

CLIP, CLOP, AND BUDDIES: VIETNAMIZATION AND
OPERATIONAL LEVEL LOGISTICS 1968-1971

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Art of War Scholars

by

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ABSTRACT

CLIP, CLOP, AND BUDDIES: VIETNAMIZATION AND OPERATIONAL LEVEL LOGISTICS 1968-1972, by Major Andrew P. Betson, 149 pages.

US Military Assistance Command, Vietnam (MACV) logisticians and logistics advisors faced a difficult problem set in transferring operational-level logistics tasks to the Republic of Vietnam Armed Forces (RVNAF) after US President Richard Nixon announced his Vietnamization Policy. US logisticians had to sustain combat operations while retrograding US personnel and equipment, transferring materiel to the RVNAF, and handing over logistical tasks. The RVNAF grew rapidly in size and complexity around a fledgling administrative infrastructure, deeply reliant on US support for logistics.

MACV published the Combined Logistics Offensive Plan and the Country Logistics Improvement Plan to Vietnamize operational level logistics. While these plans demonstrated critical thought by MACV, they were late in coming, lacked synchronization, and failed to leverage the natural potential of operational-level support commands to train the RVNAF in the art and science of logistics. General Joseph Heiser, Jr.'s Project Buddy in the 1st Logistical Command represented the untapped potential.

As withdrawal schedules increasingly demanded logisticians' attention throughout South Vietnam, the RVNAF's capabilities, and the Vietnamization plans, faced difficult tests. An analysis (using the Generate-Transport-Sustain-Redeploy construct) of the operational-level logistics supporting Operation Lam Son 719, the incursion into Laos in 1971, revealed the RVNAF's heavy reliance on US logistics support.

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ACRONYMS

ALC	Area Logistical Command. RVNAF geographic logistical commands subordinate to the Central Logistics Command
ARVN	Army of the Republic of Vietnam
BG	Brigadier General
CLC	Central Logistics Command
CLIP	Country Logistics Improvement Plan
CLOP	Combined Logistics Offensive Program
COL	Colonel
COSVN	Central Office for South Vietnam
CRIMP	Combined RVNAF Improvement and Modernization Program
CTZ	Corps Tactical Zone
FSA	Forward Support Area
FSB	Fire Support Base
GSG	General Support Group
GTSR	Generate-Transport-Sustain-Redeploy. A model for thinking about military logistics.
JGS	Joint General Staff
LOCC	Logistics Offensive Coordination Center
LTG	Lieutenant General
MACV	Military Assistance Command Vietnam
MG	Major General
NVA	North Vietnamese Army
OJT	On-the-Job Training
ORLL	Operations Report on Lessons Learned

POL	Petroleum, Oil, and Lubricants
RIMMS	RVNAF Improvement and Modernization Management System
RVN	Republic of Vietnam. Another name for South Vietnam
RVNAF	Republic of Vietnam Armed Forces
SFA	Security Force Assistance
SODR	Senior Officer Debriefing Report
USARV	United States Army, Vietnam. The US Army Service Component Command in the theater of operations.
USASC	Area Support Command. US geographic logistical commands subordinate to the 1st Logistical Command
VC	Viet Cong
VNAF	Vietnam Air Force
VNN	Vietnam Navy

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CHAPTER 1

INTRODUCTION

The United States Army's logisticians in Vietnam faced myriad challenges from 1968-1971. US President Richard M. Nixon established a policy of Vietnamization to transfer warfighting responsibility to the Republic of Vietnam (RVN), and its armed forces (RVNAF), to include the Army of the Republic of Vietnam (ARVN). This policy paved the way for the withdrawal of US and Free World Forces from the conflict. The withdrawal, however, was not uncontested. The new commander of the Military Advisory Command in Vietnam (MACV), General Creighton Abrams, would have to continue to fight a determined insurgent force, supported by a capable enemy army equipped by communist patrons. His commitment to a "One War" concept, giving equal measure to the combat and pacification efforts, meant that his troops would engage in significant combat operations, ranging from local patrols to secure the population, to the invasion of two neighboring countries.

The US Army's operational-level logisticians in the final years of the war had their work cut out for them in this environment. They had to sustain major combat operations, facilitate the withdrawal from theater of more troops than exist in the entire 2016 active US Army, and transfer effectively all of their tasks to the RVNAF or to RVN civilians.¹ The last of these tasks supported most directly the military/political end state

¹ Walter J. Woolwine, "Vietnam Redeployment and Materiel Retrograde," *Army Logistician* 3, no. 4 (July-August 1971): 8-9.

desired by the Nixon Administration a functional, friendly RVN capable of defending its borders, but each goal influenced the others.

This study examines how, and evaluates how well, the Americans Vietnamized the art and science of operational level logistics by describing the challenges inherent in the problem, analyzing the plan that guided MACV, and considering South Vietnamese performance in major operations in 1970-71. Such an analysis, however, demands elaboration of some definitions and context. This study's first chapter defines logistics and, specifically, refines the concept of the operational level of logistics. Then, it captures the literature and sources pertaining to logistics in the latter years of the Vietnam War, and the American efforts to transfer these important tasks to the South Vietnamese.

Chapter 2 describes the American and South Vietnamese logistical systems, and recounts the general military situation in South Vietnam in 1968-1972. Understanding the inherent logistical challenges for the Americans and South Vietnamese in the early years of the conflict provides the appropriate context to understanding the challenges of the final years. Next, the chapter addresses how the January 1968 Tet Offensive and the arrival of Richard M. Nixon administration changed the strategic approach in the war. A summary of how this approach took shape in terms of operations and troops withdrawals presents a clear picture of the environment in which the operational logisticians operated.

Chapter 3 details the reality of Vietnamization at the operational level. It explains the plan for handing over the support tasks through an analysis of MACV's Combined Logistics Offensive Plan (CLOP) and Country Logistics Improvement Plan (CLIP), and how they fell within the larger combined campaign plan. Next, the chapter shows the influence of a dynamic, prescient leader named Joseph Heiser, Jr. and how his

organization began to support the Vietnamization effort. It describes how logistics organizations possess natural potential for training host nation forces, and how various Area Support Commands took measures to improve their counterparts through an On-the-Job Training (OJT) program called Project Buddy.

The fourth chapter examines how effectively MACV Vietnamized operational logistics by studying major ARVN operations after 1969. After providing context by addressing the logistical challenges of the US/ARVN 1970 incursion into Cambodia, it deliberately addresses the invasion of Laos. The chapter shows how the planning process for the operation and the execution of operational-level logistics reveals the depths to which the RVNAF relied on the Americans to conduct major operations.

The final chapter of this study synthesizes the lessons of the previous chapters to show that MACV did a poor job Vietnamizing operational-level logistics, but shows the competing demands that presupposed this result. After summarizing the scope of this historical study, it addresses areas for future study, and the contemporary value of the study. A coherent conclusion, however, requires a coherent understanding of military logistics, a complex topic of strategic and military affairs.

What is/are Logistics?—The GTSR Cycle

Defining “logistics” is an age-old problem for those who study military art and strategy. Consider the word itself. Should one ask “What is logistics?” or “What are logistics?” Fleet Admiral Ernest King, the Chief of Naval Operations in World War II, reputedly said, “I don’t know what the hell this ‘logistics’ is that Marshall is always

talking about, but I want some of it.”² Apocryphal as this quote may be, it relays the complexity of the concept.

The range of definitions and concepts associated with the term is wide, indeed. Antoine de Jomini, in his seminal work *The Art of War* defined it as everything up to the clash between armies, to include reconnaissance and engineering.³ Admiral Henry Eccles, in his work *Logistics and the National Defense*, stated that logistics is the bridge between military operations and the national economy.⁴ Noted modern war theorist Colin Gray describes logistics as the “arbiter of strategic opportunity.”⁵ Most theorists that address the subject acknowledge the importance of the topic beyond how many short tons can be carried on a particular truck, train, or barge. Logistics is both an art and a science that can make or break a military.⁶

Given the disparity in definitions, it helps to have a construct with which to understand logistics. This paper uses the Generate-Transport-Sustain-Redeploy (GTSR)

² Naval Supply Systems Command, “Logistics Quotations,” US Air Force, accessed November 16, 2015, http://www.au.af.mil/au/awc/awcgate/navy/log_quotes_navsup.pdf, 1.

³ Antoine de Jomini, *The Art of War*, trans. G. H. Mendell and W. P. Craighill (Rockville, MD: Arc Manor, 2007), 189-191.

⁴ Henry Eccles, *Logistics and the National Defense* (Harrisburg, PA: Stackpole, 1959), 53-56.

⁵ Colin Gray, *Fighting Talk: Forty Maxims on War, Peace, and Strategy* (Westport, CT: Praeger Security International, 2007), 115.

⁶ See for instance George C. Thorpe, *Pure Logistics: The Science of War Preparation* (Washington, DC: National Defense University, 1986).

concept.⁷ It defines logistics as a series of GTSR cycles at the tactical, operational, and strategic levels. Generation at the strategic level includes manning and equipping a military. In this phase a country either develops or procures its tanks, ships, planes, and the materiel needed to sustain its military. The generation phase also encapsulates all of the activities needed to prepare this military force for conflict.

Transportation at the strategic level includes the establishment of nodes and lines of communication for the movement of the materiel and personnel into a theater of operation. This may be done on the surface (ground and/or sea) or through the air, and includes the major activities at terminals until it reaches the theater. The transportation phase requires the ability to establish and improve these lines of communication.

Once this collection of personnel and materiel is inside a theater of operations, it must be sustained. Sustainment includes maintenance of the men and materiel through a continuous provision of all classes of supply. Furthermore, the sustainment phase includes all of the infrastructure required to conduct major overhaul of materiel that may have been destroyed or expended. It is in the strategic-level GTSR Cycle's sustain phase that the operational-level GTSR cycle emerges. The operational level GTSR cycle will be elaborated below.

⁷ I developed the G-T-S-R construct while I was an instructor at the United States Military Academy. As the reading suggests, it was difficult to find something simple for my students to draw upon to understand how logistics influence military strategy. While the terms are similar to another construct, my definition of the term is more comprehensive because it includes the Force Management process as military logistics and adds redeployment to the cycle. For similar construct, see William L. Scott, "Combat Logistics," in *The Fundamentals of Military Logistics: A Primer of the Logistics Infrastructure*, ed. Craig M. Brandt (Dayton, OH: Defense Institute of Security Assistance Management, 2005), 169-181.

Finally, once a military force has completed (or ultimately failed to complete) its mission, it must redeploy. This oft-overlooked phase of logistics includes disengagement and movement out of the theater, and the disposal or transfer of equipment or property.

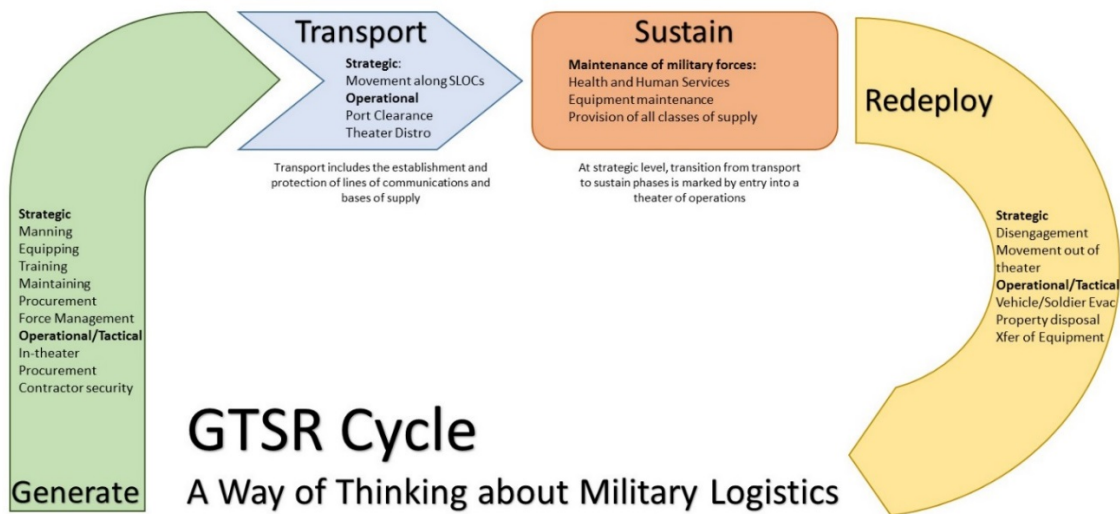


Figure 1. GTSR Cycle: A Way of Thinking about Military Logistics

Source: Created by author.

The tactical level GTSR cycle is often what comes to mind when one discusses logistics. It generally includes the actions and activities where the logisticians fall organically within combat organizations, such as in division or corps support commands. The generate phase is the most obscure phase at the tactical level when one considers a developed force like the US military. However, a developing nation's tactical units may commonly find foraging necessary for their forces in austere environments among population centers. This author, for instance, learned in 2015 how Nigerien forces procured their sustenance locally while securing their cities.

Tactical transportation includes the distribution of all classes of supply along lines of communication within an area of operations. This includes the delivery of combat power to the battlefield, such as utility helicopters delivering troops and supplies to landing zones amidst a battle.

Tactical sustainment pertains to the maintenance of the troops and materiel within an organization. Whether it is preventative care, maintenance, and checks on equipment, or conducting sick call for soldiers, or providing a hot meal at a mobile kitchen, these activities ensure the longevity of the tactical forces.

Tactical redeployment includes the ultimate extraction of tactical units from an engagement area, and the evacuation of troops and material in the midst of the fighting. For example, the ability to triage, provide immediate care for, and evacuate a wounded soldier falls within tactical redeployment.

Couched between the strategic and tactical GTSR cycles is the operational GTSR cycle, which will be used as a tool for evaluating RVNAF logistical capability. The operational GTSR cycle refers to the supply and support activities and actions in a theater, or in support of a major operation. Operational generation includes local procurement of supplies. For instance, a military may find it cheaper to purchase oil from a provider near their area of operations, rather than ship it from their country of origin.

Transportation at the operational level includes the establishment, improvement, and maintenance of nodes and lines of communications within the theater. Activities in this phase include terminal operations, such as port clearance, and theater distribution. Often overlooked, this phase includes the demanding task of synchronizing the movement and transfer of the classes of supply.

Like the strategic level, the operational sustainment phase contains the tactical GTSR cycle, but also includes major depot operations that enable the lower level activities. This includes warehousing days of supply for a theater, or in support of a major operation, ensuring uninterrupted availability of the classes of supply.

While the tactical redeployment phase includes the evacuation of troops and materials out of companies and battalions, the operational phase includes the evacuation of the same out of the divisions and corps. Moreover, this phase includes the often overlooked tasks of accounting for property at the conclusion of major operations, and the retrograde of supplies and equipment once the combat arms units no longer need them. The operational-level GTSR cycle framework serves as a productive tool for evaluating a military's logistical capability and capacity.

The scope of this study finds the US military transitioning from the sustain phase to the redeploy phase at the strategic level. Meanwhile, the ongoing hostilities between North and South Vietnam compelled the RVNAF to assume logistical activities the US once executed. The following chapters focus on how well MACV Vietnamized the activities in the operational-level GTSR cycle. A hard look at the RVNAF's operational-level GTSR capability provides insight into their true warfighting prowess. The complexity of the interplay between the art and science of warfare and logistics developed in this thesis contributes to the small amount that is written about the subject. This applies particularly to the literature associated with the waning years of the Vietnam War.

Literature Review and Sources

Historians have not written much about the American military's relationship to RVNAF logistics after the Tet Offensive. Only a few published works address how effectively MACV Vietnamized logistics efforts. The few authors on the subject agree generally that the RVNAF struggled to assume the support requirements of a modern military, but that this was no surprise to the military and political leaders involved in the conflict. The nuances of the subject reside within a few secondary works, but mainly among the wide range of available primary sources.

In contrast to the number of works specifically addressing the Vietnamization of operational logistics, there is plethora of literature that consider, evaluate, and often criticize the Vietnamization policy's effectiveness. While the many works on Vietnamization in total is beyond the scope of this work, some of the general evaluations cannot be ignored.

The literature that most contributes to this work falls into three general categories; topical histories, specific works on logistics in the Vietnam War, and the works related to Operation Lam Son 719, the invasion of Laos. Within the topical histories, there is a healthy discourse on the effectiveness of the Americans' operational approaches in Vietnam, to include evaluations of Nixon's Vietnamization policy, and the course of the war after the Tet Offensive. Most military histories have a general appreciation for logistics and address them in stride, but often inadequately. The second category, those on logistics in the war, are few but provide first-hand knowledge about the herculean efforts to sustain both the American military and the RVNAF. Finally, military histories

of the 1971 invasion of Laos provide the opportunity to draw out logistical implications of the operation.

The secondary source histories that aid in understanding military logistics fall into two general categories. First, readers will benefit from historical works on logistics to gain an appreciation for how they influence operations and strategy. Secondly, general histories of the conflict, of the years of withdrawal, and those on post-Tet operations, such as the incursions into Cambodia and Laos, provide the context within which the logisticians attempted to crack this tough nut.

In *United States Army Logistics*, Steve Waddell of the History Department at the United States Military Academy surveys the bureaucracy and logistical efforts in US military history. His work complements the more famous *Sinews of War* by James Huston by extending the topic beyond the Korean War to 2011. After addressing some of the exigencies and difficulties that faced logistics planners up to 1968, Waddell provides very little for the latter years of the conflict. His greatest contributions involves a concise report on the withdrawal operation named Keystone. Additionally, he notes the extravagance and plenty that American soldiers have experienced since the Second World War. This aspect of American military history informed how American advisors approached the buildup of the RVNAF.⁸

Waddell's work illustrates a gap in the literature on logistics in the Vietnam War. Many histories address the great challenges faced in establishing the logistics network. Joel Meyerson concludes John Lynn's *Feeding Mars* by recounting the theater's

⁸ Steve Waddell, *United States Army Logistics* (Santa Barbara, CA: Praeger Security International, 2010), 162-166.

challenges and how the US Army structured itself to face them.⁹ Economic historian Marc Levinson similarly describes the logistics environment in the early- and mid- 1960s and explains how it led to the worldwide standardization of the shipping container in *The Box: How the Shipping Container Made the World Smaller and the World Economy Bigger*.¹⁰ This prevailing understanding of the logistics challenges of the war is likely influenced by General William Westmoreland's final report and memoir. Westmoreland commanded MACV from 1964 to 1968, when he handed over command to General Abrams. He produced jointly with US Navy Admiral U.S.G. Sharp, the Commander in Chief Pacific from 1964-1968, a *Report on the War in Vietnam*, which included an informative appendix on "Logistics and Base Development."¹¹ Furthermore, he directly addresses some of his logistics challenges and how they influenced some command decisions in his memoir, *A Soldier Reports*.¹² These prolific works by the controversial

⁹ Joel D. Meyerson, "War Plans and Politics: Origins of the American Base of Supply in Vietnam," in *Feeding Mars*, ed. John A. Lynn (Boulder, CO: Westview Press, 1993), 271-287. *Feeding Mars* is very much an answer to Martin Van Creveld's seminal work *Supplying War*. The various authors address some concerns in Van Creveld's conclusions, and add some critical American experiences. Van Creveld notably did not address the American Civil War, nor, perhaps understandably given his first edition's publication date, the Vietnam War. Van Creveld responded to Lynn's edited volume in his second edition. See Martin Van Creveld, *Supplying War: Logistics from Wallenstein to Patton*, 2nd ed. (Cambridge: Cambridge University Press, 2004).

¹⁰ Marc Levinson, *The Box: How the Shipping Container Made the World Smaller and the World Economy Bigger*, 2nd ed. (Princeton, NJ: Princeton University Press: 2016), 230-253.

¹¹ U. S. G. Sharp and William Westmoreland, *Report on the War in Vietnam* (Washington, DC: Government Reprints Press, 2001), 253-266.

¹² William Westmoreland, *A Soldier Reports* (Garden City, NY: Doubleday, 1976), 124-125, 185-188.

commander seem to have inspired rightful interest in the logistics challenges of the early years, but left little interest in the Abrams' years of command.

In *The Lifeblood of War*, Julian Thompson did not constrain himself to the Westmoreland years. Like Waddell, he also addresses the Americans' propensity for lavish logistics in his chapter "Insufficiency and Super-Abundance." Thompson, formerly a British commando brigade commander during the Falkland Islands War, contrasts how the French could not muster sufficient supplies during their years of trying to maintain a unified Vietnam with the abundance of American forces. He directly addresses some of Vietnamization's shortcomings, and discusses some logistical components of the Cambodian Incursion, Lam Son 719, and the Easter Offensive. Thompson drew heavily from both Khuyen and Heiser (discussed below), but he lacked the reports from the Area Support Commands to address what efforts the Americans made.¹³

While the historiography of military logistics is meek, that is not the case for the Vietnam War in general. Many seek to explain how such a world power as the United States failed to establish a viable South Vietnam. While most of these works provide useful context, they generally lack substantive discussion of logistics, but for treatment of the famous Ho Chi Minh Trail. George Herring's seminal work, *America's Longest War*, reflects how most single volume histories of the war approached the topic. Herring devotes a few pages to Vietnamization, with special emphasis on how the Americans made the RVNAF into a large modern force seemingly overnight, but not before the

¹³ Julian Thompson, *The Lifeblood of War* (London: Brassey's, 1991), 206-219.

RVNAF had become overly dependent on its ally.¹⁴ Herring alludes to the relationship of the logistical requirements of the modernization of the RVNAF and their reliance on the Americans with respect to logistics, but lack any in depth discussion in his influential survey.

