistics planners coordinate, synchronize, plan, execute, and assess logistic support to joint forces during all phases of the operation. The joint logistics principles may be used as a guideline to assess how effective logistics are integrated into plans and execution.³⁹

In this study, three joint logistics principles will serve as the framework for evaluating the efficacy of joint maritime logistics operation during the Korean War: responsiveness, sustainability, and survivability. It is paramount to define these principles according to *JP 4.0*, *Joint Logistics*, and articulate how they will be applied to the evaluation of joint maritime logistics operations during the Korean War.

1. **Responsiveness** is providing the right support when and where it is needed. Responsiveness is characterized by the speed of response to the needs of the joint force.⁴⁰ During the following case study, responsiveness will be referred as the timely movement, reception, and onward integration of reinforcements and associated equipment from the port to forward combat areas.
2. **Sustainability** is the ability to maintain the necessary level and duration of logistics support to achieve military objectives.⁴¹ During the following case study, evaluation of sustainability will assess the amount of war materials in terms of tons being processed at the Port of Pusan given the port's throughput capacity

³⁸ US Army, Forces Far East, and Eighth Army (G4 Special Projects Division), *Logistics Study of the Korean Campaigns*, 55.

³⁹ US Joint Staff, *JP 4-0, Joint Logistics* 2013, I-9.

⁴⁰ US Joint Staff, *JP 4-0, Joint Logistics* 2013, I-9.

⁴¹ US Joint Staff, *JP 4-0, Joint Logistics* 2013, I-10.

3. **Survivability** is the capacity of an organization to prevail in spite of adverse impacts or potential threats.⁴² In the following case study, survivability will refer to the tactical vulnerability of watercraft and harbors postured at the Port of Pusan to enemy attacks.

Section Three: MacArthur's Strategy

In order to evaluate the role of joint maritime logistics during the Korean War, it is necessary to understand MacArthur's theater strategy and operational approach. *JP-5.0, Joint Planning*, will be used as the doctrinal framework to describe MacArthur's theater strategy and operational approach. A rudimentary doctrinal comprehension of strategy and operational approach, according to *JP-5.0*, facilitates a clear description of MacArthur's theater strategy and operational approach. A combination of the two will reveal the significance of joint maritime logistics operations in support of MacArthur's strategic objectives.

JP-5.0, Joint Planning defines strategy and operational approach as follows:

Strategy is a prudent idea or set of ideas for employing the instruments of national power in a synchronized and integrated fashion to achieve theater, national, and/or multinational objectives. Strategy can also be described as the art and science of determining a future state/condition (ends), determining the operational approach (ways), and identifying the authorities and resources (time, forces, equipment, money, etc.) (means) necessary to reach the intended end state, all while managing associated risk.⁴³

Operational approach is a commander's description of the broad actions the force can take to achieve an objective in support of the national objective or attain a military end state. It is the commander's visualization of how the operation should transform current conditions into the desired conditions.⁴⁴

National, Strategic, and Operational Objectives

Critical to a theater strategy and operational approach is the nesting of national, strategic, and operational objectives. As the war progressed, and the NKPA retreated north of the 38th

⁴² US Joint Staff, *JP 4-0, Joint Logistics* 2013, I-10.

⁴³ US Department of Defense, Joint Staff, *Joint Publication (JP) 5-0, Joint Planning* (Washington, DC: Government Printing Office, 2017), I-5.

⁴⁴ US Joint Staff, *JP 5-0, Joint Planning* 2017, IV-17.

Parallel, evidence suggests that MacArthur either did not understand the national and strategic objectives provided to him by President Truman or completely disregarded them.

President Truman did not want US intervention to expand beyond Korea's borders, and intended to avoid heavy commitments of American resources in Korea to prevent the Soviet Union or China from entering the conflict.⁴⁵ The task, therefore, was to coerce the North Koreans to withdraw without widening the war or diverting the military resources required for the defense of Europe.⁴⁶ Truman's interpretation of the conflict can aptly be termed a "limited war."

But as a successful field commander during WWII, MacArthur only knew total war. His offensive strategy of annihilation, therefore, was fundamentally and diametrically incompatible with the limited war aims and objectives articulated by Truman. MacArthur was convinced that Korea was a war of annihilation, arguing that the "use of force cannot be limited" as there is simply "no substitute for victory."⁴⁷ MacArthur's vision of an offensive that would annihilate the NKPA required the ability to rapidly project forces. Joint maritime logistics operations would now play an intricate and vital role. This incompatibility between the two gave impetus to an acrimonious and contentious civil-military relationship between Truman and MacArthur that later resulted in MacArthur being relieved of command.

A key component of a theater strategy and operational approach is understanding the strategic and operational environment. A legitimate claim can be made that MacArthur did not understand the strategic environment. Conversely, a strong claim can be made that he understood the operational environment. On June 29, 1950, MacArthur flew to Korea to assess the conflict.

⁴⁵ Mossman, *United States Army in the Korean War: Ebb and Flow November 1950-July 1951*, 13.

⁴⁶ Eliot A. Cohen and John Gooch, *Military Misfortunes: The Anatomy of Failure in War* (New York, NY: The Free Press, 1990), 393.

⁴⁷ Allan R. Millett, *The War For Korea, 1950-1951: They Came From the North* (Lawrence, KS: University Press of Kansas, 2010), 436.

Prior to MacArthur's visit to Korea, the primary US response to NKPA invasion was air and naval firepower to support the depleting ROK Army.

After the visit, MacArthur believed the situation warranted an immediate commitment of American ground forces.⁴⁸ The NKPA had a superior army and air force in comparison to the ROK. The NKPA invaded with 10 divisions totaling 89,000 troops compared to the ROK's 65,000 troops. Additionally, the NKPA had a sizeable advantage in tanks and artillery. Russia and China supplied, armed, equipped, and trained the NKPA. The NKPA had 150 tanks where the ROK had none, and the NKPA had a three-to-one ratio in terms of artillery pieces. Further, the NKPA had the advantage of a small air force whereas the ROK's Air force was nonexistent.⁴⁹

Most salient to MacArthur's observation was the assessment of the ROK Army. The ROK Army's combat power was assessed at 30 percent after the initial invasion.⁵⁰ In his June of 1950 report to Washington officials on the status of Korea, MacArthur emphasized his position by stating, "The ROK Army is incapable of gaining the initiative over the NKPA. If the enemy advance continues much further, it will seriously threaten the fall of the Republic. The only assurance for holding the present line, and regain lost ground, is through the introduction of US ground combat forces."⁵¹

MacArthur favored a theory of action that dominated the enemy with a rapid and overwhelming strategic offensive. It is plausible to ascribe MacArthur's preferred theory of action to his experience during WWI and WWII. During both wars, he observed the defeat of Germany and Japan first hand when a rapid and ferocious strategic offensive was employed. In

⁴⁸ Appleman, *United States Army in the Korean War: South to the Naktong North to the Yalu June-November 1950*, 45.