Two histories that focus on the war after the Tet offensive have slightly differing views of American success. In *A Better War*, Lewis Sorley argues that the Vietnamization and pacification efforts under the tutelage of General Abrams brought victory in late 1970, but that US policy decisions to suspend support years later led to ultimate defeat.¹⁵ James Willbanks in his book *Abandoning Vietnam* agrees with Sorley on the timeline pressures from Secretary of Defense Melvin Laird, but grants no victory. Willbanks argues that the fall of Saigon was the end of a long process begun with the rise of the Nixon administration and the genesis of the Vietnamization program. In his work, though, Willbanks defines the Vietnamization policy, MACV's plan to institute it, and measures the effectiveness of the program through the fall of Saigon. His explanation of

¹⁴ George C. Herring, *America's Longest War*, 4th ed. (Boston: McGraw Hill, 2002), 283-288; See also Guenter Lewy, *America in Vietnam* (Oxford: Oxford University Press, 1978), 164-222; U. S. G. Sharp, *Strategy for Defeat* (San Rafael, CA: Presidio Press, 1978), 240-242; Dave R. Palmer, *Summons of the Trumpet* (San Rafael, CA: Presidio Press, 1978), 218-255.

¹⁵ Lewis Sorley, *A Better War* (Orlando, FL: Harcourt, 1999), 217-218. See also Sorley's three causes for failure as they have stood out to him over time: The termination of public support, materiel support, and fiscal support; the failure to build effective leadership in the rapidly expanded RVNAF; and the failure to isolate the battlefield. 381-382

the expectation of the residual force informs how the Americans approached the Vietnamization of operational logistics.¹⁶

Apart from independent historians, the official histories published by the US Army are valuable. While the authors' charge limits their freedom to be overly critical, they are written by professional historians, so their treatment of sources can be trusted. Jeffrey Clarke addressed some of the key elements of this study in his work *Advice and Support: The Final Years*. His chapter, "Vietnamization of Military Support," provides a valuable record and assessment of how the Americans transferred logistical tasks. He gives credit to the 1st Logistical Command (1st Log Cmd) elements for instituting OJT efforts before MACV formally assumed some advisory roles. Furthermore, he addresses how Vietnamizing different tasks varied by function, reflecting the complexity of this monumental effort.¹⁷ While Clarke's account of the improvement and modernization efforts convey to depth of research portrayed in his notes and bibliography, he does not discuss MACV's plans for improving and transferring logistical tasks to the RVNAF in any detail.

Clarke's work is a great companion to Graham Cosmas' *MACV: The Joint Command in the Years of Withdrawal*. This command history provides an account of MACV's approach to the conflict from the arrival of General Creighton Abrams to the final drawdown. It provides insight into the plans for the RVNAF modernization such as

¹⁶ James H. Willbanks, *Abandoning Vietnam* (Lawrence, KS: University Press of Kansas, 2008), 4, 24-32.

¹⁷ Jeffrey J. Clarke, *Advice and Support: The Final Years* (Washington, DC: US Army Center for Military History, 1988), 427-445.

the Combined RVNAF Improvement and Modernization Plan (CRIMP), and of the method behind the order of forces to be withdrawn over the course of Operation Keystone.¹⁸ Like Clarke's work, Cosmas' volumes telling MACV's story did not include details related to this important effort.

The study of logistical activities in war, particularly one as enduring as the Vietnam War, can be challenging due to the consistent activation, movement, and withdrawal of forces throughout the country. Regarding this turbulence in the final years, Shelby Stanton's *Vietnam Order of Battle* accounts for the arrival and departure of units, to include support commands and groups, and functional organizations throughout the theater and the war.¹⁹ His work proved critical in portraying the American logistical network in chapter 2.

The second major category of works contributing to this study deal specifically with logistics in the Vietnam War. Two monographs provide the most comprehensive review—Joseph Heiser's *Logistic Support* from the Vietnam Studies series, and Dong Van Khuyen's *RVNAF Logistics* from the Indochina Monographs Series. The authors possessed exceptional qualification for their subjects. The former contributed to a topical series of works meant to capture immediate lessons of the war for the US Army. After describing the logistics environment, the monograph addresses each of the major sustainment activities with special interest on commodities, such as petroleum and

¹⁸ Graham Cosmas, *MACV: The Joint Command in the Years of Withdrawal* (Washington, DC: US Army Center for Military History, 2007), 173, 210, 270.

¹⁹ Shelby Stanton, *Vietnam Order of Battle* (Mechanicsburg, PA: Stackpole Books, 2003), 191-229.

ammunition. Apart from providing quantitative data and analysis, it also includes qualitative commentary, such as an assessment of most of the stages of the retrograde Operation Keystone. While Heiser speaks generally well of the logisticians' efforts, he is critical of the logistical training efforts in his chapter, "Logistics Support of U.S. Advisors and Special Forces, Vietnam Armed and Pacification Forces, and Free World Military Assistance Forces." His criticism was prescient. Though it was published in 1974, all of the front matter is dated December 1972, predating the fall of South Vietnam.²⁰ Heiser used much of his monograph to flesh out the Vietnam chapters of his memoir, *A Soldier Supporting Soldiers*.²¹ Apart from providing the critical starting point for this study, Heiser's works directed attention to his archival papers that exposed a strong leader with an exceptional understanding of the problem addressed in this work.

Dong Van Khuyen's monograph *RVNAF Logistics* complements Heiser's work by providing the South Vietnamese perspective from after the final collapse. His was one of a series of 20 works written by prominent officers from the South Vietnamese, Laotian, and Cambodian armed forces on military topics and events related to the war. In three parts, Khuyen captures chronologically the performance of the RVNAF logistics system from 1955 to 1975. His second part includes a chapter on the "Logistic Support for Combat Operations," in which he covers and evaluates the incursions into Cambodia and Laos, and the 1972 Easter Offensive. Khuyen's third part covers the period after

²⁰ Joseph M. Heiser, Jr., *Vietnam Studies: Logistic Support* (Washington, DC: US Army Center for Military History, 1991), iii, 67-72, 238-241.

²¹ Joseph M. Heiser, Jr., *A Soldier Supporting Soldiers* (Washington, DC: US Army Center for Military History, 1992), 127-167.

America withdrew her troops leaving the RVN to face the North Vietnamese on their own. He concludes that the RVNAF was never capable of self-reliance, despite the efforts of the Americans in the periods of modernization and improvement.²²

The final category pertains to Operation Lam Son 719. The existing literature agree, fundamentally, that the RVNAF performed poorly in the invasion of Laos for a number of reasons, that the planning and execution of the operation exposed the RVNAF's reliance on the Americans in major military endeavors, and that the Nixon administration touted it as a success for the Vietnamization policy in order to accelerate the timeline for American withdrawal. Keith Nolan's groundbreaking account *Into Laos* drew extensively from first-person accounts, to include key logistical leaders, to form an impressive narrative. The work relies too heavily at times on the perspective of young soldiers, and lacks the benefit of time to have developed the North Vietnamese Army's (NVA) activities.²³ James Willbanks fills this gap in his book *A Raid Too Far*, with an impressive chapter on the NVA's preparation for and response to the operation. His account reflects the benefit of military experience, and the opportunity to gain first-hand

²² Dong Van Khuyen, *RVNAF Logistics* (Washington, DC: US Army Center for Military History, 1984). Though it is beyond the scope of this study, readers seeking deeper appreciation for Eccles concept of the Logistics Bridge should read Khuyen's account. Khuyen provides a helpful view of the economics of South Vietnam spanning the course of the conflict. He relays the essential connection between RVN's poor national economy and the unfortunate results it had on the nation's military logistical potential, particularly after the US Congress suspended military support and funding.

²³ Keith W. Nolan, *Into Laos: The Story of Dewey Canyon II / Lam Son 719* (Novato, CA: Presidio Press, 1986).

knowledge from North Vietnamese sources.²⁴ While both of these works addressed the logistical challenges of the operation, the most valuable resources for this study proved to be the primary sources produced by the US XXIV Corps and the logistical elements supporting the fight.

Due to the dearth of sources that address logistics in sufficient detail the most critical category of sources that assists in understanding and evaluating the Vietnamization of operational level logistics includes the many plans, reports, articles, and unit histories from the era. They are unsullied by some of the retrospective controversy attached to the Vietnam War and the knowledge of the ultimate capitulation. One should not forget, however, that individuals wrote the summary reports about their unit's or their own performance, so there is potential for exaggeration of achievements, or minimization of failures.

Commanders at various echelons recognized the need to transfer activities and operations to the RVNAF and the South Vietnamese civilians at variable times throughout the war. These efforts were formalized at different times as well, through policies and then by orders. The original orders, such as the CLIP, or the order from the 1st Log Cmd Headquarters that created Project Buddy reveal the challenges inherent in the tasks. They may show how a commander has conceptualized a process, or how the commander is implementing his higher headquarters' concept. Given the collection of such well thought out plans that were produced, the challenge is finding why they could

²⁴ James H. Willbanks, *A Raid Too Far: Operation Lam Son 719 and Vietnamization in Laos* (College Station, TX: Texas A&M University Press, 2014).

not be translated into a fully functioning military system for the RVNAF. This aspect of execution can be hard to surmise, but can be interpreted by reports on progress.

Three collections of reports provide a periodic survey of the efforts made by troops in Vietnam - the Operational Reports on Lessons Learned (ORLL), the Senior Officer Debriefing Reports (SODR), and the command histories. The ORLLs were submitted on a quarterly basis by certain units to capture and promulgate lessons learned, and to request or recommend changes to doctrine, organization, etc. Like the ORLLs, Army Regulations also required certain leaders to submit SODRs when they relinquished command, and/or exited the theater. Finally, MACV produced yearly Command Histories with an eye on capturing the events of the associated year, and contributing to refined histories later.

The recurring nature of these reports allow us to estimate how the various commands and commanders approached and appreciated specific missions. Some commanders used their final debriefing reports as a tool to capture the work accomplished under their command, while others seem to have not bothered with the administrative requirement. Brigadier General (BG) Albert Hunter, Commanding General of the US Area Support Command (USASC) Qui Nhon, for instance submitted a 30-page report with recommendations on processes, and reports of successes.²⁵ His predecessor, BG Darrie Richards, in comparison, submitted only three pages, telling the reader to refer

²⁵ Senior Officer Debriefing Report (hereafter cited as SODR), BG Albert E. Hunter, 1 June 1970, Defense Technical Information Center (hereafter cited as DTIC), provided on disk by the Ike Skelton Combined Arms Research Library (hereafter cited as CARL).

to his unit's ORLL.²⁶ Despite this inconsistency, the SODRs and ORLLs taken in tandem are reasonable tools to determine how different units and commanders executed the scheme of plans intended to develop a functioning RVNAF logistics system.

The passage of time has allowed for a number of other reports, files, and memoranda to be made available for researchers. This study benefited from their availability through a number of sources, to include Texas Tech University's Vietnam Virtual Archive, and the Defense Technical Information Center. Reports from outside the Department of Defense on Vietnamization can provide bona fide evaluations, and insights into how the situation looked in real time. One such report to Congress, "Logistics Aspects of Vietnamization -- 1969-72" gives positive marks on the implementation of the CLIP, but concluded that the RVNAF would require materiel support and advisory training for the foreseeable future.²⁷ Other internal reports can imply how MACV gauged their own progress in their quest to make the RVNAF self-sufficient.

In conclusion, the body of literature available establishes that the US Government and US Military, in coordination with the RVN and RVNAF, had plans to Vietnamize the operational-level logistics activities and tasks. Subordinate commands implemented these plans through various projects and programs, with varying degrees of success. In retrospect, historians have evaluated Vietnamization efforts in general as futile due to general inadequacy and lack of will of the RVNAF. The challenge now will be to find

²⁶ SODR, BG Darrie Richards, 9 June 1969, DTIC, CARL.

²⁷ General Accounting Office, Report to the Congress by the Comptroller General of the United States, "Logistic Aspects of Vietnamization--1969-72," January 31, 1971.

how well this Vietnamization process was implemented with the context of the logistics environment, and the realities facing the RVN.

CHAPTER 2

COMPARATIVE LOGISTICS SYSTEMS, POLICY, AND STRATEGY

In order to evaluate the performance of the operational-level logistics organizations after 1968 it is appropriate to first consider the fundamental logistics challenges found in Vietnam, the logistics environment before and after Tet, and how the US's strategic approach changed with the new US Presidential administration. These factors define what logisticians had to support, and what was available to them. These key starting points will allow for a fair evaluation.

Logistics of an Americanized War

In 1965, MACV's logistics infrastructure had the capacity to support approximately 20,000 personnel. By the end of 1967, the 1st Log Cmd was responsible for supporting approximately 1.2 million troops of different services and nationalities.²⁸ As MACV incurred this influx of fighting forces, it faced a dismal logistics situation. In an August, 1966 "Logistical Structure Conference," the representatives from Headquarters, US Army Vietnam listed five factors bearing on logistical operations in Vietnam: enemy, weather, terrain, lines of communication, and the evolution of the logistical structure.²⁹ While the other factors would fluctuate over the course of the war, the weather and terrain factors remained constant.

²⁸ Sharp and Westmoreland, 253.

²⁹ Conference on the Reorganization and Augmentation of the USARV Logistics Structure (1966), "Logistical Structure Conference, 14-18 August 1966," Headquarters, United States Army Vietnam, 1966, US Army Heritage and Education Center (hereafter cited as USAHEC), A-1 – A-5.

In the movie *Forrest Gump*, the title character portrays the plight of the American infantryman in Vietnam, explaining that “one day it started raining, and it didn’t quit for four months.”³⁰ In the movie Gump wears the patch of the 9th Infantry Division, which served primarily in the southern III and IV Corps Tactical Zones (CTZs).³¹ This region falls south and southwest of the Annamite Mountain chain where, as with the rest of the country, from mid-May to October, the monsoonal climate causes “daily, often torrential, rainshowers [sic] occurring during the afternoon and evening hours.”³² Maintenance on personal weapons systems proved a challenge in these conditions, as the famed debate about the American M-16 rifle’s performance showed.³³ The logisticians struggled with the deleterious effects humidity and precipitation had on clothing, webbing, and electronics. Further, the cloud cover and winds frequently prevented the use of airfields and disrupted ship unloading operations at the many deep and shallow draft ports in the country.³⁴ Nature, however, was not the only source of disruption.

The security situation for the lines of communications in Vietnam was uncommon in American military history. One commander of 1st Log Cmd put the length of the supply line at 10,000 miles stretching from the west coast, and 15,000 miles from the east

³⁰ *Forrest Gump*, directed by Robert Zemeckis (Paramount Pictures, 1994), DVD, (Paramount Pictures, 2001).

³¹ Stanton, 78.

³² Conference on the Reorganization and Augmentation of the USARV Logistics Structure (1966), “Logistical Structure Conference, 14-18 August 1966,” A-2.

³³ See C. J. Chivers, *The Gun* (New York: Simon and Schuster, 2010), 263-336.

³⁴ Conference on the Reorganization and Augmentation of the USARV Logistics Structure (1966), “Logistical Structure Conference, 14-18 August 1966,” A-2.

coast, of the United States, to units in fire support bases in places like Pleiku, Khe Sanh, and Cu Chi.³⁵ The air and sea lines of communications into the country provided safe passage for the duration of the conflict. However, given the recent experiences in the Korean War and World War II, senior planners were accustomed to having a relatively safe rear area, or “Communications Zone” where supplies could move forward from depots and forward support areas to troops on the lines. Such was not the case in Vietnam.³⁶ In fact, MACV was forced to commit significant efforts to keep roads and railways open. In its *Command History* for 1967, MACV reported that in 1966 an average 33.2 percent of the 1,720 miles of roads “considered to be essential for the conduct of military operations” were “secure.” The year 1967 showed improvement after July with an average of 58.6 percent, or 1,008, of the 1,720 critical miles.³⁷

This security situation drove US Army, Vietnam (USARV) to establish a nontraditional logistics network in the country.³⁸ Instead of establishing a communications zone as the Army had done in WWII and the Korean War, the 1st Log Cmd created subordinate USASCs in each of the CTZs in the country (See Figure 2). The

³⁵ Heiser, *A Soldier Supporting Soldiers*, 149.

³⁶ Heiser, *Logistic Support*, 7.

³⁷ General 1967 CMD History Vol 2, 1967, Folder 01, Bud Harton Collection, The Vietnam Center and Archive, Texas Tech University (hereafter cited as TTUVVA). accessed 19 May 2016, <http://www.vietnam.ttu.edu/virtualarchive/items.php?item=168300010722>, 765.

³⁸ US Army, Vietnam was the Army’s Service Component Command under the subunified command, MACV. According to current and past doctrine, the service component commands retain responsibility for supplying their forces in an operational area.

USASCs were located (south to north) in Saigon (III and IV CTZ), Qui Nonh (II CTZ – South), Cam Ranh Bay (III CTZ – North), and Da Nang (I CTZ). In his oral history, Retired Lieutenant General Jean Engler, an early Deputy Commander of USARV, described USASC leaders as “Metropolitan Area Commanders.”³⁹

Each of the USASCs possessed subordinate organizations that performed the operational-level logistics tasks within their area. USASC Qui Nhon’s major subordinate commands, for instance, included the Pleiku and Qui Nhon Sub Area Commands, US Army Depot—Qui Nhon, 5th Transportation Command, 8th Transportation Group, 45th General Support Group, 86th Maintenance Battalion, 184th Ordnance Battalion, 240th Quartermaster Battalion, 593d General Support Group, and other government contractor units and activities.⁴⁰ This allowed each ASC to provide common user logistics to all units within their supported zone with daily sustainment, and to deploy Forward Support Teams in special circumstances. When combat units moved out of their normal area to conduct large-scale operations, the ASCs could provide Provisional Composite Supply and Service Battalions to augment organic support elements.⁴¹

³⁹ Oral History, LTG Jean Engler, interviewed by Phillip Shepard, “Senior Officers Oral History Program: Project 81-3,” Papers of Jean E. Engler, USAHEC, Box 2, 240.

⁴⁰ Stanton, 193.

⁴¹ Heiser, *Logistic Support*, 21-22; Stanton, 201-203. While these Forward Support Teams fall into the tactical level of logistics, it is helpful to understand the measures required to support fighting forces in the Vietnam environment.

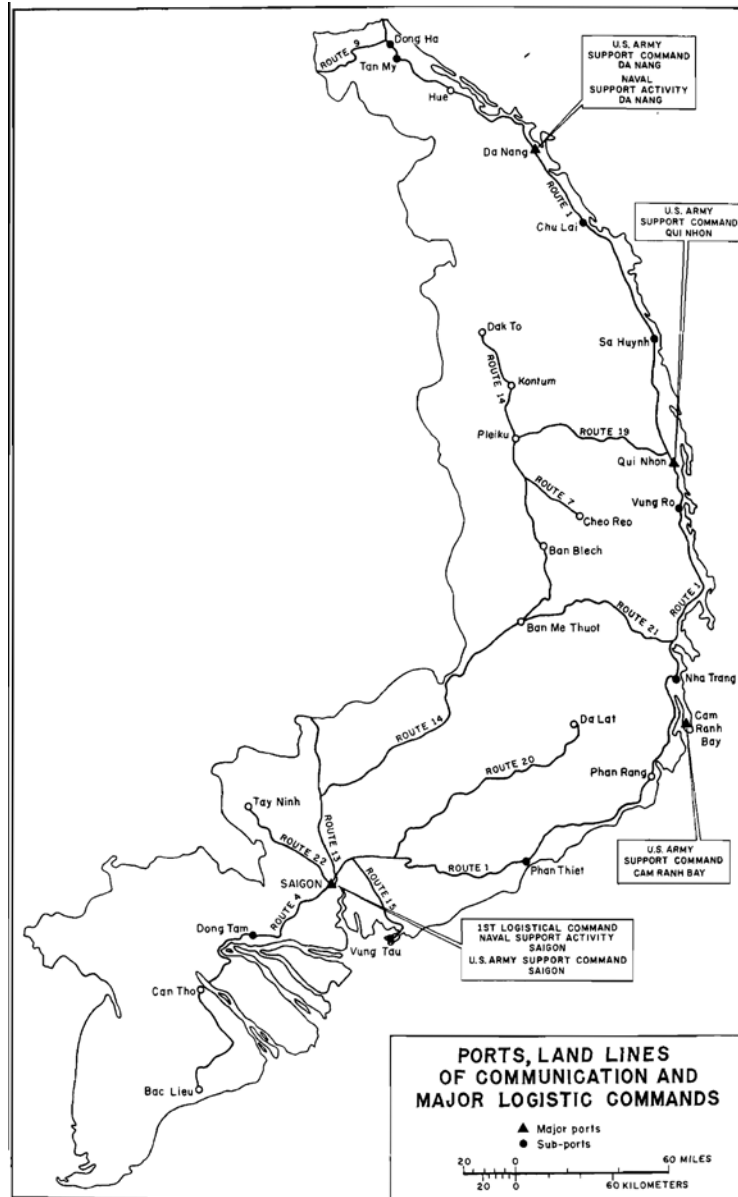


Figure 2. Ports, Land Lines of Communication and Major Logistic Commands

Source: Joseph M. Heiser, Jr., *Logistic Support* (Washington, DC: Department of the Army, 1991), 168.

The missions of the major subordinate units in the USASCs illustrate the meaning of logistics at the operational level. The 45th and 593d General Support Groups, for instance, took on the role of a Sub Area Support Command, conducting day-to-day

activities in the Pleiku and coastal areas of operations, respectively. The 5th Transportation Command had the “Terminal” mission in Qui Nhon, responsible for the transfer of personnel and cargo on and off ships and piers, and for conducting logistics over-the-shore operations. The remaining functional battalion headquarters provided administrative and command oversight of the many separate companies that deployed to Vietnam to provide general support. For instance, the 149th and 160th Maintenance Companies deployed from Ft. Hood, Texas in 1965 and 1967, to provide light and heavy equipment maintenance in the Pleiku and Qui Nhon regions, respectively. They fell under the command of the 86th Maintenance Battalion that deployed from Fort Devens, Massachusetts.⁴² This complexity illustrates why it took well into 1968 for the Americans to establish a coherent system of supply.

The composition and mission sets of the logistical commands changed throughout the war as operational tempo and troop strengths changed. USASC Cam Ranh Bay, for instance, grew significantly in size and importance over the course of the war. It was conceived in the Spring of 1965 to alleviate the great stresses on the single deep water port in Saigon as the US Army poured in supplies and personnel. US Army engineers built the port and warehousing facilities essentially from scratch. In fact, the US shipped a DeLong Pier from South Carolina, through the Panama Canal, to get port activities started. This portable pier was 300-feet long with holes in it for pilings to implant into the seabed of Cam Ranh Bay. Malcom McLean, the entrepreneur behind Sea-Land

⁴² Stanton, 195, 207, 209, 223.

containerization would use these new facilities to jump start his revolutionary concept of standardized shipping containers.⁴³

A year after the first engineer arrived to survey Cam Ranh Bay, the USASC assumed the responsibility to provide logistical support to the southern half of the II CTZ, and to provide general support of common-user logistics for the entire theater. The headquarters personnel authorization changed from 125 in 1966, to 358 in 1968, to 1,300 by 1970. At its zenith, USASC Cam Ranh Bay had assigned to it over 16,000 personnel responsible for supporting over 72,000 troops.⁴⁴

The tactical use of helicopters also demanded that USARV establish a specific headquarters for aviation support. The 34th General Support Group provided maintenance, avionics, and armament support across the country for over 4,000 helicopters at the height of the conflict. While the Headquarters Company had an authorized strength of only about 140 troops, they were heavily augmented by contractors throughout the war. In 1965, Dynalectron had only 34 maintenance contractors. By 1969, three companies had 2,120 maintainers in Vietnam. The growing utility of helicopters demanded dramatic changes to the system that supported them, to include the establishment of a floating aircraft maintenance facility that could move from port to port as the tactical situation required.⁴⁵

⁴³ Levinson, 230-253.

⁴⁴ Stanton, 192.

⁴⁵ Heiser, *Logistic Support*, 134-146; Heiser, *Soldier Supporting Soldiers*, 136-137; Stanton, 195.

This (at times, rather arduous) review of the logistical environment, the support network, and niche support requirements provides two helpful perspectives when considering Vietnamization. First, the support structure, like the intensity and flow of the war, remained complex, dynamic, and at times, ad hoc. The US Army logisticians had to transfer these responsibilities, while breaking the system down during the withdrawal. Second, it illustrates the logistical tail required to support the trimmings of a first-world mechanized military. The sheer weight of the support network strained the RVNAF to extreme levels. The demands of helicopter sustainment alone demanded a special program for Vietnamization efforts.⁴⁶ Some of this strain was due to the RVNAF system, and its dependencies.

RVNAF Logistics System

The RVNAF logistics system and organization possessed fundamental characteristics that made Vietnamizing operational logistics activities difficult. The most critical among these were the nascence of the logistics structure, its built-in dependencies, and the rapid growth of support requirements. These challenges shed light on the existence of the art and science of logistics.

When President Nixon announced his Vietnamization policy in 1969, the core concept of the RVNAF logistics organization was only 12 years old. However, it was truthfully much younger, with major organizational restructuring having only been completed in 1968. The institution originated from the bifurcation of Vietnam and precipitous withdrawal of the French in 1954 after the fall of Dien Bien Phu. The

⁴⁶ Clarke, 441-443.

Vietnamese National Army followed a French model as it was reeling from the loss to the Viet Minh, and a costly evacuation from the newly established North Vietnam. While the French spent some effort in building the army before 1954, it was in their interests that the Vietnamese National Army remained weak as an organization.⁴⁷

The RVNAF, renamed as such by RVN President Ngo Dinh Diem, adopted a US model for logistics in 1957 in the very early stages of the American advisory effort. Their organization consisted of five directorates (Ordnance, Quartermaster, Construction, Medical, and Transportation), a Signal Service, and an Engineer Command. Unlike the American system, this was a Joint RVNAF system, overseen by the office of the Assistant Chief of Staff, J-4. Eventually, the various directorates, and commands fell under a Central Logistics Command (CLC), whose commander served dual-hatted as the Deputy Chief of Staff for Logistics.⁴⁸ The earliest American advisors had a justifiably poor impression of RVNAF logistical support capacity, particularly in their planning and coordination of transportation.⁴⁹ Much had to be done to the organizational structure to remediate this problem, and the individual chosen to be the Chief of Staff for Logistics would be critical in its improvement.

Dong Van Khuyen served as the Deputy Chief of Staff for Logistics in the Joint General Staff (JGS), and as Commander of the CLC from October 1967 until the fall of

⁴⁷ Dean E. Gullion, as quoted in *The Lessons of Vietnam*, ed. W. Scott Thompson and Donaldson D. Frizzell (New York: Crane, Russak and Company, 1977), 241-242.

⁴⁸ Khuyen, 30-34.

⁴⁹ Ronald H. Spector, *Advice and Support: The Early Years* (Washington, DC: US Army Center for Military History, 1985), 299-300.

Saigon. His career represented the great challenges inherent in a military built as quickly as the RVNAF. He received his commission as an Infantry Second Lieutenant in the Vietnam National Army in June 1952 at age 25, before the bifurcation. By 1964, as a 37-year-old major, he commanded the 3rd RVNAF Area Logistical Command responsible for supporting the III and IV CTZs, and portions of the II CTZ, essentially the southern half of South Vietnam. Four years later, he had advanced four ranks to Major General, and held the responsibility for supplying the entire RVNAF.⁵⁰ Khuyen was the most important individual in the improvement and modernization of the RVNAF's logistical framework. He accomplished much in the time he had before his country's defeat, but he lacked the time necessary to garner comprehensive and effective operational-level logistical capability.

⁵⁰ "Fact Sheet," Logistics Directorate: Joint Logistics Advisory Division—re: Impact on ARVN Supply System Based on Potential Force Structure Reduction—Record MACV Part 1, 24 February 1973, Folder 0525, Box 0027, TTUVVA, accessed 27 February 2016, <http://www.vietnam.ttu.edu/virtualarchive/items.php?item=F015800270525>.

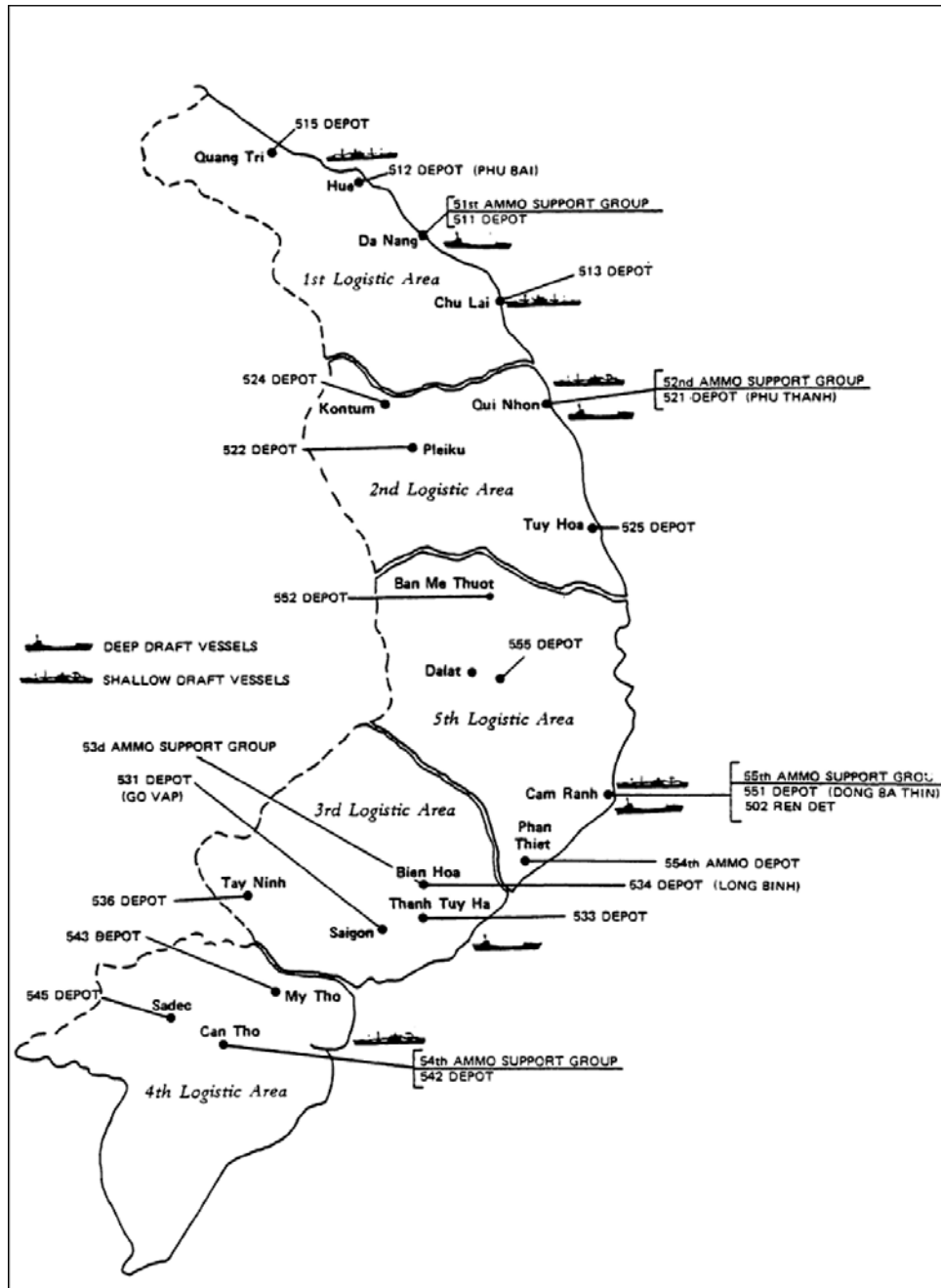


Figure 3. RVNAF Area Logistical Commands

Source: Dong Van Khuyen, *RVNAF Logistics* (Washington, DC: US Army Center of Military History, 1980), 164.

The RVNAF logistical command structure underwent significant changes throughout the 1960s. From 1961-1965, they established Area Logistical Commands (RVNAF ALCs) that evolved to match the USASCs. In addition to having operational control of all logistical elements in their area, though, the RVNAF ALC Commanders acted as staff members for their corresponding Corps, advising the operational commander on logistical matters.⁵¹ This degree of alignment in the command and support structure would seem to lend itself to an effective transition with the Americans. However, political infighting in the upper-echelons of the RVNAF military often resulted in commanders circumventing, or outright ignoring, the chains of command brought on by reforms.⁵² Furthermore, a lack of appreciation on both MACV's and the RVNAF JGS's parts of the importance of these RVNAF ALCs in supporting major combat operations hurt the RVNAF later in the war (See chapter 4).

The RVNAF's reorganization efforts of the late-1960s regarding their logistics framework resulted in a coherent structure, but the impressive organization hid its inherent dependencies. This is not to say that the American advisors were ignorant of the potential problems of dependency. In fact, a logistics advisor from MACV wrote in 1969 that the ARVN system for procurement intentionally allowed the ARVN logistics system to operate independently from the US system. This apparent independence, like the RVNAF logistical structure, hid how much they relied on the American industrial base.⁵³

⁵¹ Khuyen, 37-48.

⁵² Spector, *The Early Years*, 300

⁵³ Carl M. Guelzo, "Managing Military Assistance Support in Vietnam," *Military Review* (January 1969): 33.

The process undertaken by the ARVN to requisition equipment illustrates that while the RVNAF had developed a coherent structure to transport supplies for the sustainment of their forces, those supplies still largely originated in the US. The fundamentals of a Military Assistance, Service-Funded Program required requests to follow two channels, one to approve funding, the second for the actual materiel. Funding requests began at the technical services directorates, who would compute with their MACV advisors their requisitions to fill their growing Tables of Organization. The advisors would then forward their funding requests through the Office of the Assistant Chief of Staff for Military Assistance, MACV, to the Headquarters, US Army Pacific Command. Upon approval for funding, the ARVN technical services sent their requests for the materiel to one of three suppliers—US Army Depot Command in Japan, USA Medical Depot in Ryukyu, and the International Logistics Center in US Army Materiel Command. These major commands then provided the commodities directly to the ARVN customers.⁵⁴ This model shows that the United States provided the strategic Generate and Transport phases for materiel logistics for the RVNAF. Major items such as tracked vehicles, and gun tubes for the RVNAF were generated by factories in the US, then transported by US providers, most likely contractors. As MACV and the US administration faced tough decisions with respect to the US's level of involvement in the later years of the war, obliviousness to the nuances of logistical dependency set the stage for poor policy.

⁵⁴ Guelzo, 33.

The operational level of RVNAF logistics showed varying levels of reliance as the Americans transitioned toward withdrawal. Khuyen provides some positive and negative examples in his review of RVNAF logistics. In terms of theater distribution, he identified that the RVNAF lacked sufficient escort troops, which resulted in combined US-ARVN convoys along theater lines of communications. He provided as an example that the US 8th Transportation Group from the USASC Qui Nhon, and the 2nd Transportation Group from the 2nd RVNAF ALC coordinated their distribution convoys in order to economize escort assets.⁵⁵ While this certainly provided opportunities for shared experiences between the US and ARVN units, one can assume the tendency for dependency, whether in the US provision of armed escorts, or in tonnage capacities.

Khuyen described how this tendency took a clear shape with respect to base depots. Base depot organizations held the responsibility for storing and maintaining supplies. They were categorized by department as listed above (Quartermaster, Signal, etc.), and would provide regional support or general support by commodity for the ARVN. For instance, within the Quartermaster Department, the 10th and 30th Quartermaster Base Depots provided general support for warehousing supplies for the ARVN throughout the country, from their location in Saigon. The 10th Quartermaster Base Depot provided food, water, office supplies, and engineering supplies, while the 30th Base Depot provided petroleum, oil, and lubricants (POL). Below the Base Depot level were Field Depots and special-purpose depots (such as ammunition storage, or airborne items depots) that would be spread throughout the country, as the terrain and the

⁵⁵ Khuyen, 75.

enemy situations dictated.⁵⁶ Each of the technical services departments had echelons of command similar to that of the depot commands.

Khuyen described the unfortunate phenomena of “devoted advisors” with respect to these depots and other services of logistics. He stated that US advisors found ways to ensure their charges received various classes of supply, “especially after 1964, since there appeared to be no budget limitations.”⁵⁷ The model for requisitioning described above resulted in the US strategic providers delivering directly to the Field Depots, bypassing the Base Depots. While this may have expedited the process, surely to the liking of the US advisors, it resulted in neglect of the Base Depots, thereby undermining the long-term viability of the RVNAF operational logistics framework.⁵⁸

The RVNAF’s fundamental approach to supply and maintenance changed as a result of the increasing American influence over the 1960s. Former South Vietnam Prime Minister, and former officer and Chief of the Vietnam Air Force (VNAF) Nguyen Cao Ky relayed in his memoirs how the French way of frugality within the Vietnamese National Army gave way to American profligacy. He argued that the US advisors stayed long enough to change the general workshop attitude within the RVNAF. Anecdotally, he stated that the VNAF aircraft mechanics could very well replace a plane engine, but did

⁵⁶ Ibid., 43-44. Khuyen’s narrative and his associated map do not agree on the designation of one unit. His narrative says the 30th Base Depot for Class III (POL), while the map reflects the 50th Base Depot as provided this commodity.

⁵⁷ Khuyen, 97.

⁵⁸ Ibid., 97-98.

not know how to fix it when no engines could be procured.⁵⁹ This fundamental mentality exemplified the shortsightedness in training the RVNAF, and an assumption that the pipeline of funding and parts from the US would never run dry.

It appears that some MACV advisors recognized the RVNAF's tendency toward American extravagance and attempted to aid in changing the culture. In a report on ordnance supply management from December 1971, an American advisor reported that the RVNAF 20th Ordnance Storage Base Depot had instituted three programs to enhance supply discipline. The 20th Ordnance Storage Base Depot provided general ordnance support from its location in Saigon.⁶⁰ While it fell within the category that Khuyen described as being underdeveloped due to the RVNAF ALC/USASC organization, it successfully provided repair parts in support of Operation Lam Son 719 in Laos (discussed in chapter 4). They began withholding repair parts for faults associated with parts that could be returned for salvage. They established a procedure to challenge customer requisitions. Most importantly, they instituted a program to issue repair kits instead of replacement parts for items that could be replaced in country.⁶¹ While this suggests that some advisors made an effort to adjust the mindset of the RVNAF and make them more self-reliant, those efforts came too late.

⁵⁹ Nguyen Cao Ky, *How We Lost the Vietnam War* (New York: Stein and Day, 1976), 174-175, 198-201.

⁶⁰ Khuyen, 41-42.

⁶¹ Letter and Inclosures from Colonel Worley, Logistics-re: Historical Interest 'Key Subjects'-Record of MACV Part 1, 6 February 1972, Folder 1056, Box 0025, TTUVVA, accessed 19 May 2016, <http://www.vietnam.ttu.edu/virtualarchive/items.php?item=F015800251056>.

The RVNAF logistics network already experienced strain due to the organizational and cultural factors described above, but the events after 1968 further taxed the system. After spending a decade adjusting from a French model to an American model, and forming RVNAF ALCs to match the USASCs, the RVNAF logisticians faced the rapid expansion in men and materiel in its military. This came about due to a crucial series of events that kicked off in January 1968.

The Strategic Environment

Key factors explain the strategic environment in which logisticians began to transition their duties to the RVNAF. They include the results of the general offensive of the NVA and Viet Cong (VC) on the Tet holiday in January 1968, the introduction of the Vietnamization Policy, and the plans for withdrawal under the Nixon Administration's concept of "Peace with Honor." These factors complete the context necessary to appreciate the efforts at Vietnamization undertaken by the Americans, and to evaluate their performance in 1971.

Some aspects of the Tet Offensive and its results contextualize the environment in which logisticians attempted to Vietnamize operational logistics. The war showed the scale of a general offensive that the NVA could prepare for, coordinate, and sustain in multiple regions of South Vietnam; and the strategic surprise achieved set the Americans on a path of rapid withdrawal from a conflict that was becoming increasingly unpopular at home. The logistics response and improvisation required to quell the offensive foretold the demands that would likely be placed on the RVNAF after an American withdrawal, assuming that the NVA would continue to fight. The effects of the strategic surprise on

the home front also doomed the long-term plans made by the Americans and South Vietnamese regarding residual support.

The Tet Offensive marked the general uprising hoped for by the insurgents in the South. Hanoi approved the plan by the famous NVA Commander-in-Chief General Vo Nguyen Giap in July of 1967 and authorized the significant preparations for the attacks. The complicated and costly plan consisted of three parts. First, the NVA initiated large scale attacks in peripheral areas of the country. These were meant to draw American attention, and in turn, their larger forces away from the cities. The NVA's successful encirclement of Khe Sanh achieved this in spades. Next, the VC would thrust into the cities and begin coordinating the general uprising. Public assassinations and demonstrations of force were expected to dissuade the population from taking up a defense, and the ARVN were expected to dissolve under the pressure. Finally, the plan called for rested and refitted NVA forces, or those kept in reserve, to join the general offensive to wipe out any remaining centers of resistance.⁶²

After recovering from the initial shock, MACV and the ARVN responded swiftly and effectively to the Tet Offensive. The military arm of the VC as a viable organization ceased to exist when the regular soldiers and the territorial forces (much like a militia) responded with surprising effectiveness. By April, major fighting was quelled but for a few outliers, such as the fighting around the encircled Marines in Khe Sanh, and in the

⁶² Palmer, 175-177; Herring, 226-229. Recent scholarship on the Tet Offensive has revealed that while Giap planned the offensive, he was not in favor of this shift to general warfare. Support for the offensive came most from Le Duan, the secretary-general of the North Vietnamese Lao Dong Party. See James H. Willbanks, *The Tet Offensive: A Concise History* (New York: Columbia University Press, 2007), 8-9.

city of Hue. The brutality of the VC behavior in some villages had the opposite of their desired effect. It pushed the people to the central government in many regions. General Westmoreland was confident in the way that the international coalition and the South Vietnamese responded to the crisis.⁶³ The response, however, did not come without some heavy lifting.

The Operations Division of the 1st Log Cmd reported in their April 1968 ORLL some of the senior American logistics unit's reactions to the NVA and VC's offensive. They had to repair petroleum pipelines that have been disrupted by enemy explosives. The successful, periodic interdiction by NVA and VC forces of US lines of communications throughout the country forced the Americans to conduct emergency aerial resupply. The ensuing efforts to sustain the Marines isolated in Khe Sanh set the record for tonnage delivered in a month by airdrop in two consecutive months. Throughout the country, the intensity of combat forced USASCs to deploy seven Forward Support Areas (FSAs) in support of operations.⁶⁴ Reacting to such an offensive puts a tremendous strain on a belligerent's operational logistical framework.