⁴⁹ Appleman, *United States Army in the Korean War: South to the Naktong North to the Yalu June-November 1950*, 17-18.

⁵⁰ Appleman, *United States Army in the Korean War: South to the Naktong North to the Yalu June-November 1950*, 35.

⁵¹ Schnabel, *United States Army in the Korean War: Policy and Direction the First Year*, 78.

applying that same theory to the Korean War, MacArthur's end state was the NKPA's destruction or unconditional surrender. To achieve that end state, he believed air and sea power must be integrated into operations in support of ground maneuver, the size of the force must increase quickly, and the enemy must be isolated. In MacArthur's estimation, the NKPA would not only withdraw north of the 38th Parallel but would also be unable to regenerate and resurge combat power.

MacArthur had three primary objectives to achieve his military end state:

1. Defend Pusan by establishing a defensive perimeter in order to enable the generation and flow of combat power.
2. Generate enough combat power to break out of Pusan and commence offensive operations in order to regain lost territory and destroy the NKPA.
3. Isolate NKPA forces by severing their lines of communication in order to reduce their combat effectiveness.

MacArthur understood the importance of Pusan in shaping the FECOM's effort to conduct a fast-paced, aggressive, strategic counteroffensive. He ordered units to form a defense perimeter to the north and west of Pusan to ensure the continuous flow of troops and material. Pusan was FECOM's primary platform for generating combat power in Korea. At the same time, the Port of Pusan can be categorized as one of FECOM's critical vulnerabilities. If the NKPA were to seize Pusan and control the ports, the flow of forces, supplies, and equipment to the Korean peninsula would be severely hindered. MacArthur assigned the defense of Pusan to Eighth Army, and it appeared to him that Eighth Army would need every available soldier to hold the Pusan perimeter.⁵² An example of MacArthur's approach to the defense of Pusan was his guidance to JLCOM to divert shipments carrying troops originally scheduled for Japan to the

⁵² Appleman, *United States Army in the Korean War: South to the Naktong North to the Yalu June-November 1950*, 259.

Korean peninsula. He directed JLCOM to increase the direct shipments of troops and equipment from the United States to Korea. Direct shipments to Korea increased from 20 to 50 percent.⁵³

MacArthur was adamant about an increase in US ground troops. In his estimation, the ROK Army did not sustain enough combat power after the NKPA's initial attack to defend Pusan and transition to offensive operations. Additionally, he assessed that the tactical situation in Korea would deteriorate if the slow-moving pace of reinforcements to the peninsula did not improve. On July 7, 1950, during correspondence with the Joint Chiefs, MacArthur stated, "It is now apparent that we are confronted with an aggressive, well-equipped, and well-trained army. To halt and hurl back this powerful aggression, it would require 30,000 soldiers to be sent to Korea at once."⁵⁴ A major reason for the slow movement of reinforcements was that forces were postured sporadically throughout Japan. Additionally, there were not enough reinforcements in Korea or Japan to defeat the NKPA advance. Throughout July 1950, the story of battle was one of defense and withdrawal as FECOM forces exchanged space for time in which to build up their strength.⁵⁵

To generate combat power quickly, MacArthur needed an increase of troops on the Korean peninsula and troop movements by sea expedited. The combination of sealift and marine terminal operations would be paramount throughout the Korean War, a task that would fall heavily on the MSTs. Correspondence between MacArthur and the Joint Chiefs in July of 1950 highlighted MacArthur's demands for troops and the transportation capability required to facilitate the movement of troops:

To build up ... sufficiently to hold the southern tip of Korea is becoming increasingly problematical. I strongly urge that, in addition to those forces already requisitioned, an army of at least four divisions, with all component

⁵³ Huston, *Guns and Butter, Powder and Rice: U.S. Army Logistics in the Korean War*, 217.

⁵⁴ On July 17, 1950, General Almond wrote a letter to General Collins describing future campaign plans. Schnabel, *United States Army in the Korean War: Policy and Direction: The First Year*, 112.

⁵⁵ Huston, *Guns and Butter, Powder and Rice: U.S. Army Logistics in the Korean War*, 88.

services, be dispatched to this area without delay, and by every means of transportation available.⁵⁶

MacArthur's demands for combat forces were codified in three broad categories: replacements, filler units, and reinforcing units. Despite the reservations from Washington with regard to a troop increase in Korea, President Truman gradually placated MacArthur's demands. Within three months, the Army had deployed more than 100,000 troops and nearly two million tons of supplies and equipment to Korea.⁵⁷

By the end of June 1950, the NKPA had captured Seoul and placed their sights on advancing south to Pusan. In the meantime, the ROK Army and FECOM forces continued to withdraw south. As the NKPA advanced towards Pusan, their lines of communications extended. The rapid advancement of the NKPA placed a heavy strain on the NKPA's logistics and distribution network. While the NKPA approached culmination, FECOM generated combat power by receiving an influx of forces and equipment at Pusan. The combination of enemy culmination and a FECOM troop increase presented MacArthur with an opportunity to seize the initiative by isolating the enemy with air and naval power and conducting an amphibious landing in order to commence a counter ground offensive from the south. MacArthur viewed attacks on North Korea's air bases, depots, tank parks, and logistical nodes as essential to mission success.⁵⁸

To induce enemy culmination sooner, MacArthur's strategy called for air power to sever the NKPA's supply line from China and Russia.⁵⁹ MacArthur would direct Naval Forces Far East to begin intense naval operations. Naval Forces Far East would subsequently wipe out what little naval opposition the North Koreans could offer and clamp a tight blockade on the Korean coast to

⁵⁶ On July 9, 1950, MacArthur informed the Joint Chiefs that the situation in Korea was critical. MacArthur advocated for a troop increase, with troop movements to the peninsula expedited. Schnabel, *United States Army in the Korean War: Policy and Direction the First Year*, 84.

⁵⁷ Huston, *Guns and Butter, Powder and Rice: U.S. Army Logistics in the Korean War*, 103.