The GTSR cycle helps in understanding the importance of the few examples provided above. On the strategic level, the United States had generated enough materiel and transported it into theater to have on hand in depots emergency stocks of supply. At the operational level, they possessed the flexibility to adjust from one theater distribution

⁶³ Willbanks, *The Tet Offensive*, 80-81; Lewis Sorley, *Vietnam Chronicles: The Abrams Tapes 1968-1972* (Lubbock, TX: Texas Tech University Press, 2004), 572-573.

⁶⁴ Operations Report on Lessons Learned (ORLL), 1st Logistical Command (1st Log Cmd), quarterly period ending April 1968, DTIC, CARL, 4, 18-19, 74.

mode (by ground) to an alternate one (by air), in order to sustain forces cut off in the USASC-Da Nang's area of operations, let alone the many other forces throughout the country. Their sustainment further relied on their capacity to generate supporting organizations that could assist in tactical sustainment through the FSAs. This depiction of the operational GTSR cycle illustrates the art of logistics that the Americans failed to transition to the RVNAF in the years to follow.

While MACV's and the RVNAF's logistical and combat forces throughout the country demonstrated their flexibility and capability in responding to the attacks, the experience left an ominous air of what would be expected if such an offensive should happen again. They could prevent such offensives by initiating spoiling attacks in years to come, but the scale of such attacks demanded a robust logistical network, and strong planning and management. The strategic effect of the Tet Offensive would present a significant challenge to the US and South Vietnamese militaries. Diminishing support for the war meant the Americans had to begin transferring a larger burden of the fight to their partners faster than expected.

The Tet Offensive set the stage for what proved to be a tumultuous year for the United States with societal, political, and military implications. US President Lyndon Johnson announced that he would not seek reelection so he could devote his full efforts to his domestic and foreign policies. Civil rights activist Martin Luther King, Jr. was assassinated in April sparking race riots throughout the country. Robert F. Kennedy was assassinated in June while on the campaign trail for the Democratic nomination. These and other factors paved the way for Republican candidate Richard Nixon to win the election after a campaign built on ending the war, and ending the violence at home.

Upon assuming office, Nixon attempted to gain full awareness of the situation in Vietnam with his National Security Study Memorandum 1, consisting of a list of 29 major questions covering such things as the enemy situation, the state of the RVNAF, and the pacification effort. MACV, the Central Intelligence Agency, the US State Department, and other organizations received the questionnaire and answered in kind. The responses were fairly disparate with optimistic and pessimistic perspectives. Nixon's Secretary of Defense Melvin Laird anticipated that the President's honeymoon period with the American people would be short, and recommended they come up with a way to exit the country quickly.⁶⁵

President Nixon used the term "Vietnamization" to name his policy to bring "peace with honor" and withdraw American troops from the war. The name was both controversial and vague. The controversy revolved around the idea that calling it "Vietnamization" denigrated the great sacrifices that the Vietnamese had already suffered in the years since the bifurcation of the country.⁶⁶ Nguyen Cao Ky reflected that the term thankfully improved upon a previous idea to call it "de-Americanizing" the war effort.⁶⁷

The vagaries revolved around what exactly the term Vietnamization meant, and what exactly it said about the future role for America in the region. Senator Al Gore, Sr., a member of the Senate Foreign Relations Committee, expressed frustration with the policy's intricacies through his questioning of Brigadier General Wallace Clement,

⁶⁵ Willbanks, *Abandoning Vietnam*, 10-13.

⁶⁶ *Ibid.*, 40-41.

⁶⁷ Ky, 172-173.

Director of MACV Training Directorate, in March 1970. Clement's testimony is helpful in two respects for understanding the efficacy MACV's transition of operational logistics functions. First, he provided a scripted definition of Vietnamization, stating

Vietnamization is the process by which the United States assists the Government of Vietnam to assume increasing responsibility for all aspects of the war and all functions inherent in self-government. It means building a stronger government with improved economy and strengthening the military internal security forces sufficient to permit the United States to reduce its military and civilian presence in Vietnam without unacceptable risks to the objectives of the United States in the security of the free world and Government of Vietnam forces. Vietnamization refers only to the assumption by Vietnamese of that portion of the war effort carried on by the United States. It does not refer to the total war effort in which the South Vietnamese themselves have carried such a large and heavy burden for some years.⁶⁸

The final sentence shows how the US Army recognized the sensitivity around the term.

Secondly, in response to Senator Gore's line of questioning regarding definitions, he alluded to MACV's conception of a residual force to provide support to the RVNAF. Clement testified that MACV had ongoing on-the-job training efforts with respect to logistics (See chapter 3), but that RVNAF required continued assistance because of how rapidly the organization grew. He stated, "The RVNAF logistical organization and system are presently capable of reasonably satisfactory logistical support to operating elements. By necessity, there is a strong advisory effort in this area which will continue for some time."⁶⁹ He specified the type of support forces as "primarily quartermaster,

⁶⁸ BG Wallace L. Clement, testimony before the US Senate Foreign Relations Committee, "Vietnam: Policy and Prospects, 1970: US Military Advisory Program, 3 March, 1970, Folder 10, Box 42, Douglas Pike Collection, Unit 03-US Economy and US Mission (Saigon), TTUVVA, accessed 19 May 2016, <http://www.vietnam.ttu.edu/virtualarchive/items.php?item=2274210006>, 457.

⁶⁹ Ibid., 450.

transportation, engineer, signal, aviation forces . . . technical, administrative, and logistical people, et cetera, that support the combat effort.”⁷⁰ This concept informs the way that MACV and its units approached the Vietnamization of operational logistics. It is critical to note that, as late as March 1970, MACV and the RVNAF believed that a residual force would continue to provide advice and support in the realm of logistics after the final withdrawal of American combat forces. While the timelines for withdrawal were oppressive, logistical advisors could assume they still had years to help the RVNAF achieve greater self-sufficiency in operational level tasks.

The final critical component of the strategic context that relates to understanding how well the US Vietnamized logistics is the plans that governed the withdrawal of troops (Operation Keystone), and that transferred US equipment to the RVNAF (Operation Enhance and Enhance Plus). The demands associated with these operations diminished the efforts of the OJT program, and reduced the integration between the USASCs and the RVNAF ALCs.

Operation Keystone put into practice President Nixon’s promises on the campaign trail to withdraw the US from the Vietnam War. It began in the summer of 1969 with the first of a series of incremental troop reductions meant to be based on conditions on the battlefield. The 9th Division was first to leave under Operation Keystone Eagle that reduced troops strength by 25,000 men. This constituted the first time that the US Army would withdraw from a theater of operations while actively engaged in combat. While subsequent increments, named for birds (i.e. Keystone Cardinal, Keystone Oriole, etc)

⁷⁰ Ibid., 456.

were supposed to be based on conditions, the withdrawal timeline took on a life of its own and became an unrelenting burden on the logisticians.⁷¹

Two critical factors related to the withdrawal limited the USASC elements from influencing the development of RVNAF operational logistics from 1969-71. First, the scale of the task consumed the attention of the logisticians, even those willing to commit time to developing their counterparts. Heiser estimated, “Three times as much effort is required to process materiel for retrograde as to receive incoming materiel and accomplish issue.”⁷² This was exacerbated by the fact that the soldiers responsible for turning in the equipment were not redeploying with the headquarters that was heading home. Thus, they lacked the motivation to ensure the equipment was in good shape.⁷³ The USASCs held the responsibility for receiving, cleaning, and preparing all of this equipment for transfer to the US. No small task for an Army approaching a decade’s worth of service in a theater.

The demands surrounding the withdrawal of American troops forecasted the challenges in store in the year following the scope of this study. Like with Operation Keystone, the USASCs felt burdened by Operations Enhance and Enhance Plus. Operation Enhance provided the guidance for transferring equipment from the US military to the RVNAF in early 1972 as part of a comprehensive improvement and modernization plan. When secret talks between US and North Vietnam political leaders

⁷¹ Willbanks, *Abandoning Vietnam*, 16; Heiser, *Logistic Support*, 67-69.

⁷² Heiser, *Logistic Support*, 71.

⁷³ *Ibid.*, 68.

began to chart a path for peace in late 1972, Abrams realized the need to surge significant amounts of equipment to the RVNAF to avoid any limitations imposed by the political agreement.⁷⁴ The USASCs also assumed the responsibility to prepare this equipment for transfer to the RVNAF, further limiting their ability to contribute to the RVNAF's improvement in the closing years.

Conclusion

An understanding of how well MACV Vietnamized operational-level logistics demands an understanding of the context in which the key players operated. The comparison of the US and RVNAF logistics systems shows that the similarities of the theater network presented opportunities for collaboration, but the nascence of the RVNAF system limited the level of complexity that they could achieve.

The strategic context showed that the aftermath of Tet and the arrival of a new US Presidential Administration affected fundamentally on what the operational logisticians could focus. The requirements for theater logistics units to pack up and send home US equipment, and transfer to the RVNAF quality pieces of equipment, ultimately inhibited their ability to support efforts to improve RVNAF self-sufficiency.

⁷⁴ Willbanks, *Abandoning Vietnam*, 173-175.

CHAPTER 3

CLIP, CLOP, AND BUDDIES

This chapter constitutes the main body of work that informs how MACV approached the Vietnamization of operational level logistics. To understand the effectiveness, one must connect the dots from the policy (Vietnamization), to the plan (Combined Strategic Objectives Plan and the Logistics Master Plan), to activity on the ground. The previous chapter described how MACV and General Creighton Abrams began putting the Vietnamization policy into operation, and some of the limitations imposed by a withdrawal mindset on the part of the Secretary of Defense. This resulted in a poorly constructed plan on the part of MACV that focused far too much on the science of logistics, but failed to address the art. Despite MACV's shortcomings, Project Buddy, an OJT training program designed by the 1st Log Cmd that preceded the formal plans by MACV, showed great promise, but came too late to reach a tipping point for the RVNAF logistics infrastructure. The partnerships and training by the USASCs varied in quality over the concluding years of American involvement, and reflected the influence of leadership in this increasingly important task.

While MACV planned and implemented the earliest phases of American troop withdrawals, their attention turned to the improvement and modernization of the RVNAF. This effort would eventually be reflected in the CRIMP, which reflected Secretary of Defense Laird's interests in the accelerated withdrawal from the country, and received his approval in June 1970. The plan stated that by the end of 1973, the RVNAF would consist of 1.1 million men capable of conducting national defense and territorial pacification. The plan assumed that the RVNAF would assume defense of

South Vietnam in two phases; first, ground combat; then air, naval, and logistical operations.⁷⁵ Despite this approval date, units throughout the country already began efforts in support of the initiative.

Concurrent with the planning and approval of CRIMP, MACV developed and combined plans for Vietnamizing the logistical factors of the war into a Logistics Master Plan. This plan included eight main elements: (1) The Combined Logistics Offensive Plan (CLOP), (2) The Country Logistics Improvement Plan (CLIP), (3) The Base Depot Upgrade Plan, (4) The Plans for Turnover of Facilities and Functions Program, (5) Budgeting and Funding Concept Improvement Program, (6) The Administrative and Direct Support Logistical Company Study, (7) The South Vietnamese Armed Forces Automated Materiel Management System, and (8) The OJT Program “Project Buddy.”⁷⁶ This collection of plans shows that MACV did not ignore the importance of improving RVNAF logistics, but the question is how well they were executed.

The following pages will address three of these programs in detail, the CLOP, CLIP, and Project Buddy. Since the CLOP and CLIP are plans that address all aspects of the RVNAF logistics infrastructure, they are the best tools for determining MACV’s approach. Project Buddy represents a clear example of pairing off between RVNAF and MACV logisticians. In order to establish continuity in drawing the line from the

⁷⁵ Cosmas, *The Years of Withdrawal*, 270.

⁷⁶ Heiser, *Logistic Support*, 239-240. While Heiser refers to a “Logistics Master Plan” in his Vietnam Studies series book, the Logistics Offensive Coordination Center referred to it in their November 1969 Newsletter as the “Master Plan for RVNAF Logistics Self Sufficiency.” Various studies and programs aligned between these two documents, but were numbered differently.

Vietnamization policy to activity on the ground, the descriptions will follow the order as they are listed. It should be noted, however, that elements in the 1st Log Cmd were piloting Project Buddy initiatives prior to the publication of the CLOP and CLIP, thanks to the prescience and command influence of some key logistical leaders.

The Combined Logistics Offensive Plan—CLOP

MACV the CLOP as a combined plan with the RVNAF in 1969, but then transferred to the RVNAF as an annual plan to improve logistics efficiency. The CLOP deserves some detailed attention because it seems to be the flagship of MACV's formal efforts to enhance the RVNAF's logistical capabilities. While the plan effectively formalized how the RVNAF and their advisors could collect and approach problems, the approach to the problems articulated in the plan left much to be desired.

General Abrams signed the CLOP into effect on 22 July 1969, stating "The United States Government has invested extensively in improving the Combat Capability of RVNAF. We must now concentrate our efforts on improving RVNAF logistics support to complement the increased combat capability."⁷⁷ The plan identified five objectives: (1) Improve RVNAF logistics effectiveness; (2) Establish RVNAF standards of logistics effectiveness; (3) Provide techniques for measuring logistics effectiveness and progress in logistic systems improvement; (4) Improve effectiveness of logistics advisory organizations and personnel; and (5) Instill a positive and aggressive attitude in personnel

⁷⁷ MACV Plan, Logistics: Logistics Advisory Directorate - Combined Logistics Offensive - Record of MACV Part 1, 22 July 1969, Folder 0423, Box 0026, TTUVVA, accessed 17 May 2016, <http://www.vietnam.ttu.edu/virtualarchive/items.php?item=F015800260423>, cover letter. Hereafter referenced as "CLOP."

at all echelons, of RVNAF and MACV activities, toward rapid and extensive logistical support improvements.⁷⁸ The plan's objectives were far-reaching, indeed, and yet the ambiguous nature of its details caused confusion later.

Despite some ambiguities, the CLOP possessed great potential by establishing a combined way of approaching logistics problems. The plan ordered the establishment of a Combined Logistics Offensive Coordinating Committee composed of senior officers from both the RVNAF and MACV to “administer, evaluate, and provide continuing direction to the ‘Logistics Offensive.’”⁷⁹ In accordance with the plan, the RVNAF established the CLC Logistics Offensive Coordination Center (LOCC), while MACVJ4 established the MACV LOCC. Among their tasks, the MACV LOCC was expected to synchronize advisory efforts, publish a logistics advisors guide, and determine special technical training requirements desired by the RVNAF. The advisory effort was expected to grow through the development of Mobile Logistics Advisory Teams and by identifying specific, qualified officers from the United States to deploy in support of this effort. The CLC LOCC was meant to serve as the “focal point for RVNAF logistics performance information and evaluation.”⁸⁰ The order clearly sought to establish a system that included both parties.

The CLOP emphasized in numerous places the expectation of senior-level interest and involvement in the program. It directed the RVNAF Deputy Chief of Staff for

⁷⁸ CLOP, 5-6.

⁷⁹ Ibid., 6.

⁸⁰ Ibid., 6-13, “focal point,” 12.

Logistics (then-BG Dong Van Khuyen) and the MACVJ4 (MG Raymond C. Conroy) to participate in the committee meetings. Both were expected to appoint senior officers to the LOCCs to promulgate problems identified within the system, and the efforts being made to fix them. To do so, the LOCC was expected to publish “‘Logistics Newsletters’ to inform commanders and their staffs of pertinent trends, progress, and problems concerning logistics effectiveness and the ‘Logistics Offensive.’” In his cover letter, Abrams wrote, “To achieve the desired results it is necessary that commanders and advisors at all echelons demonstrate a positive and determined attitude toward logistics improvement . . . [and that] aggressive execution and first-hand knowledge of the plan by US advisors” would assure the success of the plan.⁸¹ This structure and emphasis seemed to provide a pathway for RVNAF improvement. Unfortunately, the 1st Log Cmd was not mentioned in the plan. This evidences a myopic view on the part of MACV about who should take part in the advisory roles. This is discussed further below.

Apart from establishing this bureaucracy, the CLOP further detailed the problems to be improved within the RVNAF logistics system. The MACV staff work is impressive. The planners collected problem sheets from field advisory teams that defined a specific logistics issues within the ARVN (73), Vietnamese Navy (VNN) (21), and VNAF (27), that amounted to 121 service problems. The staff then identified common problems finding 52 between at least two of the services, nine of which were common across all three services. They further identified the causes of the problems from a list of ten choices, then identified the command-level affected. Each problem then had a problem

⁸¹ CLOP, 6-13, “Newsletter,” 8, Abrams, cover.

sheet that elaborated on the issue, offered a solution, and assigned an action agency with a deadline (See Appendix A).⁸²

For instance, the previous chapter discussed base depot troubles that afflicted the RVNAF. Aspects of this issue were reflected in ARVN problem number 65, which stated that “required maintenance capacity at base depots is not known.” The planners identified four causes: Command Emphasis at the JGS-CLC level; Programs/Systems/Procedures, Inspections, and Advisors at the Technical Service level. The problem sheet elaborated that the issue related to the deterioration of buildings at the 80th Ordnance Rebuild Base Depot (the same from the previous chapter), and a backlog of items at the 40th Engineer Base Depot. The actions to address these issues lacked inspiration. “High level approval for construction and maintenance projects for the 80th Ordnance Rebuild Base Depot,” and “JGS support recommendations of master planning group soon to be forthcoming from 40th Engineer Base Depot and expand program to all maintenance facilities,” to be completed on 1 October 1969, and 1 December 1969, respectively.⁸³ While this seems to address the problem on paper, analysis of the elaborated problem (albeit with the benefit of hindsight), and the associated “fixes,” indicates a shallow appreciation for the bigger picture problems within the RVNAF network.

ARVN problem 63 provides another example of how the CLOP failed to address deep seated issues in the system. Problem 63, “Direct support units do not have enough maintenance float assets,” included anecdotal evidence that two M-41A3 tanks in a

⁸² CLOP, i-iv.

⁸³ Ibid., A-1-7, A-1-82.

RVNAF Armored Cavalry Regiment had been unserviceable for over seven months for lack of parts, despite the fact that the needed parts were available. The proposed action stated “prepare a directive which will place emphasis on ‘moving forward’ maintenance float stockage from base depot to [Direct Support Units].”⁸⁴

Both of these examples from the CLOP indicate the difficulty associated with attempting to comprehensively improve a large military’s logistical framework. In an effort to match solutions to problems within a short time, the solutions failed to address deep-seated issues in the framework. One can assume that an overriding sense of urgency toward withdrawal induced the approach, with the resulting actions easily being reported complete. In the second case, for instance, the preparation of a directive could satisfy the task, though it did not address the possibility that the maintenance system was broken. The MACJ4 recognized these trends.

Major General (MG) Raymond C. Conroy served as the MACV’s Assistant Chief of Staff for Logistics, J-4, from March 1969 to October 1970. He was a transportation officer who served in the Middle East in World War II, and in Korea. Prior to serving as the MACVJ4, Conroy commanded the Military Traffic Management Command (Western Area) out of Oakland, CA, and as the Department of the Army Assistant Chief of Staff for Logistics for Plans and Doctrine. He would go on to retire as the Chief of Staff for US Army Europe.⁸⁵ His vast experience helped him recognize that the plan seemed to be distilled to half-baked efforts.

⁸⁴ CLOP, A-1-79.

⁸⁵ Oral History, Raymond C. Conroy, interviewed by Debbie B. Bazemore, 4 December 1985, accessed from US Army Transportation Corps History, General Officer

For all that the CLOP built it up, the Combined RVNAF/MACV Coordinating Committee seems only to have met two times.⁸⁶ That is not to say that the LOCC was not meeting and moving forward on the actions directed by the CLOP. In fact, the first “Logistics Newsletter” signed on 9 September 1969, recorded that attendees of a recent joint MACV-RVNAF logistics offensive meeting approved an extension to the deadlines of the CLOP due to the late publication of the RVNAF version of the CLOP.⁸⁷

Clearly, the LOCCs made headway in synchronizing efforts and collecting reports, but it is questionable how deeply they were affecting the system. While they were certainly doing great work, it is shocking that in the November 1969 committee meeting, only four months after the order was published in English, the LOCCs reported that 101 of the 121 problems were “closed out”! MG Conroy was skeptical, as reflected in the newsletter, stating “MG Conroy emphasized during his closing remarks that completion of actions as reported on paper was one thing but the true test of success was actual improvement in logistics which must be measured and validated.” The November

Interviews, accessed 20 May 2016, <http://www.transportation.army.mil/history/GOinterviews.html>.

⁸⁶ The author based this assumption on what is available from the “Record of MACV.” It is possible that the Coordinating Committee met more times, but doubtful given the language of the newsletter dated 6 March 1970. The LOCC produced three of the prescribed “Logistics Offensive Newsletters” as minutes for the Committee meetings. The first newsletter, signed by the MACVJ4, MG Conroy, on 9 September 1969 recorded that the MACV LOCC had been established, but they were waiting on the RVNAF to approve the translation of the RVNAF’s list of problems. This addendum to the CLOP is thus far unavailable.