⁵⁸ Donald W. Boose Jr., *Over the Beach: US Army Amphibious Operations in the Korean War* (Fort Leavenworth, KS: Combat Studies Institute Press, 2008), 116.

⁵⁹ Clay Blair, *The Forgotten War: America in Korea, 1950-1953* (New York, NY: Anchor Books 1989), 124.

prevent the movement of enemy troops and supplies by water.⁶⁰ An amphibious landing with X Corps would give FECOM forces the opportunity to flank the NKPA. Once the amphibious landing was complete, the seized beachhead would serve as an alternate logistics node that could sustain forces from the west.

If MacArthur's objectives could be achieved, the NKPA would be isolated from any support and reinforcements, encircled by two opposing forces, and trapped between the cities of Inchon and Pusan. The mountainous terrain and poor road network would make an NKPA withdrawal extremely challenging. Under those circumstances, MacArthur believed the destruction of the NKPA would be imminent. General Edward Almond, FECOM Chief of Staff, described future plans and operations to General Lawton Collins, Army Chief of Staff, in a letter on July 17, 1950. The letter captures the salient points within MacArthur's strategy and approach:

Our proposed projects are developing as planned and we are confident that while the enemy stubbornly persists in his efforts to drive us back, we have blunted his principal strikes, and he is bound to be getting more exhausted while we become stronger each day and better organized to stop him. We have no fear of the outcome and thoroughly understand that current conditions are the growing pains precedent to future operations.⁶¹

It is clear, MacArthur predicated his strategy on the enemy's culmination and the rapid buildup of US forces in Korea. The rapid buildup of US forces was predicated on the efficacy of joint maritime logistics operations.

Logistical Commands/Military Sea Transportation Service

The three Army logistical commands during the Korean War were the JLCOM, the 2nd Logistical Command, and the 3rd Logistical Command. The scale and scope of each command's mission are similar to those of the modern Army sustainment commands. Specifically, JLCOM is

⁶⁰ Mossman, *United States Army in the Korean War: Ebb and Flow November 1950-July 1951*, 16.

⁶¹ On July 17, 1950, General Almond provided General Collins a brief update on the status of MacArthur's strategy and approach to the Korean conflict. Schnabel, *United States Army in the Korean War: Policy and Direction the First Year*, 112.

tantamount to a Theater Sustainment Command (TSC), the 2nd Logistical Command is comparable to an Expeditionary Sustainment Command (ESC), and the 3rd Logistical Command resembles a Sustainment Brigade. Equally important to the joint maritime logistics effort was the Navy's subordinate organization, the MSTS, reclassified as the Military Sealift Command in 1970 by the Department of Defense.

As a collective whole, these logistical organizations were the cornerstone of the distribution system that enabled MacArthur to achieve operational reach, prolonged endurance, and freedom of action during the Korean War. The MSTS executed shore-to-shore movements, and the Army executed shore-to-ground movements.

Japan Logistical Command (JLCOM)

On August 25, 1950, FECOM established a subordinate organization known as the Japan JLCOM to relieve the Eighth Army of its logistics support duties to the United Nations Forces in Korea (UNFK) and the remaining FECOM forces in Japan.⁶² The commanding general of JLCOM was Major General Walter L. Weible. The headquarters of JLCOM was located in Yokohama, Japan. The decision by MacArthur to relieve Eighth Army of its logistics support duties to UNFK enabled Eighth Army to solely focus on combat operations in Korea.

As the Army's senior logistics organization in the Pacific, JLCOM's primary mission was to ensure the uninterrupted flow of supply, equipment, and personnel to combat units in Korea without any relaxation of the occupation mission in Japan.⁶³ However, JLCOM was plagued with insufficient personnel and units. Approximately 73 percent of the units assigned to it had the dual mission of occupying Japan and simultaneously supporting combat operations in

⁶² Appleman, *United States Army in the Korean War: South to the Naktong North to the Yalu June-November 1950*, 114.

⁶³ US Army, Japan Logistical Command (Historical Section), *Logistical Problems and Their Solutions (26 August 1950-31 August 1951)*, (15 Feb 1952), 1.

Korea.⁶⁴ With JLCOM headquarters located in Japan, the key to its success would be relationships, integration, and synchronization with other logistical or transportation commands. JLCOM's ability to quickly integrate and synchronize joint maritime logistics capability to ensure the timely delivery of troops by diverting ships to the Korean peninsula, on orders from MacArthur, demonstrated the joint logistics principle of responsiveness.

2nd Logistical Command

FECOM established the 2nd Logistical Command on September 19, 1950. During its initial stages, the commanding general was Brigadier General Crump Garvin; later command transitioned to Brigadier General Paul F. Yount for the duration of the war. MacArthur's decision to position the 2nd Logistical Command as a subordinate organization of Eighth Army was based on the distance from Japan to Korea, the wide range of responsibilities already assigned to the JLCOM, and the proximity of the 2nd Logistical Command to Eighth Army.⁶⁵

The 2nd Logistical Command's main base of operations was the Port of Pusan, where it conducted marine terminal operations as part of the distribution system to support forces in Korea. Its primary mission was to receive, store, and forward supplies for the Eighth Army.⁶⁶ The 2nd Logistical Command's range of support extended from Pusan to Seoul, providing Eighth Army an operational reach of 325 kilometers. Although the 2nd Logistical Command was not a subordinate unit of JLCOM, it was responsible for forwarding the requisitions and requests of the Eighth Army to JLCOM. As we examine joint maritime logistics operations at the Port of Pusan, the flow of requests between the 2nd Logistical Command and JLCOM is critical in assessing the joint principles of responsiveness and sustainability.

⁶⁴ William J. Flanagan, Harry L. Mayfield, and Edward J. Drea, "*Korean War Logistics: The First One Hundred Days 25 June 1950 to 2 October 1950*" (Group Study Project, US Army War College, 1985), 13.

⁶⁵ Flanagan, Mayfield, and Drea, "*Korean War Logistics: The First One Hundred Days*," 15.

⁶⁶ Huston, *Guns and Butter, Powder and Rice: U.S. Army Logistics in the Korean War*, 60.

3rd Logistical Command

FECOM established the 3rd Logistical Command on September 19, 1950, as a subordinate unit of JLCOM, which, in turn, assigned it to X Corps as the sustaining force for the Inchon landing. Once X Corps had completed its amphibious landing to flank the NKPA and seize Seoul, the 3rd Logistical Command established operations at Inchon. As such, the 3rd Logistical Command performed the same support functions as the 2nd Logistical Command performed for Eighth Army.⁶⁷ In October 1950, FECOM attached the 3rd Logistical Command to the 2nd Logistical Command. In January 1951, the 3rd Logistical Command began logistics operations at the Port of Pusan in support of Eighth Army's breakout of the Pusan perimeter.⁶⁸

Military Sea Transportation Service (MSTS)

As a measure of unification, the Department of Defense established the MSTS as a subordinate organization of the Navy on October 1, 1949. The MSTS assumed responsibility for providing sealift and watercraft transportation for all military services.⁶⁹ Remarkably, nine months after its formulation, MSTS undertook a pertinent and vital role in shaping FECOM's effort to repel the NKPA assault by conducting most of the sealift and watercraft transport operations during the Korean War. As published by JLCOM in Annex Two (Transportation) of Administrative Order Three, "ocean shipping is provided by the MSTS in accordance with requirements placed by JLCOM and approved by Commander in Chief Far East (CINCFE)."⁷⁰ The MSTS was generally able to furnish the ships as needed, and cargo moved promptly.⁷¹ This coordination and synchronization process directly reflected the joint effort to achieve an optimized level of the joint logistics principle "responsiveness." Examination of this process will

⁶⁷ Huston, *Guns and Butter, Powder and Rice: U.S. Army Logistics in the Korean War*, 60.

⁶⁸ Huston, *Guns and Butter, Powder and Rice: U.S. Army Logistics in the Korean War*, 60.

⁶⁹ Huston, *Guns and Butter, Powder and Rice: U.S. Army Logistics in the Korean War*, 213.

⁷⁰ US Army, Japan Logistical Command, *Administrative Order Two: Annex Two (Transportation)*, Yokohama, Japan, (16 July 1952), 16.

⁷¹ Huston, *Guns and Butter, Powder and Rice: U.S. Army Logistics in the Korean War*, 216.

reveal whether joint maritime logistics impeded or aided the joint effort to achieve an optimal level of responsiveness.

At the onset of the war, the MSTS had a fleet of 174 ships. Requirements for sealift and watercraft operations exceeded its capability to transport cargo and troops at the rate needed to sustain forces in Korea.⁷² To mitigate this shortfall, the MSTS relied on privately owned shipping until its fleet increased. By November of 1950, the MSTS had expanded to 404 ships, the bulk of which were allocated to support the Korean War. By the end of the war, the MSTS transported approximately thirty-two million measurement tons. By comparison, this was twice the tonnage shipped from the United States in support of the American Expeditionary Force in World War I and 82 percent greater than the total shipment of supplies (17,277,000 measurement tons) for the support of Army ground and air forces in the Southwest Pacific during WWII.⁷³

Section Four: Joint Maritime Logistics Operations During the Korean War

MacArthur's strategy was highly reliant on the rapid movement of troops and supplies by sea. Logistics planners understood MacArthur's strategy and his intent. By extrapolation, their interpretation of his intent is confirmed by T. R. Fehrenbach's description of the United Nations (UN) force increase in his book, *This Kind of War*, "The UN buildup was increasing. More ships with fresh men poured into Pusan. By the end of August, UN forces had a large superiority of manpower over the enemy by nearly 100,000 troops."⁷⁴ Without an increase in forces, associated supplies to sustain them, and a distribution network to integrate forces into the Korean theater, US and ROK forces could not thwart the NKPA assault and commence offensive operations. To further understand the importance of joint maritime logistics within MacArthur's strategy, a keen focus must be directed toward the sealift movement requirements that supported the troop

⁷² Huston, *Guns and Butter, Powder and Rice: U.S. Army Logistics in the Korean War*, 212.

⁷³ James A. Huston, "Korea and Logistics," *Military Review* 36, no. 2 (February 1957): 18.

⁷⁴ T. R. Fehrenbach, *This Kind of War: The Classic Korean War History* (New York, NY: Potomac Books, Inc., 2008), 137.

increase and associated cargo. Thus, history has proven that 90-95 percent of unit equipment and sustainment cargo moves by sealift and through marine terminals.⁷⁵

Requirements

A major challenge for logisticians during operations is accurately identifying the requirements.⁷⁶ Within MacArthur's strategy and approach, the critical requirements related to transport by sea and forward distribution through marine terminals were forces, supplies, and, most notably, ammunition. Integration between planners and a close relationship between the maneuver commander and senior logistician facilitates the shared understanding needed to identify accurate logistical requirements. Furthermore, accurate identification of requirements relies heavily on the amount needed for mission success. A lack of supplies and troops can result in culmination. Conversely, too much can decrease operational tempo. Lt. Col. Charles R. Scherer, 7th Infantry Division Assistant G4, explained the impact of flawed requirements or demands on tactical level operations in John G. Westover's book, *Combat Support in Korea*:

We lost a great deal of mobility because of our overload of supplies. Our men had too much equipment. It was extremely difficult to maintain the appropriate tempo to deny the enemy positions of advantage. All the demands for extra supplies took extra transportation at the very time such great operating distances put vehicles in shorter supply.⁷⁷

Another example that demonstrates the impact of flawed or inaccurate requirements and simultaneously showcases the relentless effort of marine terminal personnel was the immense reduction of congestion at the Port of Pusan. The main contributor to Pusan's congested ports was the shipping of huge amounts and automatic supply. Although there were shortages of some supplies, JLCOM shipped other supplies to Korea in vast quantities. The vast quantities requisitioned by JLCOM, and transported by MSTs, were usually attributed to logistics planners

⁷⁵ US Army, *FM 55-60* (1996), 3-1.

⁷⁶ US Joint Staff, *JP 4-0, Joint Logistics* 2013, V-2.

⁷⁷ John G. Westover, *Combat Support in Korea: The United States Army in the Korean Conflict* (Washington, DC: Combat Forces Press, 1955) 185.

having a tendency to over-forecast requirements to support combat operations. The influx caused a backlog of cargo and supplies at marshalling areas and depots. Once the 7th Medium Port Company became operational, port congestion by the middle of September 1950 was clear.⁷⁸

A major element contributing to accurate requirements to support operations was the size of forces deployed and supported during the Korean War. A vast majority of the force and its associated cargo moved to the Korean peninsula by ship. Most notable was X Corps, which was comprised of 1st Marine Division, 7th Infantry Division, 2nd Engineer Brigade, and multiple combat service support units. The US Army accepted the responsibility for resupplying all forces in Korea to include the US Air Force, Navy, Marine Corps, the ROK Army, members of the United Nations, various non-governmental organizations (NGOs), and police forces.