⁸⁷ CLOP, MG Raymond Conroy, “Logistics Offensive Newsletter,” 9 September 1969. The first Logistics Offensive Newsletter is included in the CLOP file in the Record of MACV.

newsletter acknowledged, however, that the CLOP was conceptually short range, and recorded that the MACV LOCC maintained statuses on all of the elements of the Master Plan for RVNAF Logistics Self Sufficiency.⁸⁸

The second, and seemingly final, meeting of the Combined Logistics Coordination Committee included an update on the CLOP problems, and then a discussion of the Logistics Offensive II. The newsletter from the February 27 meeting emphasized that this new program was initiated by the RVNAF and, while advisory personnel were expected to advise and assist in the preparation of this sequel, MACV was to insure that it was a fundamentally Vietnamese effort. The RVNAF timeline for publishing the Logistics Offensive II gave only a few months to collect and study inputs for the plan, and submit them through multiple agencies. They expected to publish the plan by June 1970.⁸⁹ Though the MACV record shows no such publication, it appears that the RVNAF planned to reissue the plan annually with subsequent enumeration. General Dong Van Khuyen did not refer to the subsequent CLOPs in his monograph.

The CLOP represents an excellent effort at a combined effort on the part of MACV and the RVNAF to address the improvement and modernization of the RVNAF logistics systems. The plan resulted in the establishment of a coordination center that

⁸⁸ Letter from Major General Conroy and Inclosures, Logistics - re: Logistics Offensive Newsletter - Record of MACV Part 1, 22 November 1969, Folder 0508, Box 0025, TTUVVA, accessed 17 May 2016, <http://www.vietnam.ttu.edu/virtualarchive/items.php?item=F015800250508>.

⁸⁹ Letter from Major General Conroy and Inclosure, Logistics - re: Logistics Offensive Newsletter - Record of MACV Part 1, 06 March 1970, Folder 0515, Box 0025, TTUVVA, accessed 17 May 2016, <http://www.vietnam.ttu.edu/virtualarchive/items.php?item=F015800250515>.

produced results. Nonetheless, retrospect affords the ability to see shortcomings. The honest efforts to improve comprehensively the RVNAF system seems to have been reduced to closing out tasks by writing directives.⁹⁰ Furthermore, the evidence shows that MACV missed an opportunity to involve elements other than advisors. Specifically, neither the 1st Log Cmd, nor any of its USASCs seem to have been represented on the Logistics Offensive Coordination Committee. Lieutenant General (LTG) Heiser's sense of frustration surrounding this plan for oversight will be discussed below. While this part of the Logistics Master Plan possessed shortcomings and successes, it was augmented and complemented by other plans that further assisted the RVNAF toward self-sufficiency.

Country Logistics Improvement Program—CLIP

The CLOP was not the only plan produced by MG Conroy's Office of the Assistant Chief of Staff for Logistics, MACV. While the CLOP represented a short range, combined military (USMACV-RVNAF) effort that transferred to primary direction under the RVNAF, the CLIP represented a long range, joint, interagency, and multinational approach to improving the RVNAF logistics systems directed by the MACVJ4. While similar to the CLOP in how it identified problems and directed action for improvement, the CLIP was much more comprehensive, with a large section detailing the RVNAF Logistics Organization, and an estimate of the logistics situation across all of the Vietnamese military services. Taken together, however, the CLOP and CLIP seem to lack

⁹⁰ See "Logistics Offensive Newsletter," 6 March 1970, Enclosure 1 "Remarks by ACofS, J4, MACV."

synchronization and leave one pondering how advisors and trainers could possibly keep track of the numerous systems to report improvement.

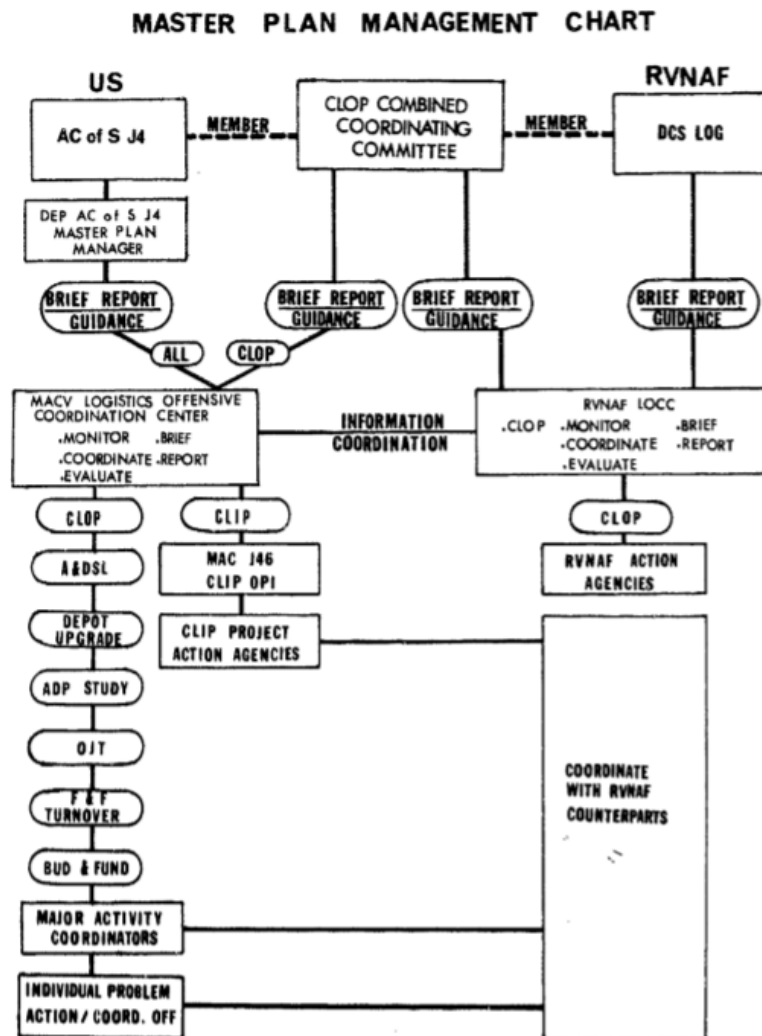


Figure 4. Logistics Master Plan Management Chart

Source: United States Military Assistance Command, Vietnam, *Command History 1969: Volume II* (San Francisco: US Army Center for Military History, 1969), VI-116.

How the CLIP and the CLOP could be so desynchronized is hard to discern since they both emanated from the same office, and were signed within ten days of each other.⁹¹ Neither plan references the other in their text, although, as mentioned previously, the Logistics Offensive minutes mentioned the CLIP in its annex as a portion of the Master Logistics Plan. The Master Plan Management Chart provided in the MACV *Command History 1969: Volume II* falls short of clarifying how the tracking system should truly work. In fact, the reporting diagram does not match the commentary in the disparate plans. While the CLOP assigned tasks and created a reporting mechanism through the LOCCs, the CLIP established a reporting process through the larger RVNAF Improvement and Modernization Management System (RIMMS).⁹² In the larger sense, MACV planners refer to both the CLIP and CLOP as two of its five annual plans, in the overarching Combined Strategic Objectives Plan, which ostensibly directed all of the US military efforts in Vietnam.⁹³ It is confusing how the CLIP and CLOP fell within the bureaucratic hierarchy of plans. Both were parts of the Logistics Master Plan, but are

⁹¹ General Abrams signed the letter of promulgation for the CLOP on 22 July, 1969, while his Assistant Adjutant General, Major J. F. Harris signed “for the commander” on 31 July, 1969.

⁹² Report, Logistics - Country Logistics Improvement Plan (CLIP) - Record of MACV Part 1, 31 July 1969, Folder 0707, Box 0025, TTUVVA, accessed 20 May 2016, <http://www.vietnam.ttu.edu/virtualarchive/items.php?item=F015800250707>, 3-9. Hereafter referenced as CLIP.

⁹³ “Updated US/RVN (US MACV/RVNJGS) Combined Strategic Objectives Plan,” 1971, Folder 01, Box 19, Douglas Pike Collection: Unit 01 - Assessment and Strategy, TTUVVA, accessed 19 May 2016, <http://www.vietnam.ttu.edu/virtualarchive/items.php?item=2121901001>, 13-3 - 13-4. Hereafter referenced as CSOP. The other plans were the Combined Campaign Plan, the National Community Defense and Local Development Plan, and the RVNAF/MACV Communications Offensive Plan.

listed individually in MACV's Combined Strategic Objectives Plan. Even though the CLIP represented long-term objectives, it fell below the CLOP coordinating framework.

They also differed in their distribution, which may explain some disparities. While the CLOP included recipients within MACV and the RVNAF, the CLIP's distribution reached much further, to include a number of offices in Pacific Command, the Counterinsurgency School in Maxwell Air Force Base, and the US Command and General Staff College. This, along with references to formatting in accordance with the Commander-in-Chief Pacific Command Military Assistance Manual indicate that this plan was made for wider consumption.⁹⁴ Regardless of how the formatting matched audiences, the CLIP did project deadlines further in the future, and seemed to have a wider scope on problems in the RVNAF system.

The plan's authors divided their product into three sections. The first section laid out the purpose, scope, policy, and implementation of the plan. The policy prioritized command emphasis, logistics training, and logistics organization as critical for the RVNAF's achievement of self-sufficiency, and assigned the MACVJ4 as the plan's monitor. The agencies tasked within the order were to submit two quarterly reports to the MACVJ46 on each of their assigned tasks, with the third and fourth quarter reports combined into an annual report.⁹⁵ The MACV historical records do not include any of these reports.

⁹⁴ CLIP, cover letter, 1-2 - 1-3. In the general section, MACV planners stated that Country Logistics Improvement Plans normally address improvement throughout a country, to include economic reform, industry, etc. They qualify that this plan addressed only the RVNAF logistical capabilities.

⁹⁵ Ibid., 1-1 - 1-3.

The second section described the RVNAF Logistics organization in great detail, and presented estimates of the logistics situations of each service's logistical capability. The logistical organization subsection delves into the RVN's GTSR cycle by explaining the roles of each branch's technical services at the tactical, operational, and strategic level. In terms of maintenance, for instance, it explains that first, second, and third echelon maintenance is performed at the unit-level within the ARVN divisions, and Direct Support Units located throughout the RVNAF ALCs. At the operational level, fourth, and fifth echelons, highly complicated maintenance issues and total rebuilds, were to be provided by medium support battalions located at each RVNAF ALC, and by the 80th Ordnance Rebuild Base Depot located in Saigon.⁹⁶ This section provided the theoretical way the RVNAF logistics system should work.

The "estimate of the situation" subsection shines light on some of the shortcomings within the system. The summary argues that the RVNAF had advanced toward self-sufficiency from 1968-1969, but they still relied on assistance from the US advisors. It further emphasized that the ARVN system could expect more strain in the near future due to the changing situation and new growing force. This would be due to the ARVN taking on the challenge of defending the nation from outside aggressors as well as their pacification efforts, and the logistics snowball effect of increasing logistics personnel to support the increasing force structure. This section goes on to address some trends within each of the technical services.⁹⁷

⁹⁶ CLIP, 2-1 - 2-9.

⁹⁷ Ibid., 2-33 - 2-38.

While the second section of the CLIP made a determined effort to describe the RVNAF system and its shortcomings, it fundamentally failed to address the problem of integration, and leadership among the logistics organizations. It stated that the “supply system responded well during the past Communist Offensives,” but fails to qualify the statement by mentioning the degree to which they relied on the US system to react.⁹⁸

The third, final and largest section of the CLIP, “Logistic Objectives and Active Projects,” listed the 81 projects of the plan, divided into ten groups. The plan divided the projects between the South Vietnamese services, with nine assigned to the VNAF, eight to the VNN, and 64 to the ARVN. The ARVN projects fell into eight subcategories: J462, J463, Engineer, Medical, Ordnance, Quartermaster, Signal, and Transportation. The number of projects within each subcategory varied from only one in the J462, to twenty in the Ordnance subcategory.⁹⁹

The first subcategory had only one project, “Develop a Management Information System Geared Toward Evaluating Effectiveness of the RVNAF Improvement and Modernization Program.” This section seemed to relieve MACV from collecting and reporting information for inclusion in the monthly RVNAF Improvement and Modernization Management System (RIMMS) report. The new expectation was that the JGS/CLC will collect their own information, and that the MACV J462 will help them develop reporting systems to evaluate their supply management, maintenance system, and

⁹⁸ CLIP, 2-33.

⁹⁹ Ibid., 3-1 - 3-6.

transportation management.¹⁰⁰ It is difficult to rationalize how this affected logistics reporting through the RIMMS. RIMMS reports are not readily available after the August 1969 edition, the month in which the CLIP was published, implying that MACV discontinued the report. Nonetheless, the MACV 1971 Combined Strategic Objectives Plan still referred to the RIMMS as if it was still being produced.¹⁰¹ While the reporting regimen remains unclear, especially considering the Logistics Master Plan Management Chart, the projects seemed to remedy some of the problems evident in the CLOP.

The issues represented in the CLIP's projects spanned a wide range from tactical to strategic considerations. The projects in the J463 category, for instance, dealt mainly with strategic generation tasks, such as the establishment of an RVNAF National Materiel Management Center (Project 2-1). Meanwhile, the Engineer section included Project 3-6, "Shortage of Engineer Technical Manuals at Operator and Maintenance Level."¹⁰²

An exploration of the eighth subcategory of transportation projects helps to gain understanding of how the CLIP seemed to tie into the OJT program discussed later, and shows the coherent and realistic approach by MACV, while showing the myopic focus of the projects. The Transportation subcategory includes four projects: Transportation Improvement (OJT with U.S. Units); Water Lift Improvement; Terminal Operations Improvement, Terminal Service Companies; and Terminal Operations Improvement, Port

¹⁰⁰ Ibid., 3-7.

¹⁰¹ CSOP, 17-2. The CSOP goes on to state that the primary tool to evaluate operational effectiveness was the System for Evaluating the Effectiveness of RVNAF.

¹⁰² CLIP, 3-1, 3-9, 3-31.

Facilities. Each project includes an objective, a narrative of the background and current situation, courses of action, and deadlines for each sub task.¹⁰³ (See Appendix 2)

The CLIP represents a long term plan to improve the RVNAF logistical self-sufficiency. The deliberate way in which it laid out objectives, tasks, and forecasted deadlines seemed to mitigate the problems that Conroy experienced with the CLOP. Nonetheless, the available records do not indicate that the CLIP enjoyed much more success than its complementary plan.

While the plan attempted to address aspects of the science of logistics, it failed to embrace the complexities of the art of logistics. The categorization of the projects into departments and services fundamentally failed to address the deep-seated challenges of developing operational-level logistics capabilities. The projects do not address how logisticians above the corps level should be included into planning major operations. Nor do they foresee challenges in managing distribution networks and the integration of the different services. Had the plan insisted upon training high-level logistics planning within the RVNAF ALCs, they may have found more success in integrating the technical services and planning more effectively for support to combat operations. These shortcomings would become apparent in a few short years in Cambodia and Laos.

While the CLIP presented better guidance to the MACV J4 advisory sections on where to focus their efforts, it still fell short in recognizing the full potential of pairing off units that were already on the ground. The few references in the CLIP to the improvement of OJT programs demonstrated the influence of one individual on MACV's

¹⁰³ Ibid., 3-131 - 3-138.

belated planning efforts. As MACV struggled to finally get the CLOP and CLIP published and approved, one logistics commander had already embraced the natural nexus that exists among logistics units and civilians to develop a way to assist in RVNAF self-sufficiency.

LTG Joseph Heiser, Civic Action, and Project Buddy

Project Buddy represented an OJT Program designed to transfer duties among 1st Log Cmd elements to the RVNAF counterparts that were often collocated at ports, depots, and ammunition points. The commander who initiated the project, LTG Joseph Heiser, displayed prescience and determination, despite a lack of support from MACV. The actions of his subordinates demonstrated how the policy of Vietnamization translated into action at the operational level of logistics, and represented a lost opportunity by MACV over years of advising in Vietnam.

LTG Joseph Heiser demonstrated exceptional leadership as the commander of the 1st Log Cmd from July 1968 to July 1969. Not only did he initiate programs to improve the US logistics situation upon his arrival, he also recognized how he could extend his organization's influence to affect multiple aspects of the overall campaign plan in Vietnam.

Heiser had a tough childhood. He was raised in Charleston, SC by his great aunt because his mother died of influenza soon after divorcing his father for abusive alcoholism. When Heiser was 12 years old in 1926, his father took him away to Washington DC, having a brief exchange of gunfire with relatives on the way. As the specter of World War II loomed, Heiser enlisted in the Army because he did not want to wait on his Marine enlistment waiver. His leadership qualities earned him orders to the

Officer Candidate School where he received his commission as an Ordnance officer. He gained significant experience in the United Kingdom Base Section until 1945, then as the 7th Division Ordnance Officer in the Korean War.¹⁰⁴

In January 1966, Heiser began his assignment as the Assistant to the Deputy Chief of Staff for Logistics under LTG Lawrence Lincoln, Jr, and then LTG Jean Elger. Elger took the assignment as the Deputy Chief of Staff for Logistics after having served as Commander of the 1st Log Cmd. During this assignment, Heiser was sent to Vietnam to investigate some claims about inefficiencies in the logistics system. He found numerous problems, to include a backup in shipping and broken communications. At this early stage, he attributed the problems to a lack of accountability for what material was on the ground. This informed his approach and aggressiveness when he took charge of the 1st Logistical Command in the summer of 1968.¹⁰⁵

Upon arrival in Vietnam, Heiser established three major programs that inform the scope of this study. First, he initiated a “Logistics Offensive” to address the problems in the American logistics system that he found in his earlier investigation. This offensive focused on gaining accountability of material on hand and halting unnecessary items from coming into the theater. The success of Heiser’s program undoubtedly inspired the naming of the combined plans discussed previously, and inspired Heiser to enact an Army-wide “Logistics Offensive” when he became the Deputy Chief of Staff for

¹⁰⁴ Heiser, *Soldier Supporting Soldiers*, 3-79.

¹⁰⁵ *Ibid.*, 129-140.

Logistics after his tour in Vietnam.¹⁰⁶ Secondly, he commenced Project Skills II two months after he took command. This program augmented the Command's Operations Order 1-68, the plan for civic action throughout Vietnam. Skills II established an OJT program for Vietnamese in the fields of auto mechanics, clerical work, and carpentry. Finally, in light of the success of his civic action program, he instituted Project Buddy.¹⁰⁷ Heiser understood that members of the 1st Log Cmd were capable of providing more than just services and support as means to achieving the military strategic ends in Vietnam. It started with their natural interaction with the host nation's people.

Operational-level logistics organizations represent a natural point of collaboration between a military force and a host country. The logistical units in Vietnam interacted with the local population from the very start of the efforts to establish a viable South Vietnamese government. They executed local projects to support the quality of life for locals, trained the South Vietnam Armed Forces' logisticians, and developed programs for civilians with an eye on South Vietnam's post-war prosperity. Interactions with the local nationals were not always positive, however. Logistical commanders often negotiated with the local population to counter such frustrations as pilferage and labor union strikes.

Before President Lyndon Johnson's commitment of significant ground forces to Vietnam in 1965, the Headquarters Support Activity, US Navy, preceded the 1st Log Cmd as the ranking command for logistics. Even before a significant build-up of forces,

¹⁰⁶ Ibid., 150-165.

¹⁰⁷ SODR, Joseph M. Heiser, Jr., 23 September 1969, DTIC, CARL; Skills II, 224, 239-240; Buddy, 15.

the Navy demonstrated the natural ties between the logistical units and civic action missions. Voluntary dental care for the Vietnamese people, for instance, included more than 12,000 cases by October 1965.¹⁰⁸ In the US Navy's 1972 history of operational logistics in Vietnam, *Mobility, Support, Endurance*, Vice Admiral Edwin Hooper wrote, "The Dental Department sent out volunteer teams on weekends to villages and hamlets, where they performed minor surgery to relieve oral suffering and halt infections. In a typical ten-hour day, two dentists would pull as many as 600 teeth."¹⁰⁹ Apart from dental care, they saw numerous opportunities to help the host nation.

After the disestablishment of Naval Support Command as the ranking logistics headquarters, the Navy was still responsible for (Naval) USASC Da Nang, providing support for the northernmost I CTZ. One officer assumed the full time job of supervising civic action efforts, while other officers and sailors worked as volunteers. Over time, the commitment grew. By June of 1967, USASC-Da Nang had eight village action teams that rebuilt homes in damaged hamlets, established parks, and taught civil functions, such as waste disposal and traffic planning.¹¹⁰ US Marine Corps "Seabees"¹¹¹ actively engaged in civic projects throughout the war building schools, bridges, resettlement villages (critical in counterinsurgency environments), and wells. The units in the area support commands

¹⁰⁸ Edwin B. Hooper, *Mobility, Support and Endurance: A Story of Naval Operational Logistics in the Vietnam War, 1965-1968* (Washington, DC: Department of the Navy, 1972), 64-65.

¹⁰⁹ *Ibid.*, 65.

¹¹⁰ *Ibid.*, 101.

¹¹¹ The term "Seabee" comes from the abbreviation "CB" for construction battalion.

were particularly well suited to perform these functions because of excess dunnage available after supplies arrived.¹¹²

The civic action operations in Da Nang were replicated across the other support commands and grew in importance over the years. In 1967, USASC Saigon implemented the Long Binh Post People-to-People Program with marked success. The 1st Logistical Command Headquarters ORLL from July 1968 recorded,

The program involves weekly hamlet visits and the conduct of an intensive civic action program in the area. One significant project currently underway is the relocation of the entire hamlet of Nui Dat, which was devastated during the Tet attacks. Land was acquired from the government approximately two kilometers from the original site and 100 new homes are being built, entirely on a self-help basis, with material and technical assistance being provided by the Government of South Vietnam and USASC, Saigon.¹¹³

In response to USARV's Operations Plan 81-68 (Campaign Plan), the 1st Logistical Command, then under MG Thomas Scott, implemented Operations Order 1-68 ordering all of the Support Area Commands to develop programs like the USASC Saigon's People-to-People program. The July ORLL stated, "Its scope extends far beyond anything undertaken heretofore and is a major step forward in the effective coordination of the military civic action effort throughout Vietnam."¹¹⁴ Heiser recalled in his memoirs the voluntary efforts by U.S. servicemen on behalf of the Vietnamese in 1968 and 1969

¹¹² Hooper, 192-193.