Troop strength ranged from 83,000 to 949,000, to include 431 troops and civilian personnel throughout the war.⁷⁹ The cargo and supplies needed to support the number of troops deployed was enormous. On an annual basis, total tonnage discharged at mainland ports increased from 10 million measurement tons in 1951 to more than 122 million measurement tons in 1953. Average daily discharge figures rose from 26,000 to more than 34,000 measurement tons. The 8057th Provisional Port Company and the 7th Major Port Company handled 90 percent of all cargo discharged in Korea from July 1950 to December 1953.⁸⁰

Ammunition

No single class of supply received more attention in the support of operations in Korea than ammunition. Total stocks in the Far East for important weapon systems frequently fell below the authorized level of supply (ninety days in stock) and safety level of supply (sixty days in

⁷⁸ Flanagan, Mayfield, and Drea, “*Korean War Logistics: The First One Hundred Days*,” 48.

⁷⁹ Huston, *Guns and Butter, Powder and Rice: U.S. Army Logistics in the Korean War*, 123.

⁸⁰ US Army, Forces Far East, and Eighth Army (G4 Special Projects Division), *Logistics Study of the Korean Campaigns 1950-1953*, 104.

stock).⁸¹ US and ROK forces could ill afford to run out of ammunition while executing defensive operations against an advancing enemy with overmatch in personnel. The overmatch in personnel was of grave concern for tactical commanders. In *Combat Support in Korea*, Lt.Col. John E. Harbert of the 314th Ordnance Ammunition Group discussed the ammunition concern of tactical commanders and the requisite transport ships to move it:

Historians characterize the Korean War as a contest between enemy manpower and US firepower. At the start of the war, North Korean forces outnumbered US and ROK forces by an eight-to-one ratio. Tactical commanders believed a high rate of fire was essential to mission success, or in some cases, survival. The high rate of fire, and demand for an increase in the required supply rate of ammunition, prompted the rapid transport of ammunition. During a sixty-day period, 158,303 tons of ammunition which equated to twenty-seven Liberty ship loads, was delivered to regiments and battalions.⁸²

Ammunition made up over half of the tonnage of supplies distributed from Korean ports and forwarded to division areas.⁸³ Due to limited port facilities in Korea, and the delicate nature of handling ammunition, maritime terminal personnel unloaded ammunition from ships anchored offshore. The fear of ammunition shortages permeated the Korean theater and impacted marine terminal operations at one of the docks near the Port of Pusan. Major Joseph M. Heiser, ammunition officer for the 2nd Logistical Command, described an incident during the execution of marine terminal operations as a “total disregard for the safety requirements of separating certain types of ammunition.”⁸⁴ He explained the event as follows:

Ships coming from CONUS, and Japan were unloaded, and all types of ammunition were stacked together on the dock. On one occasion a boxcar loaded with grenades, while being unloaded exploded, setting off a chain reaction that

⁸¹ Huston, *Guns and Butter, Powder and Rice: U.S. Army Logistics in the Korean War*, 156.

⁸² John G. Westover, *Combat Support in Korea: The United States Army in the Korean Conflict* (Washington, DC: Combat Forces Press, 1955), 125.

⁸³ Quoted from Brochure of Activities, 2nd Logistical Command, 34. James A. Huston, *Guns and Butter, Powder and Rice: U.S. Army Logistics in the Korean War: U.S. Army Logistics in the Korean War* (Cranbury, NJ: Associated University Press, 1989), 159.

⁸⁴ LeRoy Zimmerman, “*Korean War Logistics: Eighth U.S. Army 19 September-31 December 1950*” (Study Project, US Army War College, 1986), 33.

completely demolished the pier. Sloppy storage, handling, and organization can be credited with being at fault.⁸⁵

The purpose of this example is not to discredit the efforts of marine terminal personnel, but to present evidence that contributes to a fair and equitable assessment of joint maritime logistics operations by highlighting the importance of ammunition distribution during the war.

Programmed Shipping

During the initial stages of the war, JLCOM apparently used *FM 101-10* to estimate and project future shipping requirements to Korea. Those shipping requirements were then sent to MSTs for immediate shipping. Ostensibly, the immediate shipping method appeared to be more conducive to supporting combat operations, however, immediate shipping hindered the ability of commanders and planners to plan accurately and synchronize operations for longer periods.⁸⁶ Additionally, the immediate shipping method made it difficult to track the current status of ships, plan for future sealift operations, and conduct accurate ship allocations.

The evacuation of Hungnam in December of 1950 produced unforeseeable shipping requirements and forced MSTs to reallocate ships towards the evacuation. Consequently, the hasty reallocation of ships created a shortfall in the number of ships used for routine sealift operations to Korea. This prompted MacArthur to issue a directive to JLCOM for programmed shipments to Korea. Additionally, MacArthur felt that he needed additional LSTs in the event of another enemy-forced evacuation and requested an increase of forty LSTs.⁸⁷ The Joint Chiefs of Staff denied his request; however, they addressed his concern by leveraging the commercial shipping sector.

⁸⁵ Zimmerman, "Korean War Logistics," 33.

⁸⁶ Huston, *Guns and Butter, Powder and Rice: U.S. Army Logistics in the Korean War*, 216.

⁸⁷ Huston, *Guns and Butter, Powder and Rice: U.S. Army Logistics in the Korean War*, 218.

In March of 1951, MacArthur directed JLCOM and Eighth Army to prepare a plan for programmed shipments to Korea.⁸⁸ Programmed shipping was a method established by JLCOM to anticipate requirements, determine adequacy of support, and ensure responsiveness throughout the distribution process. Shipments were based on semi-monthly delivery periods. Logistics planners in Korea submitted requisitions to JLCOM sixty days in advance, and JLCOM then had eighteen days to verify and forward the requisitions to MSTS for execution. To ensure all stakeholders had a common picture of programmed shipments, representatives from the major commands in the program conferred at routine coordination and synchronization meetings. The 2nd Logistical Command was the primary beneficiary as a result of having the visibility of incoming shipments at the ports.