¹¹³ ORLL, 1st Log Cmd, Quarterly Period Ending 13 July 1968, DTIC, CARL, 36.

¹¹⁴ Ibid., 36.

included construction of 1,253 schools, 175 hospitals, 598 bridges, and 7,099 dwellings.¹¹⁵

Operations Order 1-68 produced long-term fruits among the area support commands and paved the way toward training Vietnamese to take on increased responsibility in the USASCs. The 10th Transportation Battalion (Terminal) operated a stevedore training school for local nationals. Brigadier General Henry Del Mar stated in his Senior Officer Debriefing Report, “We are quite proud of the stevedores that graduated from our own stevedore training course. So fast have they advanced that Support Command trained stevedore crews now account for approximately one-third of all the cargo tonnage handled in Can Ranh Port.”¹¹⁶ Such programs exhibit the influence that the logistical commands could have in supporting the population in positive ways through civic action and civilian interaction.

Two months after Heiser arrived in Saigon, he expanded on the civic action program with Project Skills II, a training program for local nationals employed at the USASCs, in recognition of the increasing role of South Vietnamese civilians as manpower resources available to the 1st Log Cmd. Heiser further expanded this to Skills IIA, targeting high performers from the Skills II program for further education and potential managerial responsibility.¹¹⁷

¹¹⁵ Heiser, *A Soldier Supporting Soldiers*, 165.

¹¹⁶ SODR, BG Henry Del Mar, 18 February 1971, USAHEC, 13.

¹¹⁷ SODR, Heiser, 224.

This extensive review of the civic action and local national training programs shows that operational level logistics organizations naturally find themselves in positions to interact with local nationals, and take part in the improvement of their host nation. Furthermore, it demonstrates how the 1st Log Cmd leadership, particularly LTG Heiser, understood how they could use their USASCs to conduct OJT programs. Unfortunately, MACV failed to appreciate this capability. While Project Buddy did not receive its due attention in the eyes of its creator, it became a talking point for MACV in weekly updates to Pacific Command, and to the US Congress.

An understanding of the 1st Log Cmd's Project Buddy serves two purposes for understanding how the US Army Vietnamized operational level logistics. First, it solidified the Vietnamization concept before the policy even took effect. Secondly, it represents a missed opportunity for MACV to take an alternate approach to the advisory effort, and embrace further Abrams' "One War" concept.

Project Buddy emerged in the 1st Log Cmd's January 1969 ORLL's annex for training as a conceptual plan submitted to MACV and ARVN headquarters for approval. The report defined the operation as "a means of expeditiously expanding ARVN's logistical forces in order to insure [sic] their readiness to assume responsibilities connected with T-Day planning and MACV RVNAF improvement and modernization program."¹¹⁸ It further explained that 1st Log Cmd submitted the plan to USARV and MACV for concept approval in November 1968, but that the subordinate support commands should provide comments for consideration in the final plan, and be prepared

¹¹⁸ ORLL, 1st Log Cmd, quarterly period ending January 1969, DTIC, CARL, 47.

to implement the plan 30 days after USARV granted approval. Finally, it reported that each of the USASCs had initiated programs anticipating the plan's approval.¹¹⁹ This approval was not as smooth as Heiser hoped and expected.

MACV dragged its feet on approving Heiser's program because of a fundamental belief that advising, assisting, and training the RVNAF should be restricted to the advisors within MACV.¹²⁰ The friction between the organizations can be sensed through subsequent ORLLs, and by Heiser's records. In the 1st Log Cmd's April 1969 ORLL, the training division annex reported "MACV has not yet provided overall ARVN logistical training requirements to initiate full implementation of the program."¹²¹ The MACVJ46 finally received a briefing and completed an evaluation of the 1st Log Cmd's OJT training capacity in August 1969, nine months after Heiser's headquarters submitted the plan for approval.¹²²

MACV's annual *Command History 1969*, included OJT Project Buddy as a program in the master plan for logistics self-sufficiency. It acknowledged that 1st Log Cmd initiated Buddy in January as a pilot, and that the Military Assistance Command-Training staffed a proposed directive for RVNAF OJT that was published in October.

¹¹⁹ ORLL, 1st Log Cmd, quarterly period ending January 1969, DTIC, CARL, 47.

¹²⁰ Clarke, 430.

¹²¹ ORLL, 1st Log Cmd, quarterly period ending April 1969, DTIC, CARL, 51.

¹²² ORLL, 1st Log Cmd, quarterly period ending October 1969, DTIC, CARL, 33.

The history concluded the section stating, “At the end of the year, all indications were that the various OJT Programs were exceeding original expectations.”¹²³

Heiser expressed his displeasure with how MACV took on his proposed program in his SODR, his memoirs, and in the *Logistics Support* edition of the Vietnam Studies Series. In his SODR, Heiser wrote, “General Abrams personally approved the BUDDY concept in January but we have been unable to make real headway due to lack of interest in MACV J4 and some ARVN top level people who don’t recognize the problem!” He went on to state, “We have a psychological problem to solve in that there are those who are not intimately knowledgeable of our logistic system or the equipment provided; therefore, they cannot recognize what the requirement really is!”¹²⁴ In *Logistics Support*, Heiser wrote that the Buddy Project’s potential was never realized due to mid-level bureaucracy and jurisdictional protection on MACV’s part.¹²⁵ In his memoirs, published after the fall of Saigon, Heiser reiterated his disappointment, stating, “Because of lack of cooperation within the MACV staff, even though their boss had approved the project, we did not make nearly the progress we should have. I can’t judge the extent to which this failure affected the capability of the ARVN combat service support troops, but I know that it did hurt in the long run.”¹²⁶

¹²³ *Command History, 1969 Volume II*, VI-126.

¹²⁴ SODR, Heiser, 15.

¹²⁵ Heiser, *Logistics Support*, 241

¹²⁶ Heiser, *Soldier Supporting Soldiers*, 161-162.

Some of Heiser's frustration potentially resulted from the decision by MACV in summer of 1969 to eliminate the 1st Log Cmd Headquarters in their effort to optimize US troops in support of withdrawal caps. Heiser's replacement would be the last 1st Log Commander. He closed the headquarters in the summer of 1970. Thereafter, the USASCs reported directly to USARV.¹²⁷

Heiser's frustrations notwithstanding, the Buddy Project resulted in deliberate contributions by the USASCs to the RVNAF's self-sufficiency in operational logistics for the remainder of the war. The 1st Log Cmd's ORLLs show impressive growth in training the RVNAF troops through the years. During the "pilot period" before MACV approved the program, ten ARVN soldiers received training as tug boat masters from the 4th Transportation Command from USASC-Saigon, and 16 ARVN soldiers received heavy boat, machine shop, and harbormaster operations training from the 159th Transportation Battalion (Terminal).¹²⁸ The 159th Transportation Battalion (Terminal) oversaw stevedore functions in Qui Nhon from 1966 to April 1969, and the Vung Tau and Cat Lai ports in the USASC-Da Nang until it departed Vietnam in June 1971.¹²⁹ The geographical locations of these troops show that 1st Log Cmd carried this initiative throughout the country, not just in the major Saigon / Long Binh area.

In the first month that MACV finally evaluated Heiser's program, August 1969, the 1st Log Cmd trained 80 ARVN soldiers. Two months later, 572 soldiers received

¹²⁷ Cosmas, *MACV: The Years of Withdrawal*, 209-210.

¹²⁸ ORLL, 1st Log Cmd, quarterly period ending April 1969, DTIC, CARL, 51.

¹²⁹ Stanton, 226.

training in areas ranging from laundry machine maintenance, to tug, medium, and heavy boat operations.¹³⁰ By January 1970, 814 ARVN soldiers had been trained, while 843 ARVN soldiers were in training.¹³¹ In the 1st Log Cmd's final ORLL before deactivation, the program expanded even further throughout the ASCs with 2,425 ARVN soldiers trained over the course of three months. This training included more nuanced courses, such as the 24 ARVN soldiers who received ammunition handling, identification inspection, and maintenance techniques training by the 3rd Ordnance Battalion from USASC-Saigon.¹³²

The project received mixed coverage in the USASC Commanders' SODRs. This indicates to some degree the amount of command emphasis the program received. With respect to USASC Cam Rahn Bay, for instance, Colonel (COL) Frank Gleason's SODR makes no mention of Project Buddy, or of any coordination or relationship with the RVNAF ALCs that had the same area of support operations.¹³³ In fact, the USASC Cam Rahn Bay ORLLs from his time in command reflect no efforts to institute the concept Heiser instructed his subordinate commands to develop.¹³⁴ Gleason's replacements, though, highlighted specifically the value of the program.

¹³⁰ ORLL, 1st Log Cmd, quarterly period ending October 1969, DTIC, CARL, 33.

¹³¹ ORLL, 1st Log Cmd, quarterly period ending January 1970, DTIC, CARL, 31.

¹³² ORLL, 1st Log Cmd, quarterly period ending April 1970, DTIC, CARL, 22.

¹³³ SODR, COL Frank Gleason, 19 September 1969, DTIC, CARL.

¹³⁴ ORLLs, USASC Cam Ranh Bay, quarterly periods ending April, July, and October, 1969, DTIC, CARL.

BG Henry Del Mar assumed command of USASC Cam Ranh Bay in October 1969, and seemed to have embraced Project Buddy. The first ORLL released after he took command reflected the initiation and growth of the program, including that in January 1970, “an Instruct and Advise (I&A) Team composed of six personnel from this command was attached to MACV Team 11 in Nha Trang to assist ARVN personnel while they were working on the job.”¹³⁵ The program received further emphasis in the US Army Depot, Cam Ranh Bay report for the same period, that reported how nine ARVN soldiers were receiving training on care and preservation techniques and methods of packaging. The depot commander used contractors from the Vinnell Corporation to teach the course because they were the subject matter experts in the task. When a Contract Officer Representative from Vinnell Corporation stated he would not continue instruction without a letter from the USASC Cam Ranh Bay Headquarters, one was readily produced and provided.¹³⁶

In his SODR, BG Del Mar expressed pride in his command’s efforts to Vietnamize their tasks, and in the rapport that the members of his command had built with the Vietnamese civilian and military communities. In the “Highlights of My Period of Command” section, he stated, “approximately one of every three tons of cargo that passes through the Cam Ranh Port is handled by Support Command trained Vietnamese

¹³⁵ ORLL, USASC Cam Ranh Bay, quarterly period ending January 1970, DTIC, CARL, 5.

¹³⁶ ORLL, US Army Depot, Cam Ranh Bay, quarterly period ending January 1970, DTIC, CARL, 5. The Vinnell Corporation was a government-owned civilian operated component at ASC Cam Ranh Bay that operated high voltage power plants, stevedore support, and port clearance support to the command. Stanton, 192.

stevedores,” and “in all my maintenance areas I have Vietnamese military and civilian personnel working side-by-side doing on-the-job training with my own maintenance personnel.”¹³⁷ Del Mar’s replacement, MG Harold Kissinger, who commanded USASC Cam Ranh Bay from September 1970 until March 1972, enthusiastically continued this trend reporting on direct and indirect dealings with the 2nd and 5th RVNAF ALCs.¹³⁸

Support for Project Buddy among the commanders of USASC Da Nang started strong, but took on a different tone in the final years. BG George Young commanded this northern most USASC from March 1967 to October 1968. He observed that the effectiveness of MACV’s centralized advisory effort was “highly questionable,” and that the 1st Log Commander should be in charge of this aspect of Vietnamization. This was prescient as he left command prior to Heiser’s arrival.¹³⁹ His successors did not reflect similar zeal in their SODRs. BG James Gunn, the commander from October, 1968 to October, 1969, made no mention of Project Buddy or any relations with his ARVN counterparts. COL H. D. Smith, commander from October 1969 to July 1970, included Project Buddy in his list of activities, but did not stress any relationships in his SODR.¹⁴⁰ However, the USASC Da Nang ORLLs during Smith’s tenure in command implied significant support for the program. The ORLL covering the period from January to April, 1970, reported that Project Buddy remained a “top priority” for the command.

¹³⁷ SODR, BG Henry Del Mar, February 1971, DTIC, CARL, 21.

¹³⁸ SODR, MG Harold Kissinger, December 1972, DTIC, CARL, 5.

¹³⁹ SODR, BG George Young, October 1968, DTIC, CARL, 12-13.

¹⁴⁰ SODR, BG James Gunn, November 1969, DTIC, CARL; SODR, COL H.D. Smith, December 1970, DTIC, CARL, 3.

Smith had organized two internal Instruct and Advise teams. One team completed a six-week training cycle at the ARVN 812th Ordnance Company in Da Nang, while the other worked with the ARVN 811th Ordnance Direct Support Unit in Hue.¹⁴¹ Smith's successor, MG Arthur Sweeney's report covering November 1970 to April 1972, leaves the impression that Vietnamization diverted from being a matter of training, but was merely a method of handing over equipment and responsibility.¹⁴² Sweeney's perspective was likely influenced by his focus on supporting Operation Lam Son 719, and then transferring his attention almost solely to Operation Keystone duties.

The SODRs from the commanders of USASC Qui Nhon further imply differing attitudes about the USASCs role in transferring tasks to the ARVN. BG Darrie Richards, commander from May 1968 to June 1969 made no mention of Project Buddy, or of Vietnamization. Although, the ORLL for his time in command reflected that they had introduced and were widening the scope of the project.¹⁴³ On the contrary, Richards' successor, BG Albert Hunter, who commanded from 8 June 1969 to 1 June 1970, lauded his command's efforts in his SODR's summary. His comments are worth quoting at length, stating,

A final but most noteworthy accomplishment has been the success achieved by [Qui Nhon Support Command] in the ARVNIZATION Program. The 1377 members of the RVN, 2d Area Logistics Command who have been trained in logistics skills represent about 23 percent of the 6,000 personnel assigned to the

¹⁴¹ ORLLs, USASC Da Nang, quarterly periods ending January, July, 1970, DTIC, CARL; ORLL, USASC Da Nang, quarterly period ending April 1970, DTIC, CARL, 16.

¹⁴² SODR, MG Arthur Sweeney, December 1972, DTIC, CARL.

¹⁴³ SODR, BG Darrie Richards, July 1969, DTIC, CARL; ORLL, USASC Qui Nhon, April 1970, DTIC, CARL, 23.

2d ALC. Other ARVNIZATION highlights include the planned relocation of US Ammunition stocks into the ARVN [ammunition supply point] at Pleiku early in June 1970 and the ARVN operations of the Pleiku Tank Farm. [Qui Nhon Support Command] is giving high priority to the ARVNIZATION Program in order to prepare the ARVN 2d ALC for the eventual take over and operation on US logistical facilities.¹⁴⁴

Sadly, Hunter's successor made no mention of Buddy, Vietnamization, or relationships in his SODR.

This meticulous review of the SODRs and ORLLs from the 1st Log Cmd and USASC levels contributes to our understanding of the Vietnamization of operational level logistics in two significant ways. It shows how the policy of Vietnamization materialized on the ground where the US and ARVN troops met face to face. Furthermore, it illustrates the influence of the personalities associated with such a program and how much effort they receive, particularly in a time when these organizations faced multiple competing requirements. These negative factors were exacerbated by the loss of the program's patron, LTG Heiser, and the subsequent closing of the 1st Log Cmd Headquarters the year after he left.

The progress made in training the RVNAF troops through Project Buddy proved to be a point of pride for the US Army, writ large. The numbers of troops trained through the program were included in the "Army Activities Report: SE Asia," a weekly informational report from the US War Office.¹⁴⁵ In his testimony to the US Senate

¹⁴⁴ SODR, BG Albert Hunter, July 1970, DTIC, CARL, 29.

¹⁴⁵ "U.S. Army Activities Report - U.S. Army Build-Up and Activities in South Vietnam, 1965-1972" - Vietnam War Research Collections, 17 February 1971, Folder 0521, Box 0024, TTUVVA, accessed 10 March 2016, <http://www.vietnam.ttu.edu/virtualarchive/items.php?item=F031700240521>, 66.

Committee on Foreign Relations in March 1970, General Clement used data from Project Buddy to highlight MACV's increase in training efforts.¹⁴⁶ Unfortunately, this did not mean that 1st Log Cmd's great efforts effectively complemented MACV's efforts.

Conclusion

This detailed review of MACV's plans for the improvement and modernization of the RVNAF logistics, as captured in the CLIP and CLOP, and the efforts made by 1st Log Cmd through Project Buddy after years of practice training Vietnamese civilians, demonstrates two key factors about how the US Vietnamized operational level logistics. First, it showed that there was a logical thread from the Vietnamization policy through plans made by MACV to improving the RVNAF logistics. The CLIP and CLOP represented honest efforts to find measures of effectiveness and attempted to assign tasks and timelines to each of them. Sadly, though, the related documents available for this study indicate superficial efforts that did not address the art of operational logistics. This seems to match what historian Gregory Daddis said of MACV's advisory efforts in general. Daddis concluded, "there were too many metrics, but not enough meaningful metrics."¹⁴⁷

Secondly, a review of the programs as a whole reflects the lack of synchronization between MACV's efforts, and those of the organizations that could directly affect

¹⁴⁶ BG Wallace L. Clement, testimony before the US Senate Foreign Relations Committee, "Vietnam: Policy and Prospects, 1970, U.S. Military Advisory Program," 450.

¹⁴⁷ Gregory Daddis, *No Sure Victory: Measuring US Army Effectiveness and Progress in the Vietnam War* (Oxford: Oxford University Press, 2011), 224.

RVNAF capability. Neither the CLIP nor the CLOP are ever mentioned in 1st Log Cmd ORLLs or in the SODRs of the senior logistics commanders. Nor do the CLIP or CLOP clearly assign responsibilities to the 1st Log Cmd, or the USASCs to support the MACV trainers. While the CLIP referenced the initial efforts of Project Buddy (though not by name) as beneficial to the CLIP objectives, it did not result in aggressive support on the whole from MACV.

The state of the overall effort to improve the RVNAF operational logistical capabilities was summed up in the April, 1971 ORLL from USASC Cam Ranh Bay. In it, the unit reported that efforts toward Vietnamization programs were limited for three reasons: lack of coordination and planning; lack of translators for Project Buddy; and feet-dragging by the ARVN.¹⁴⁸ Had MACV considered the need to come up with a plan earlier, and recognized that the USASCs already had a natural relationship with the Vietnamese through their civic action programs, they may have produced a more synchronized plan with more concrete results. The conditions as they played out explain how well, or how poorly, the RVNAF logisticians would conduct the art of operational logistics in the final years of American involvement in the war.

¹⁴⁸ ORLL, USASC Cam Ranh Bay, quarterly period ending April 1971, DTIC, CARL, 32.

CHAPTER 4

IDENTIFYING GAPS: LAM SON 719 AND RVNAF'S RELIANCE ON MACV

In order to properly assess how well the US Army Vietnamized operational logistics, we must consider the performance of the RVNAF itself. The 1971 raid into Laos, Operation Lam Son 719 and the subsidiary Operation Dewey Canyon II, represent the best case study for considering the effectiveness of the effort for numerous reasons. It takes place more than 18 months after the publication of the CLIP, CLOP, and Buddy program, so one may reasonably expect significant RVNAF advances. Furthermore, the RVNAF and US had the opportunity to learn from the incursion into Cambodia a year prior. The nature and scale of the operation also make it the best candidate for study. Since Operation Lam Son 719 was an offensive campaign, the RVNAF possessed the initiative, ostensibly giving them opportunity to develop an efficient and effective operational logistics plan and network. Finally, Lam Son 719 serves best as a case study because once the Nixon Administration used the operation as demonstration of success for the Vietnamization program, the logisticians' efforts turned increasingly (even totally) to Operations Keystone and Enhance, to the detriment of the OJT program.

The execution and aftermath of Operation Lam Son 719 evidenced the neglect of Vietnamization efforts in operational level logistics because of the lack of coordination in logistical planning, the overreliance on the American logistical infrastructure, and the effects of the decision after the operation to accelerate the withdrawal of American forces from Vietnam. The lack of coordination in logistical planning highlighted MACV's half-hearted efforts to advise and assist the RVNAF in an arena, as Heiser said, MACV did not fully grasp. The RVNAF performed poorly, or relied heavily on American capability

to transport, sustain, and redeploy at the operational level. Finally, after the operation concluded and President Nixon declared success of the Vietnamization program, he set the wheels in motion that would not allow logisticians of the USASCs to bolster their efforts to improve the RVNAF because of the great demands inherent in the transfer of equipment and withdrawal. While the true comprehensive test to Vietnamization would come a year later with the NVA Easter Offensive, the planning, execution, and results of Operation Lam Son 719 showed that Vietnamization of operational level logistics would never meet its potential, had MACV began efforts earlier and capitalized on the 1st Log Cmd's expertise.

This chapter evaluates the RVNAF's capability to conduct theater combat logistics using the GTSR cycle. It is appropriate though to provide some background for Operation Lam Son 719, to include some salient points on the Ho Chi Minh Trail, the Cambodia Incursion of 1970, the operational plan and execution, and the logistical plan. After using the stages of the GTSR cycle as a tool for evaluation, the chapter concludes with the effects of the aftermath of Lam Son 719 on the final stages of American involvement in the war.

The RVNAF Goes on the Offensive

In 1970, the Nixon administration faced a balancing act of appeasing ravenous calls for withdrawals from the theater by the US public, and holding off an aggressive enemy so MACV and RVNAF could continue implementing Vietnamization. Meanwhile, his National Security Advisor, Henry Kissinger, engaged in largely ineffective, secret negotiations with the North Vietnamese. In the midst of these events, the North Vietnamese were preparing for another offensive into South Vietnam similar to

the Tet Offensive by pushing supplies down their strategic and operational lines of communications through Laos and Cambodia. This network was the Ho Chi Minh Trail.¹⁴⁹



Figure 5. 1970 Cambodian Incursion

Source: Graham Cosmas, *MACV: The Years of Withdrawal, 1968-1973* (Washington, DC: US Army Center of Military History, 2006), 299.

¹⁴⁹ Herring, 287-288. Similar to discussions in chapter 1, and later in this chapter, the relative scale of power projection defines what are operational and strategic LOCs. Since the theater of operations generally includes all of the countries in eastern Indochina, these road networks are both operational and strategic.

The Ho Chi Minh Trail had, since the establishment of an independent South Vietnam, been a “thorn in the back” for RVN and American political and military leaders.¹⁵⁰ In fact, the system’s roots dated to the 1st Indochina War to support the Viet Minh’s struggle for independence from France. It consisted of about 2,000 miles of roadways, trails, and waterways that followed the length of South Vietnam, with offshoots along the way. It took the NVA Group 559 consisting of over 150,000 troops, volunteers, and forced laborers to sustain the routes in the face of US bombing interdiction efforts. The NVA committed such deliberate efforts because of its necessity to support any major operations against the South.¹⁵¹

The Americans desired for some time to isolate or interdict portions of the Ho Chi Minh Trail, and in late 1969, the Joint Chiefs asked for MACV’s opinion on a South Vietnamese incursion into Cambodia near Saigon. After Abrams expressed reticence on the RVNAF’s ability to conduct the operation on their own, a combined US/RVNAF assault across the border received Nixon’s support and approval. The operation was aimed at interdicting the ends of the Ho Chi Minh Trail, and disrupting the exiled Central Office for South Vietnam (COSVN) in Cambodia. Importantly, the operation consisted of an American-led combined portion, and a largely independent portion for the ARVN in the “Parrot’s Beak,” a tract of Cambodian territory that juts into South Vietnam.¹⁵²

¹⁵⁰ Nguyen Duy Hinh, *Lam Son 719* (Washington, DC: US Army Center for Military History, 1979), 32.

¹⁵¹ *Ibid.*, 9-16.

¹⁵² Sorley, *A Better War*, 200-208.

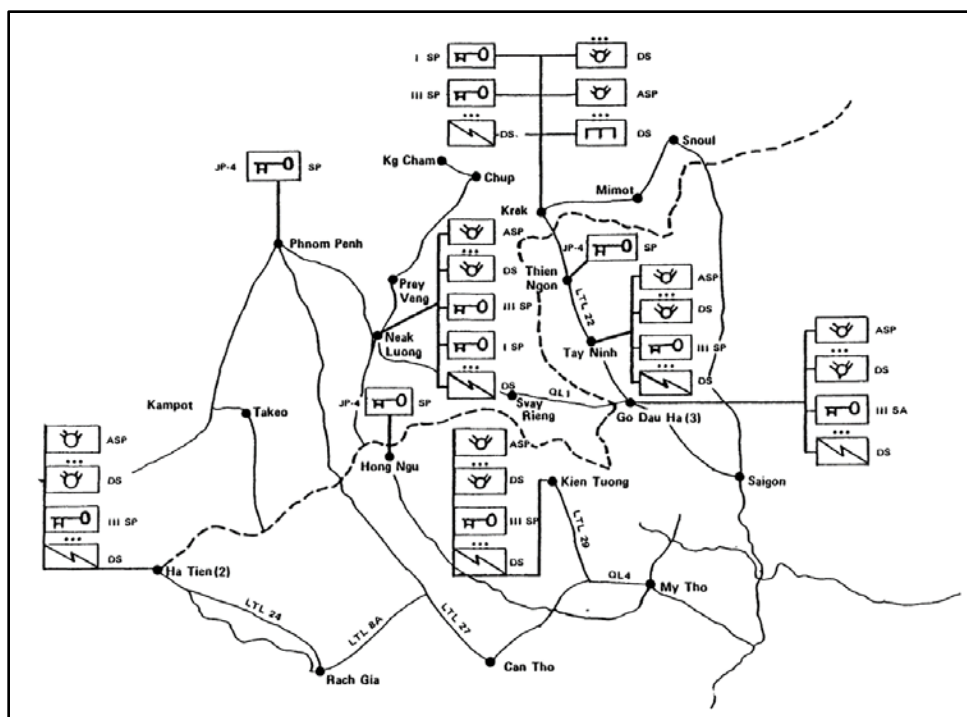


Figure 6. Organization for Logistic Support, Cambodian Incursion, 1970

Source: Dong Van Khuyen, *RVNAF Logistics* (Washington, DC: US Army Center of Military History, 1980), 190.

Logistically, the Cambodian Incursion served as a great opportunity for the RVNAF to establish an operational-level logistics network in support of a major combat operation. This required them to augment the existing infrastructure of the 3d and 4th RVNAF ALCs with four and five support bases, respectively, located in key sites around the Parrot's Beak, and within Cambodia. For instance, at Go Dau Ha, a village just east of the RVN-Cambodia border on the Parrot's Beak, along Highway 1, the CLC deployed the 531st Ammunition Depot, and the 333d POL Field Depot, as well as direct support platoons for signal and ordnance. Establishing this infrastructure also proved helpful in

integrating engineer troops, who had to make these FSAs survivable, and recondition the supply routes in their area of operations.¹⁵³

According to multiple accounts, the logisticians performed satisfactorily in support of the Cambodian Incursion, but not without some troubling shortcomings.¹⁵⁴ Some of these related directly to the RVNAF's operational level challenges. Their field- and depot-level maintenance proved inadequate due to a lack of replacement parts, resulting in high unserviceable rates. A lack of wreckers limited their capability of evacuating the M-113 Armored Personnel Carriers, and M-41 tanks.¹⁵⁵ Furthermore, while they adequately built up the supplies at the FSAs, their processing and issue rate proved relatively slow.¹⁵⁶

The CLC logistical network enjoyed numerous favorable conditions, particularly fair weather, an enemy that decided to cut and run rather than stay and fight, and numerous supply routes among the FSAs and the existing 3d and 4th RVNAF ALCs' areas. These supply routes even included the Mekong River, used extensively by the VNN riverine forces to transport supplies to the Phnom Penh supply base.¹⁵⁷ The *Cambodian Incursion*, and *RVNAF Logistics* monographs from the Indochina Monograph Series fail to emphasize the importance of the proximity of this operation to Saigon, and

¹⁵³ Khuyen, 189-193.

¹⁵⁴ Khuyen, 195-196; Tran Dinh Tho, *The Cambodian Incursion* (Washington, DC: US Army Center for Military History, 1979), 180; Clarke, 418.

¹⁵⁵ Tho, 180; Khuyen, 193.

¹⁵⁶ Khuyen, 193-194.

¹⁵⁷ Tho, 180; Khuyen, 194.

the RVNAF's existing stocks within the III CTZ. This proximity, which directly relates to the number of improved roads in the area, effectively simplified the RVNAF's strategic, operational, and tactical GTSR cycles. The RVNAF would not possess the same favorable conditions a year later.

Operation Lam Son 719

Nearly a year after the Cambodian Incursion, MACV hatched another plan to interdict the Ho Chi Minh Trail, but this time into southern Laos, near the demilitarized zone between North and South Vietnam. As early as August 1970, Admiral John S. McCain, Jr., Commander in Chief of US Pacific Command, conveyed to General Abrams the White House's proposal for another cross-border effort. Importantly, Abrams had concerns about how such an effort affected the Vietnamization program, stating "When a new endeavor is launched, something has to give."¹⁵⁸ In early December 1970, McCain instructed Abrams to initiate planning for an ARVN thrust into Laos. By late December, Abrams presented confidently his plan for the South Vietnamese to seize Tchepone, a critical hub of the Ho Chi Minh Trail. Abrams came to believe the operation could have lasting, if not permanent, effects on the enemy's ability to transport supplies into the northern region of South Vietnam.¹⁵⁹

¹⁵⁸ As quoted in Sorley, *A Better War*, 232. This was a message sent by Abrams to McCain in August 1970.

¹⁵⁹ Sorley, *A Better War*, 230-235; Willbanks, *Abandoning Vietnam*, 96-97.

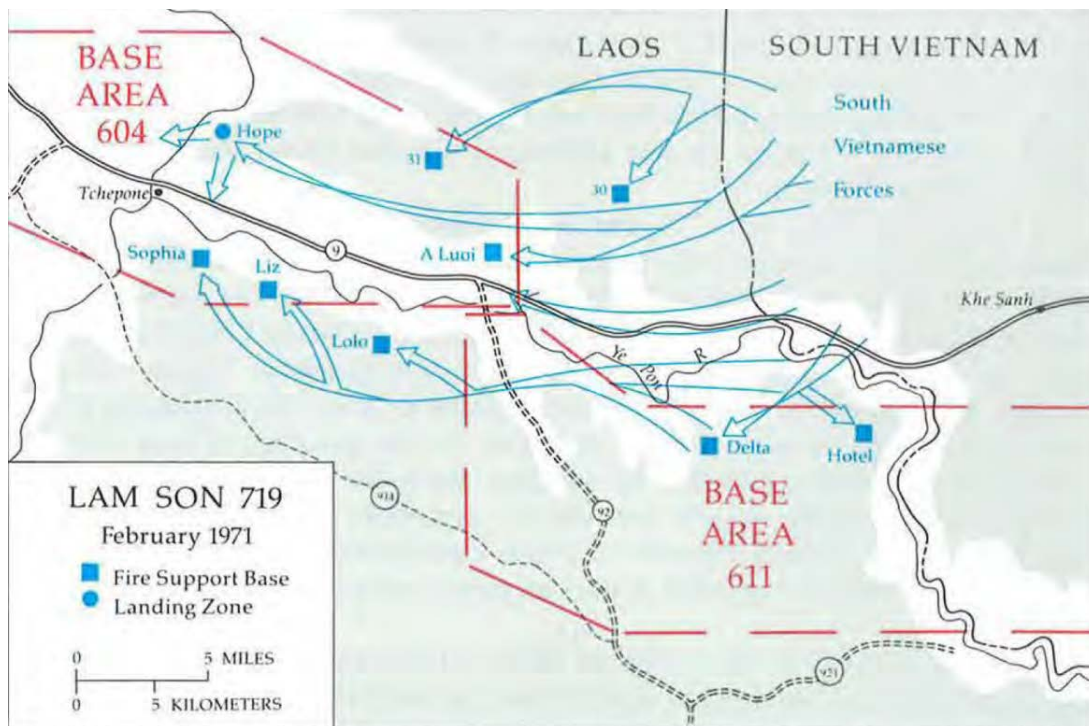


Figure 7. Operational Map—Lam Son 719

Source: Jeffrey Clarke, *Advice and Support: The Final Years, 1965-1973* (Washington, DC: US Army Center of Military History, 1988), 474.

Unlike the previous year's operation, political conditions forbade the Americans from setting foot on Cambodian or Laotian soil. In response to Nixon's expansion of the war in 1970, Senators Frank Church and John Cooper introduced an amendment to a foreign military sales bill prohibiting MACV from committing troops outside of South Vietnam, and for defunding future financial support to the GVN. The amendment, tempered of its extreme proposals, finally passed in December of 1970.¹⁶⁰

¹⁶⁰ Henry Kissinger, *Ending the War in Vietnam* (New York: Simon and Schuster, 2003), 169-171; David F. Schmitz, *Richard Nixon and the Vietnam War* (Lanham, MD: Rowman and Littlefield, 2014), 92-94.

The plan for the attack into Laos had four phases. The first phase consisted of an American shaping operation named Operation Dewey Canyon II. The US XXIV Corps, under the command of LTG James W. Sutherland, received the tasks to clear and improve the routes from the cities of Quang Tri through Khe Sanh, and to the border. They had to rebuild the airstrip and base area at Khe Sanh to accommodate the significant logistical footprint necessary to support the operation. Sutherland had to provide forces to protect the northern approaches to Khe Sanh, and to integrate with the 2nd Regiment of the 1st ARVN Infantry Division defending against a possible NVA attack across the DMZ. Meanwhile, the plan called for the ARVN I Corps, under the command of LTG Hoang Xuan Lam, consisting of their Rangers, the Airborne Division, the Marine Corps Division, the 1st Infantry Division, and an Armored Brigade, to stage in various bases in the I CTZ in preparation for the push into Laos. All of this was expected to take place within approximately a week from its inception on 8 February.¹⁶¹

Phase II of the plan launched the multidivisional invasion into Laos with Route 9, the road connecting Khe Sanh in Vietnam to Tchepone in Laos, as the focal point. The Rangers, paratroopers, and Marines were to be inserted by (mainly American) helicopters to the north of Route 9 to establish mutually supporting fire support bases to protect the main road. The 1st Division would enter in a similar fashion to protect the Route from the south. Then, the Armor Brigade, task organized under the Airborne Division, would assault along Route 9, rebuilding the road in stride. After an operational pause at Objective A Luoi, they would continue to attack to Tchepone, linking up with a vertical

¹⁶¹ Hinh, 35-36; Willbanks, *A Raid Too Far*, 40-43.

envelopment by a brigade from the Airborne Division. The plan estimated that the ARVN would seize and clear Tchepone by about 6 March.¹⁶²

After the seizure of Tchepone, Phase III of the plan called for the ARVN to establish blocking positions and conduct search operations around the city. This was meant to disrupt the flow of materiel down the Ho Chi Minh Trail, and to find and destroy any caches in the area. The planners expected this phase to last until the monsoon season began in the region in early May.¹⁶³

The final phase of the operation laid out the withdrawal of the ARVN divisions from Laos, back into South Vietnam. The plan offered two options. The first essentially followed the same entry route. The second option consisted of an attack to the southeast and up through the Laotian Salient clearing the NVA's so-called Base Area 611. Both options included plans to leave behind South Vietnamese Guerrilla Forces and other assets to continue harassing the enemy.¹⁶⁴ It should be noted that the plan failed to consider the logistical requirements of redeploying this massive effort out of the ICTZ and the Khe Sanh Area (Discussed below).

The Logistical Plan

The Operation Lam Son 719 logistics plan reflected an unrealistic expectation of RVNAF logistics capability and capacity. Meanwhile, the logistical planning reflected

¹⁶² Hinh, 36-37.

¹⁶³ Hinh, 37; Willbanks, *A Raid Too Far*, 44-45.

¹⁶⁴ Hinh, 39-40; Willbanks, *A Raid Too Far*, 44-45.

the lack of synchronization between MACV and the USASCs in their efforts to Vietnamize operational level logistics.

The plan called for the ARVN I Corps to receive its supplies through the US distribution pipelines manned by USASC, Da Nang for the first 10 days of the operation. Afterward, over the course of about nine days, the plan expected the ARVN 1st ALC to assume responsibility for ARVN logistical support. USASC Da Nang, under MG Arthur Sweeney's command, planned to provide support using existing networks in the CTZ, but had to augment this with new bases due to the scale of the operation, and because the US no longer had a logistical footprint near enough to the Laotian border since the closure of the Khe Sanh airbase.¹⁶⁵

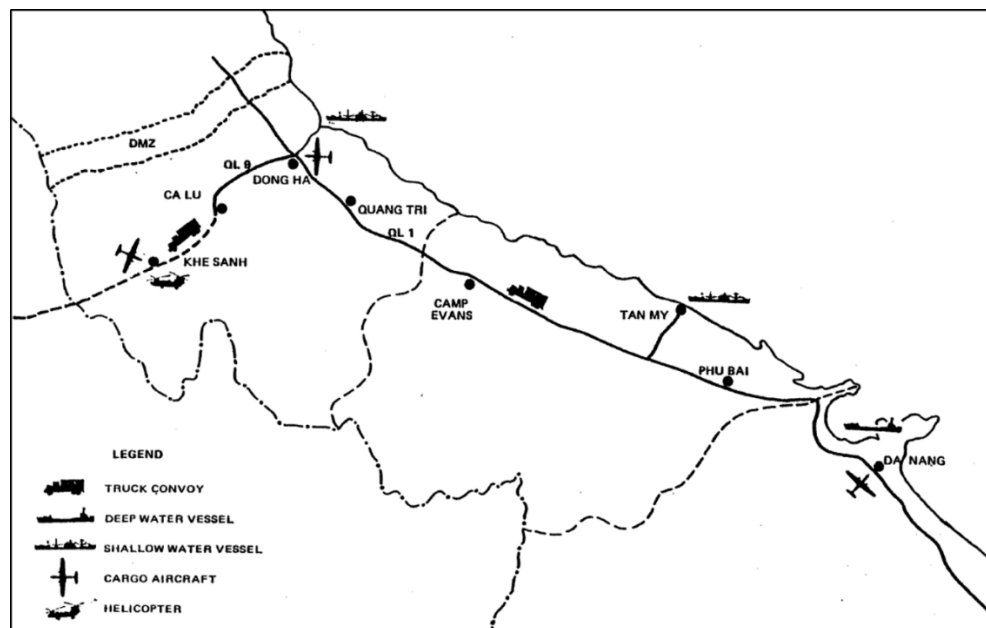


Figure 8. Ports Supporting Operation Lam Son 719

Source: Nguyen Duy Hinh, *Lam Son 719* (Washington, DC: US Army Center for Military History, 1979), 52.

¹⁶⁵ Willbanks, *A Raid Too Far*, 48-49.

In order to meet the demands of the operation, General Sweeney split the 26th General Support Group (GSG) into four separate elements. The actual 26th GSG headquarters remained in Phu Bai in control of the 2nd Maintenance Battalion and port operations at the nearby shallow-draft port of Tan My. They further established a “Forward” Headquarters with a Base Support Area in Quang Tri, including the 63rd Maintenance Battalion. Finally, they opened a FSA 26-1 and FSA 26-2 in Fire Support Base Vandergrift (Ca Lu) and Khe Sanh, respectively.¹⁶⁶

General Sweeney recognized that his command lacked sufficient transportation assets to support an operation of this scale. On 7 February 1970, one week into the first phase of the operation and D-Day for the ARVN attack into Laos, Sweeney called Colonel Richard Morton, the commander of the 8th Transportation Group in USASC, Qui Nhon, to move his HQ to Phu Bai to manage the theater’s ground transportation provided by the 39th and 57th Transportation battalions, and C Company, 11th Motor Transportation Battalion. Morton described the chain of events in an oral history at the end of his career, stating, “the reason for me going up there was the motor transport situation and the highway net. [They were] coming apart.”¹⁶⁷ The resulting command arrangement placed Morton’s 8th Transportation Group under the 26th GSG and its commander, COL Emil Konopnicki. Interestingly, Konopnicki was junior to Morton. Sweeney chose this arrangement, and asked Morton to subordinate himself, because

¹⁶⁶ SODR, MG Arthur Sweeney, DTIC, CARL, 5.

¹⁶⁷ Oral History, Richard L. Morton, interviewed by Terry Hunter, 20 August 1987, accessed from US Army Transportation Corps History, General Officer Interviews, accessed 20 May 2016, <http://www.transportation.army.mil/history/GOinterviews.html>, 14; Hinh, 177.

Konopnicki had been involved in the operation for a long time, while Morton only learned of the invasion of Laos on the morning that ARVN crossed the border.¹⁶⁸

Morton claimed in his oral history that one of the underlying problems in the Laos plan was how few people were involved in its planning, stating “There were so few people cut in on this, that it began rolling without every proper [sic] hands on the throttle.” He also said, “[The planning team] really never got down to the action officer level where any logistician action officer type could say, ‘Hey listen, you have half the number of truck companies. Your road network won’t support this. Your ports are too far south.’”¹⁶⁹ MACV and the JGS felt compelled to severely limit who would be involved in the planning of Lam Son 719 for operational security reasons. They hoped to surprise the NVA. MACV even embargoed the press from mentioning anything of the operation, or on the embargo, knowing that it would likely not sit well with the American public.¹⁷⁰

Their need to retain operational security resulted in the unfortunate decision to exclude the 1st RVNAF ALC Commander, Colonel Mai Duy Thuong, or anyone from his organization, from planning the operation. The planning, therefore, fell upon the ARVN I Corps G4, who began developing their concept for support on 8 January.¹⁷¹ The

¹⁶⁸ Oral History, Morton, 17.

¹⁶⁹ Ibid., 14-16.

¹⁷⁰ Sorley, *Vietnam Chronicles*, 528-529.

¹⁷¹ Report, U.S. Army - After Action Report for Lam Son 719, XXIV Corps, 30 January 1971 thru 6 April 1971 [Part 2 of 2], 14 May 1971, Folder 09, Box 05, Michael Sloniker Collection, TTUVVA, accessed 20 April 2016, <http://www.vietnam.ttu.edu/virtualarchive/items.php?item=8850509001>, Annex D, Appendix 10, 10-D-1. Hereafter, US XXIV Corps AAR.

initial concept addressed the 1st RVNAF ALC's responsibilities, but it can be no surprise that this led to the same lack of detailed planning that the Americans faced. As luck would have it, he and the Corps' lead planner died in a helicopter crash days after the operation kicked off.¹⁷²

The collective reminiscences to this key leader's exemption reveals the confusion and frustration associated with this decision. General Nguyen Duy Hinh, took a measured tone in his Indochina Monograph: Lam Son 719, stating "Unfortunately, the ARVN 1st Area Logistics Command, which was responsible for logistical support for I Corps and [Military Region] 1, was excluded from the operational planning staff because of security and restrictive measures . . . But this tardiness was in no way an insurmountable obstacle."¹⁷³ General Khuyen, then the Commander of the RVNAF CLC, took slightly more direct approach, writing "Strangely, the 1st ALC Commander, the man responsible for the success or failure of support activities on the ARVN side, was not among those who were authorized advance knowledge of the operation and a role in its planning . . . Because of the lack of advance planning, the 1st ALC was overwhelmed by the rush of last-minute activities."¹⁷⁴ Khuyen went on to criticize I Corps for failing to provide an appropriate corps support command to coordinate efforts at Khe Sanh, and for

¹⁷² Hinh, 69; Sorley, *A Better War*, 247.