When JLCOM established the process for programmed shipments, its goal was for 80 percent of the sealift missions transporting general cargo to Korea to be programmed shipments. The program excelled with expansion from general cargo to bulk fuel and ammunition. By October 1952, 94 percent of all sealift missions to Korea were programmed shipments. This resulted in improved preplanned shipping requirements and reduced the need for special rapid transit services.⁸⁹

Section Five: Case Study: Defense of the Pusan Perimeter

The Pusan perimeter was a rectangular area fifty miles from east to west, 100 miles north to south, on the southeastern tip of the peninsula defended by US and ROK forces.⁹⁰ Defense of the Pusan perimeter enabled Eighth Army to generate combat power while repelling the NKPA's attack. With the influx of US soldiers, material, and ammunitions arriving at the Port of Pusan,

⁸⁸ Huston, *Guns and Butter, Powder and Rice: U.S. Army Logistics in the Korean War*, 216.

⁸⁹ Quoted in Japan Logistical Command's summary of major events and problems, October 1953, 63. James A. Huston, *Guns and Butter, Powder and Rice: U.S. Army Logistics in the Korean War: U.S. Army Logistics in the Korean War* (Cranbury, NJ: Associated University Press, 1989), 217.

⁹⁰ Spencer C. Tucker, *Encyclopedia of the Korean War: A Political, Social, and Military History Volume II* (Santa Barbara, CA: ABC-CLIO Inc, 2000), 540.

Eighth Army mounted a strong counteroffensive against the NKPA. In *This Kind of War*, T. R. Fehrenbach summarized the importance of the Port of Pusan by stating, “At the bottom of the rectangle lay the major Port of Pusan, now pumping renewed American strength into the peninsula. Logistics personnel worked around the clock to receive ton after ton of supplies to replenish depleted divisions.”⁹¹ What Fehrenbach described is a great example of sustainability within FECOM’s strategy. Without the sustained effort of marine terminal personnel discharging an average of twenty measurement tons per day during the defense of the Pusan perimeter, Eighth Army would not have generated the required combat power to conduct a counterattack.

Control of Pusan was extremely critical to the success of North Korean forces. The NKPA understood that the Port of Pusan was the main logistics node for receiving US reinforcements and distributing supplies throughout the Korean theater. The NKPA’s primary objective was to cut off and isolate US and ROK forces on the Korean peninsula, thereby preventing them from reinforcing and building up to the point where they could go on the offensive.⁹² To that end, their plan was to capture Pusan by August 15, 1950, by applying steady pressure on all fronts of the Pusan perimeter. They would attempt to accomplish their plan by employing a fixing force, then conduct a flanking attack from the southwest as the decisive operation.

At this juncture in the war, survival rested on Eighth Army’s defense of the Pusan perimeter. On July 20, 1950, Lieutenant General Walton H. Walker, Commander of the Eighth Army, issued his famous “Stand or Die” order to his division chiefs:

There will be no more retreating, withdrawal, or readjustment of the lines or any other term you choose. There is no line behind us to which we can retreat. There will be no Dunkirk or Bataan. A retreat to Pusan would be one of the greatest butcheries in history. Capture by these people is worse than death itself. We are going to win.⁹³

⁹¹ Fehrenbach, *This Kind of War*, 108.

⁹² Tucker, *Encyclopedia of the Korean War: A Political, Social, and Military History*, 540.

⁹³ Sandler, *The Korean War: No Victors, No Vanquished*, 76.

Walker understood the geographical implications of a retreat or withdraw to Pusan. A retreat or withdraw would mean the loss of the port, with NKPA control of the port conceivably ending of the war. The terrain would not be favorable to US and ROK forces in the event the NKPA successfully isolated them. The Naktong River formed the western boundary, a line of mountains from Naktong to Yongdok formed the northern boundary, the Sea of Japan formed the eastern boundary, and the Tsushima Strait formed the southern boundary. The geographic and hydrographic location of the Port of Pusan provided the perfect conditions to force the NKPA within range of US air and naval fire support.⁹⁴ A good example of survivability integrated into the defense plan of Pusan is from August 16-17, 1950. ROK forces, defending the northern portion of the perimeter, retreated south to the beaches of Pusan. As the NKPA continued their advance, they fell in range of air and naval fire, which prevented any further NKPA advancement and allowed ROK forces to fall back on interior lines.⁹⁵

From July to early August of 1950, the NKPA was on the offensive, and advancing southeast towards Pusan. US forces were sustaining casualties at high rates and forced to withdraw further toward Pusan. The grim state of the 24th Infantry Division (ID) closely mirrored the conditions of the 25th ID and 1st Cavalry Division (CD) prior to the defense of Pusan. All three divisions were approaching the status of being “combat ineffective.” In seventeen days of combat during the month of July, the 24th ID had been driven back 100 miles. It had lost enough material to equip a full-strength division, 30 percent of its personnel were killed in action or severely wounded, and more than 2,400 soldiers were missing in action.⁹⁶

Walker’s mission became one of trading space for time, delaying until sufficient forces could be generated to execute MacArthur’s counterattack.⁹⁷ By the beginning of August 1950,

⁹⁴ Tucker, *Encyclopedia of the Korean War: A Political, Social, and Military History*, 544.

⁹⁵ Tucker, *Encyclopedia of the Korean War: A Political, Social, and Military History*, 544.

⁹⁶ Fehrenbach, *This Kind of War*, 101.

⁹⁷ Tucker, *Encyclopedia of the Korean War: A Political, Social, and Military History*, 540.

Eighth Army had withdrawn below the Naktong River into the Pusan perimeter. The NKPA continued their advance towards the perimeter with eleven divisions, which gave the NKPA a numerical advantage in ground combat soldiers. Total US combat ground troops at that time stood at approximately 45,000 in comparison to the estimated NKPA troop strength of 70,000.⁹⁸ Fortunately for Eighth Army, this disparity in combat ground troops would not remain. Eighth Army would equal those of the NKPA by the end of the first week of August, and by the end of August it had gained a numerical superiority, which continued to increase until the end of the year.⁹⁹

Walker positioned three of his understrength divisions (24th ID, 25th ID, and 1st CD) along the front of the Pusan perimeter in anticipation of facing eleven NKPA divisions. The 24th ID defended the center portion of the perimeter, the 25th ID defended the south, and the 1st CD defended the north. From August to September of 1950, the NKPA conducted a series of simultaneous attacks along four separate axes of advance, resulting in the heaviest US casualties of the war.¹⁰⁰

The key for Walker during this dark and tumultuous time was the arrival of reinforcements to bolster the defense and offset the high number of US and ROK casualties. The arrival of reinforcements at the right time and place demonstrated responsiveness within the distribution system. That is, through joint maritime logistics operations, Eighth Army was able to obtain a numerical advantage in troops within three months of the NKPA's invasion.

From August 5 to August 14, the NKPA's main effort (6th Division) would attempt to envelop US and ROK forces in Pusan from the south as the decisive operation. Walker's intent was to defend the attack and then conduct a counterattack. Concerned about whether the 25th ID

⁹⁸ Sandler, *The Korean War: No Victors, No Vanquished*, 75.

⁹⁹ Appleman, *United States Army in the Korean War: South to the Naktong North to the Yalu June-November 1950*, 265.

¹⁰⁰ Tucker, *Encyclopedia of the Korean War: A Political, Social, and Military History*, 544.

could defend the perimeter's southern front, Walker decided to reinforce the 25th ID with the 5th Regimental Combat Team (RCT), which arrived at Pusan by ship on 31 July, and the 1st Marine Brigade, which arrived by ship on 2 August.

From 4 August to 19 August, the NKPA traversed their focus to the central front of the Pusan perimeter in the vicinity of Taegu. The NKPA conducted a two-pronged attack with no fewer than five divisions and elements of an armored division in depth.¹⁰¹ The NKPA's objective was to penetrate the perimeter and seize the Taegu-Pusan rail line. With control of the Taegu-Pusan rail line, the NKPA would be able to sever the distribution of supplies from Pusan to US and ROK forces operating in the north and center portion of the perimeter. The 24th ID and 1st CD shared the responsibility of defending the central portion of the perimeter. With the combination of an intensive air bombing campaign by the Far East Air Force (FEAF), and firm resistance by ROK forces, the 24th ID and 1st CD were able to defend the perimeter. To assist the 24th ID with the defense of the perimeter, Walker reinforced the 24th ID with three regiments from the 2nd ID that arrived at Pusan between 31 July and 5 August. Upon arrival, Eighth Army ordered each regiment with an hour notice to initiate movement to Taegu.¹⁰²

Throughout the month of August, the 24th ID defended the center portion of the perimeter in an area known as the "Naktong Bulge." In defense of the Pusan perimeter, the 24th ID decisively defeated the NKPA's 4th Division, which lost nearly all its heavy equipment and weapons, and suffered an estimated 3,500 casualties. The destruction of its 4th Division was the greatest setback suffered by the NKPA during the war.¹⁰³

Despite the 24th ID's success, it lost significant combat power in the form of troops and armor. By the end of August, it needed 8,000 troops and associated equipment to bring it back to

¹⁰¹ Sandler, *The Korean War: No Victors, No Vanquished*, 75.

¹⁰² Appleman, *United States Army in the Korean War: South to the Naktong North to the Yalu June-November 1950*, 258.

¹⁰³ Appleman, *United States Army in the Korean War: South to the Naktong North to the Yalu June-November 1950*, 317-318.

a combat effective force.¹⁰⁴ Walker withdrew the 24th ID from the perimeter to reorganize and reconstitute. He replaced 24th ID with 2nd ID. 2nd ID units started to arrive at Pusan by ship between 31 July and 19 August. Eighth Army issued a directive for the 2nd ID to relieve the 24th ID on 20 August. On 24 August, the 2nd ID completely relieved the 24th ID of its mission to defend the center portion of the perimeter. By the end of September, 24th ID had received enough troops to transition to offensive operations and play a major role in the recapture of Seoul. This is another illustration of joint maritime logistics operations demonstrating responsiveness by providing needed troops at the right place and time.

The NKPA reached their culminating point by the middle of September. By the end of September, the battle for the Pusan perimeter was over.¹⁰⁵ The NKPA's lines of communication were over-extended with no plan to close the distance. NKPA support forces failed to maintain a steady flow of logistics support, and their leaders failed to adjust to Walker's mobile defense plan. Lastly, the NKPA could not stop the rapid influx of US troops and equipment arriving at the Port of Pusan and pushed to the forward lines.

The loss of divisions in conjunction with the immense distances from their bases of operation, the NKPA was out of position and off balance. The only plausible option was a NKPA retreat north of the 38th Parallel. Led by Walker, the defense of the Pusan perimeter repelled the NKPA offensive, and postured US and ROK forces for a counterattack. The defense of the Pusan perimeter was one of the most skillful mobile defense operations ever conducted by a US commander.¹⁰⁶

¹⁰⁴ Appleman, *United States Army in the Korean War: South to the Naktong North to the Yalu June-November 1950*, 389.

¹⁰⁵ Tucker, *Encyclopedia of the Korean War: A Political, Social, and Military History*, 545.

¹⁰⁶ Tucker, *Encyclopedia of the Korean War: A Political, Social, and Military History*, 540.

Analysis

The timely movement, reception, and integration of reinforcements, supplies, and equipment from the Port of Pusan to Eighth Army's combat divisions demonstrated responsiveness within the execution of joint maritime logistics operations. FECOM issued deployment notifications to units no earlier than July 10, 1950. Between 31 July and the end of August, the 5th RCT, 1st Marine Brigade, 2nd ID, and British 27th Infantry Brigade had arrived at the Port of Pusan to serve as reinforcements for Eighth Army. By 1 September, Eighth Army and ROK forces had numerical superiority over the NKPA in ground forces. That is, Eighth Army had 125,126 ground combat troops compared to the NKPA's 98,000.¹⁰⁷ Additionally, Eighth Army had over 500 medium tanks, giving them a greater than five-to-one advantage in armor.¹⁰⁸ By the end of September, three months after the invasion, Eighth Army had increased its troop strength to 131,612.¹⁰⁹ During the same timeframe, the NKPA began to culminate and retreat from the perimeter.¹¹⁰ Joint maritime logistics operations facilitated the arrival of reinforcements and equipment at a rate and within a timeframe that provided Eighth Army the requisite combat power to seize the initiative.

The 2nd Logistical Command's effort to maintain terminal operations at the Port of Pusan demonstrated the principle of sustainability by providing Eighth Army the prolonged endurance needed to avoid culmination during the defense of the Pusan perimeter. It was critical for the 2nd Logistical Command to sustain the flow of troops, materials, equipment, and supplies through the Port of Pusan. As mentioned before, the Port of Pusan was the only port on the Korean peninsula that could handle the large amounts of cargo required to sustain intense combat

¹⁰⁷ Flanagan, Mayfield, and Drea, "Korean War Logistics: The First One Hundred Days," 104.

¹⁰⁸ Tucker, *Encyclopedia of the Korean War: A Political, Social, and Military History*, 542.

¹⁰⁹ Flanagan, Mayfield, and Drea, "Korean War Logistics: The First One Hundred Days," 104.

¹¹⁰ Appleman, *United States Army in the Korean War: South to the Naktong North to the Yalu June-November 1950*, 573.

operations. A bottleneck at the port could thwart the distribution network and potentially result in the culmination of forward tactical units.

To avoid a bottleneck at the Port of Pusan, the 2nd Logistical Command could not exceed the port's 45,000 measurement tons per day throughput capacity. From July through September of 1950, the 8057th Provisional Port Company and 7th Transportation Major Port, operationally controlled (OPCON) to 2nd Logistical Command, discharged a total 1,386,370 measurement tons.¹¹¹ This equals an average of eighteen measurement tons per day. Even after the successful defense of the Pusan perimeter, marine terminal companies continued to sustain high rates of discharge without causing a bottleneck in the distribution system. The highest rate of discharge during 1950 was 846,000 measurement tons in a single month. By 1953, marine terminal companies were discharging an average of one million measurement tons a month.¹¹² As described earlier in the literature review, the combination of an 86,612 US troop increase in two months and the millions of measurement tons discharged at the Port of Pusan demonstrated sustainability with joint maritime logistics operations.

The integration and combination of air and naval fire support to enhance the defense of Pusan demonstrated the principle of survivability within the defense plan. As stated earlier, the NKPA's strategic objective was the Port of Pusan, which they viewed as the main point of entrance for allied reinforcements and logistics.¹¹³ As a result, Walker's main focus was defending the southeastern corner of Pusan, where the Port of Pusan was located. To maintain the flow of troops and materials, Eighth Army had to defend the Port of Pusan, and many of Walker's soldiers were engaged in securing the logistics infrastructure within the Pusan perimeter.¹¹⁴

¹¹¹ Flanagan, Mayfield, and Drea, "Korean War Logistics: The First One Hundred Days", 112.

¹¹² Huston, *Guns and Butter, Powder and Rice: U.S. Army Logistics in the Korean War*, 218-219.

¹¹³ Tucker, *Encyclopedia of the Korean War: A Political, Social, and Military History*, 542.

¹¹⁴ Tucker, *Encyclopedia of the Korean War: A Political, Social, and Military History*, 542.

During the initial stages of the defense, Walker did not have the numerical advantage in ground troops over the NKPA; however, he understood that he had air and naval superiority. He wisely integrated his air and naval fire support capability to counterbalance his ground combat limitations. Specifically, he arrayed his forces between the center and southern portion of the perimeter while assuming risk in the north, believing that he could continue to trade space for time there. His mitigation was to employ air and naval fire support in support of the ROK forces defending the northern region of the perimeter. Air and naval fire support provided ground forces cover when Walker shifted forces from one side of the perimeter to another. Most salient, air and naval fires forced the NKPA to operate primarily at night and away from the coast, thus hindering the NKPA's ability to capture the Port of Pusan and exhibiting survivability within the defense plan.¹¹⁵

¹¹⁵ Tucker, *Encyclopedia of the Korean War: A Political, Social, and Military History*, 544.

Section Six: Conclusion

Today's complex operational environment requires the US military to shift its posture from a large forward presence operating from numerous overseas bases to a continental United States-based joint, integrated, and expeditionary force.¹¹⁶ To be a proficient expeditionary force that can rapidly project forces to any geographic area, the joint force must be able to execute joint maritime logistics operations. Failure to master joint maritime logistics operations could disrupt the entire distribution network and result in the culmination of forces.

The invasion of Cuba in 1898, although a US victory, demonstrated the consequences of a force failing or struggling to execute joint maritime logistics, as combat forces will depart from their intermediate staging base to the forward lines unprepared for combat. The invasion of Cuba, like the Korean War, had far-reaching implications for joint maritime logistics operations. Both of these contingencies, like many others, made the joint force realize the importance of joint maritime logistics operations for wars or contingencies fought overseas. History has proven that 90-95 percent of unit equipment and sustainment cargo moves by sealift and through marine terminals.¹¹⁷ By the end of the war, the Port of Pusan handled more than three-quarters of the total tonnage that entered or departed the Korean peninsula.¹¹⁸ Without the rapid and sustained movement, loading, unloading, and forward distribution of troops, materials, and supplies facilitated by joint maritime logistics operations, strategic and operational commanders would not have been able to generate the requisite combat power to achieve their objectives.

The buildup of US forces and the generation of combat power during the defense of the Pusan perimeter, in large part, was enabled by joint maritime logistics operations. As seen earlier, Eighth's Army's progression from a depleted and casualty plagued force in June 1950 to a

¹¹⁶ Gaines and Snell, "Setting and Supporting the Theater," 10.

¹¹⁷ US Army, *FM 55-60* (1996), 3-1.

¹¹⁸ Huston, *Guns and Butter, Powder and Rice: U.S. Army Logistics in the Korean War*, 219.

combat-effective force in September 1950, can be ascribed to the arrival of 86,612 reinforcements. Dr. Houston, author of *Korea and Logistics*, provides a favorable perspective on the role of joint maritime logistics operations during the war, identifying and distilling what he believed to be the primary logistical concern that could potentially desynchronize and halt combat operations:

For logistical support of combat operations across the world's largest ocean, sea transportation, of course, was essential too, but once sufficient shipping and terminal capability had been put into service early in the conflict, overseas movement of supplies and troops and the discharge of cargo at the ports proceeded relatively smoothly under the supervision of the Navy's Military Sea Transportation Service and 2nd Logistical Command.¹¹⁹

The joint force has unique maritime logistics capability that it can employ during times of war. Joint maritime logistics is a critical component of the total distribution system that supports the combatant or theater commander's concept of operation at all levels of war and through the range of military operations.¹²⁰ The loading and unloading of cargo, the movement of supplies, equipment, and troops by watercraft is pivotal in shaping and sustaining operations within a campaign strategy or operational approach. Strategic and operational planners must understand the importance of integrating joint maritime logistics operations into the comprehensive theater strategy.

¹¹⁹ Huston, "Korea and Logistics," 20-21.

¹²⁰ US Army, *FM 55-60* (1996) and *ATP 4-15* (2015), discuss the role of marine terminal operations, water transport operations, and how both operations support the combatant commander's strategy.

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