¹⁷³ Hinh, 47-48.

¹⁷⁴ Khuyen, 200.

complaining about having ready access to the 1st ALC Commander. He also pointed out that Colonel Mai Duy Thuong's US advisor was also kept in the dark.¹⁷⁵

The USASC Da Nang quarterly ORLL from April 1971 revealed how the Americans had a similar, measured, frustration with the secrecy of the planning. In its April, 1971, ORLL, the USASC Da Nang reported the limited distribution restrictions to the planning of Lam Son as a problem, stating "Even 1st Area Logistical Command which was directly involved in the operation was not included in the planning."¹⁷⁶ Furthermore, the report reflected the need for a joint logistical control center before the operation started in order to avert discontinuities between the USASC's, and the RVNAF ALC's disparate ammunition pipelines.¹⁷⁷

The American and Vietnamese responses to the decision to exclude the 1st RVNAF ALC Commander from the Lam Son 719 planning shows that, while it did not have a significant impact on the operation, it had some detrimental effects. More importantly, hindsight shows us that MACV and the JGS failed to take advantage of what would be the last opportunity for mentorship on operational support to combat operations between major US and RVNAF logistical commands. This reinforces Heiser's claim that MACV did not fully understand operational level logistics, and the potential role that the USASCs could have had in developing the RVNAF ALCs (chapter 3).

¹⁷⁵ Ibid., 201.

¹⁷⁶ ORLL, USASC Da Nang, quarterly period ending April 1971, DTIC, CARL, 2.

¹⁷⁷ Ibid., 7.

The RVNAF's incursion into Laos did not go as planned largely because of the level of enemy resistance, but also because of poor leadership and logistical challenges. A general review of the operation provides context for understanding the logistical challenges, and the RVNAF and MACV responses to them.

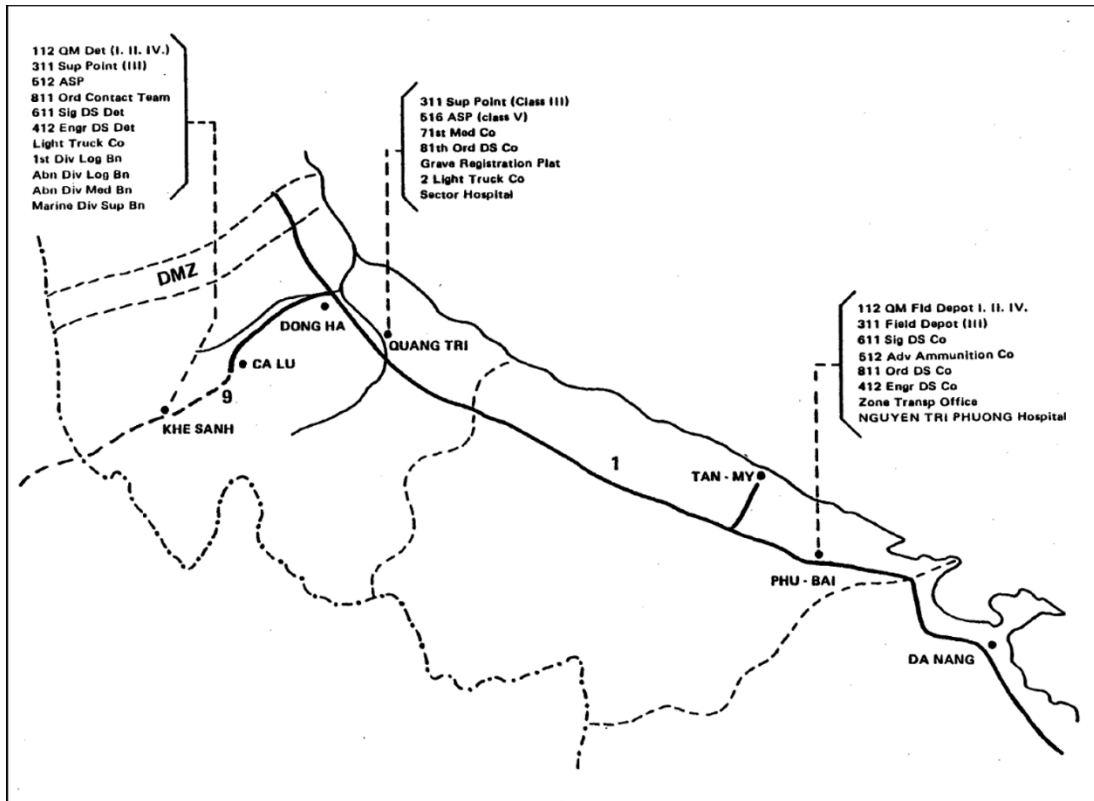


Figure 9. RVNAF Operational Logistics Units Supporting Lam Son 719

Source: Nguyen Duy Hinh, *Lam Son 719* (Washington, DC: US Army Center for Military History, 1979), 50.

The first phase of the operation went fairly well, and appropriately set the conditions for the RVNAF to cross the border along Highway 9. The US XXIV Corps seized key terrain around Khe Sanh, and reactivated the airfield, although not without a

costly delay (discussed below). Meanwhile, the RVNAF began building up their forces in Khe Sanh and Fire Support Base (FSB) Vandergrift under unexpectedly light resistance. By 7 February, US engineers made herculean achievements in building up base areas. US FSAs 26-1 and 26-2 were operational, and the armored and airborne ARVN forces coiled themselves in their attack positions to launch the invasion.¹⁷⁸

As planned, the second phase of Operation Lam Son 719 commenced at 0700 hours on 8 February 1971. By the end of the day, four mutually supporting FSBs manned by ARVN Rangers and paratroopers protected the northern flank of the 1st Armored Brigade, while another four FSBs manned by ARVN 1st Division soldiers protected the south. Within two days, lead elements of the armored column linked up with ARVN paratroopers at A Luoi along Route 9. Nonetheless, aspects of the first few days in Laos of the operation foretold the great difficulties that were to come. The US helicopters inserting the troops endured increasing antiaircraft fire throughout the area of operations, the ARVN immediately came into contact with NVA troops once they hit the ground, and the 1st Armored Brigade found that Route 9 west of the border was barely passable for tracked vehicles, and impossible for wheeled vehicles.¹⁷⁹

In the remaining weeks of February, the fighting in Laos went from concern, to significant danger, to near disaster. As ARVN casualties increased around the FSBs, the ground assault ground to a halt at FSB A Luoi. The NVA responded aggressively to protect their vital supply bases, and ultimately, found support from the North Vietnamese

¹⁷⁸ Nolan, 75-83; Willbanks, *A Raid Too Far*, 70-76.

¹⁷⁹ Hinh, 68-74; Willbanks, *A Raid Too Far*, 77-81.

political leadership to seek a decisive victory against their southern rivals. Using armored and infantry reinforcements from north and south of base area 604, the NVA poured into the ARVN FSBs. American air and artillery support from across the border narrowly averted disaster on numerous occasions through the application of tremendous firepower. Nonetheless, the weight of the NVA attacks in the north, bolstered by PT-76 and T-54 tanks overran multiple ranger and paratrooper FSBs. The ARVN leaders failed to employ coherently their own armored elements in support of their beleaguered infantryman. Things looked bleak as February ended.¹⁸⁰

With March came a new ARVN plan to airlift elements of the ARVN 1st Division into Tchepone in order to achieve the optics necessary to salvage political victories for the South Vietnamese and US Governments. The NVA kept its critical lines of communication and supply caches east and west of the town, in the forests and mountains. Nonetheless, beginning on 3 March, the ARVN and US helicopters executed a monumental air assault under unprecedented antiaircraft fire to landing zones southeast of the town to establish FSBs. By the morning of 9 March, the ARVN had secured Tchepone, having already begun to search for and destroy caches of weapons throughout the area.¹⁸¹

Having attained a significant enough milestone for the operation, General Lam presented President Thieu and the Chief of the JGS with a plan to withdraw the ARVN divisions from Laos immediately. General Abrams, reflecting the opinion of MACV and

¹⁸⁰ Willbanks, *A Raid Too Far*, 87-115.

¹⁸¹ Hinh, 89-99.

the US National Security Council, objected, hoping instead that the ARVN would stay in the vicinity of Tchepone until the rainy season began in May. Notwithstanding the Americans' advice, Thieu accepted Lam's plan for a withdrawal that took the ARVN out of Laos along Route 914B and across the northern end of the NVA's Support Base Area 611 intent on destroying supply caches along the way. Lam's plan had ARVN forces out of Laos by the end of the month, and called for elements of the ARVN 1st Infantry Division to rest and refit before another raid back into Base Area 611. Finally, the plan called for Luat's Armored Brigade to reverse course back to South Vietnam along Route 9.¹⁸²

With this plan in hand, the ARVN set out to conduct what is considered among the most difficult of military operations—the phased delay operation. The South Vietnamese soldiers and marines had to conduct a series of movements southeast and east, leaving behind the protection of the FSBs they fought so hard to establish. The NVA were unrelenting as they recognized the ARVN units' intent. Some units suffered heavily to allow for the withdrawal. For instance, the 4th Battalion, 1st Infantry Regiment, sacrificed nearly every man when NVA pressure forced them to stand and fight as a rear guard for the remainder of the regiment at FSB Lolo.¹⁸³ Furthermore, the NVA ambushed and cut off a logistics convoy of the armored column, resulting in the loss of 18 vehicles, to include four M-41 tanks, and three artillery pieces towed by M-113 Armored

¹⁸² Hinh, 98-104, 118.

¹⁸³ Ibid., 107-108.

Personnel Carriers. The heavy losses encouraged President Thieu to tell General Lam to accelerate the withdrawal.¹⁸⁴

By 25 March, all ARVN units but two reconnaissance teams had reentered South Vietnam and Operation Lam Son 719 ended. The fighting withdrawal proved difficult and costly, but the ARVN inflicted significant casualties on the NVA in turn. The ARVN I Corps suffered 7,683 casualties, 1,549 killed, over the two-month operation. The US XXIV Corps After Action Report estimated that the NVA suffered 19,360 human losses, 14,565 of which they attributed to the RVNAF and air strikes.¹⁸⁵

Throughout the operation, General Abrams remained optimistic of its value and potential effects on North Vietnam. On 20 February, after the attack had ground to a halt, but before the ARVN FSB 31 was overrun, Abrams said to Ellsworth Bunker, the US Ambassador to South Vietnam, that the operation gave them, “an opportunity to deal the enemy a blow which probably hasn’t existed before.”¹⁸⁶ On 25 March, in a briefing to renowned British counterinsurgency expert, Sir Robert Thompson, Abrams decried the negative press surrounding the operation, insisted that the mission continued to have widespread support among the rural population, and that they would bear fruits from the fight for a long time.¹⁸⁷ The fact that his feelings and reports did not match the optics of the operation did not endear him to President Nixon and Henry Kissinger. In fact, after

¹⁸⁴ Ibid., 113-114.

¹⁸⁵ Hinh, 129-131.

¹⁸⁶ Sorley, *Vietnam Chronicles*, 542.

¹⁸⁷ Ibid., 568-570.

the ARVN began their seemingly premature withdrawal, they expressed their dissatisfaction by sending then-BG Alexander Haig, the Deputy Assistant to President Nixon for National Security Affairs, to assess the reality of the situation.¹⁸⁸ The diminished faith in Abrams meant that his objections to withdrawal plans based on their effect on his “One War” Concept were ignored.

This review of the scope and scale of the plans and execution of Operation Lam Son 719 serves two purposes in the evaluation of the development of the RVNAF self-sufficiency at the operational level. First, it showed that such an operation demanded a departure from business as usual among the RVNAF ALCs and US ASCs. While both the Americans and South Vietnamese conducted operations throughout the country on a daily basis, this required a new level of planning and sophistication to perform. Secondly, unlike the Cambodian Incursion, the operational area’s distance from Saigon demanded that the US Army and RVNAF establish a logistical network above the Corps level. This defined an operational-level GTSR framework that can serve as a separate measure of the RVNAF operational level reliance and self-sufficiency.

Lam Son 719—Operational GTSR Cycle

Isolating the operational level of logistics that supported the RVNAF invasion of Laos exposes the extent to which the RVNAF relied on the US for sustainment of major operations beyond the commonly known commodities of overwhelming airpower, and the great demands of the US Army aviation elements. This is not to imply that if the RVNAF had a better logistics network, that they would have had more success in Lam

¹⁸⁸ Willbanks, *A Raid Too Far*, 139-140.

Son 719. On the contrary, reports and histories from both sides stated that the RVNAF logistical support was “adequate,”¹⁸⁹ and “effective,”¹⁹⁰ though, with some qualifications. This analysis purposes to provide a framework with which to evaluate an army’s true operational capability.¹⁹¹

Operational generation during Lam Son 719, like during the Cambodian Incursion, did not constitute a major factor since the RVNAF were operating largely within their strategic GTSR framework already. However, the fact that the logistical plan called for the US to provide all support to the RVNAF for the first ten days of the operation exposed a shortcoming in the agility of the latter’s local procurement. While general sustainment items such as gasoline and ammunition can be cross-leveled among armies, particularly common-user items, it is different when dealing with major end items, categorized as “Class VII” in the US, since they require higher levels of accountability. The USASC Da Nang ORLL reported that since ARVN was not normally a customer under the USASC, the procedures for transferring major end items complicated and delayed receipt of the items. The USASC Da Nang experienced delays in transferring equipment because of simultaneous requirements to seek approval by the MACV J-4, and for release by a directive generated from the US Inventory Control

¹⁸⁹ US XXIV Corps AAR, 10-D-1.

¹⁹⁰ Khuyen, 208.

¹⁹¹ Refer to chapter 1 to discriminate the GTSR cycles at the tactical, operational, and strategic levels.

Center, Vietnam.¹⁹² While this is just as much an indictment on the Americans, it revealed RVNAF dependency.

The most glaring example of the RVNAF's dependence on the US in the operational GTSR cycle is in the "Transport" phase, which includes the establishment of, operation along, and clearance of bases and lines of communication toward points where supplies can be handed off to tactical units, in this case, below the corps level. This dependence is most clearly evidenced in their shortcomings in the management of theater distribution assets; in receiving, processing, and clearing ports; and in their ability to clear, develop, and maintain main supply routes for a major operation. Where possible, the Americans continued to assist with general success, though it proved calamitous when they could not.

Key bases and lines of communications that already existed in the RVNAF Military Region I made up the distribution network that supported the invasion of Laos, along with some additions to support the large operation. The bases included different types of ports. The primary seaport was the deep draft port of Da Nang, which could then send supplies along the coast to the shallow draft ports of Tan My and Dong Ha. After arrival and clearance from the ports, truck units carried supplies along Route 1 and onto Route 9 to depots and support areas at Phu Bai, and Quang Tri, on their way to Khe Sanh. From there, the tactical-level support commands organic to the divisions could receive and distribute the supplies. Alternatively, supplies could be landed directly at Khe Sanh

¹⁹² ORLL, USASC Da Nang, quarterly period ending April 1971, DTIC, CARL, 6.

by fixed wing airplanes (primarily C-130s), or by helicopter flying from any of the major support areas in the country.¹⁹³

The reports on the ARVN's contribution to the transportation network make it hard to discern how effective they truly were. The US XXIV Corps After Action Report stated, "The [Main Supply Route] (QL 9) between Khe Sanh and Vandergrift was identified as a potential problem area . . . The road capacity could not by itself achieve the computed daily requirement of 1,250 tons (US Forces only). Consequently, the importance of the airfield was identified."¹⁹⁴ The US and RVNAF delivered 9,400 and 1,600 short tons, respectively, by C-130 flights into Khe Sanh during the operation to account for this limitation. The logisticians faced challenges early in the operation because US engineers could not rehabilitate the airfield fully until 14 February.¹⁹⁵ Regardless of the delay, the airport's capacity was insufficient to supply such a large operation. These vast quantities of supplies required surface transit from Da Nang to the forward supply areas.

The US XXIV Corps report addressed the daily requirements, stating that the ARVN commonly surpassed their goal of 200 trucks a day, while the US generally fell short of their 200 truck requirement until March.¹⁹⁶ The 400 truck per day requirement only accounted for the final leg from Ca Lu to Khe Sanh. Apart from the convoys on this

¹⁹³ Khuyen, 204-207.

¹⁹⁴ US XXIV Corps AAR, D-7.

¹⁹⁵ Khuyen, 206-207.

¹⁹⁶ US XXIV Corps AAR, D-7.

leg, the ARVN also provided shuttle convoys between the rearward bases. Khuyen accounts for this section of the transportation phase, describing how ARVN medium truck companies operated between Da Nang, Hue, and Quang Tri.¹⁹⁷ He goes on to describe the general timeline for a Quang Tri—Khe Sanh convoy as departing Quang Tri at 0500 hours, arriving at Khe Sanh for offloading at 1300, then departing again at 1600 hours to arrive back in Quang Tri at 2100 hours.¹⁹⁸ It seems that the RVNAF ALC I provided sufficient truck capacity for the operation, but they had an advantage as the “supported” force in some of the details relating to convoys.

The American logisticians complained about the fact that the ARVN used the plan to reserve for themselves the daylight hours along these supply routes. Despite entreaties to modify the times to give the Americans more daylight, the American convoys had to contend with the inherent dangers of transiting these contested areas at night.¹⁹⁹ Had the USASC and RVNAF ALC possessed a better relationship in the years prior to this operation, and had the opportunity to address this in the planning phases, perhaps they could have reached a more amicable arrangement.

Students of military logistics know that trucks and planes are not ideal platforms for the large scale distribution of supplies. Efficiency will generally call for platforms

¹⁹⁷ The existence of these medium truck companies does not match the graphics of support units provided by Khuyen (198) and Hinh (50). Both depict only four light truck companies between Khe Sanh, Quang Tri and Phu Bai. It seems clear that Khuyen means to reference ARVN medium truck companies, but it is possible that he is referring to Americans.

¹⁹⁸ Khuyen, 206.

¹⁹⁹ Nolan, 220.

with larger capacities over large stretches of the supply line, such a railroads and barges. The logisticians supporting Lam Son 719 recognized that shallow draft ports allowed for coastal shipping to deliver mass quantities of supplies closer to their objective, thereby reducing the need for trucks. Over 74,000 short tons of supplies were offloaded at Tan My and at Dong Ha. While ARVN proved capable of providing trucks in support of the operation, they could not claim the same for watercraft, contributing only two Landing Ship Tanks, a handful of “Landing Craft Mechanized” boats. Therefore, US ships transported more than 70 percent of ARVN cargo that landed at Tan My, and all of the 18,000 short tons that landed at Dong Ha.²⁰⁰ Transporting supplies by ship was not just more efficient, but also put up to 100 miles (the shoreline distance between Da Nang and Dong Ba) of the supply line on an uncontested route. This illustrates how an investigation of the upper echelons of the supply system can expose the true level of dependence of a client military.

Martin Van Creveld’s seminal work *Supplying War* reminds that it is not enough to merely transport supplies, but in fact, the most difficult aspects of the transport phase are clearing, processing, and transferring the equipment when they arrive at each node.²⁰¹ The RVNAF relied heavily on the Americans to do much of this at most points, and

²⁰⁰ Khuyen, 207. A note within a staffing document concerning the Logistics section of the 1973 MACV Command History shows that MACV attempted to remedy this a year later with the transfer of utility landing craft to Da Nang, and barges generally in mid-1972. See “Disposition Form and Inclosures, Logistics Directorate: Plans and Programs Division” - re: MACDL Command History - Record of MACV Part 1, 8 February 1973, Folder 0623, Box 0027, TTUVVA, accessed 29 April 2016, <http://www.vietnam.ttu.edu/virtualarchive/items.php?item=F015800270635>.

²⁰¹ See Van Creveld, Chapters 3 and 4.

exclusively at the sea and air ports. The 5th Transportation Command (Terminal) oversaw all of the port clearance operations at the sea ports. This included receiving supplies from units like the 329th Heavy Boat Transportation Company, based out of Da Nang, then transferring the materiel to the aforementioned truck companies.²⁰²

Even the Americans struggled with the monumental tasks associated with clearing and transferring the supplies. Specifically, they found that they lacked sufficient forklifts to efficiently lift the supplies off of the many trucks that made it to the FSAs. Colonel Morton provided an account for Nolan's *Into Laos* that pointed out that unlike truck drivers, forklifts require skilled operators, and their own line of repair parts. Because of the shortage of forklifts, the heavier trucks stacked up at their destinations, sometimes waiting for days to be unloaded.²⁰³ This included a dangerous situation where "almost every 15 ton semi trailer in Vietnam" was waiting to be unloaded at one of the forward ammunition supply points.²⁰⁴ The American logisticians went to great lengths to address these problems. The ARVN simply lacked the capacity to execute these operational level logistics tasks.

The final aspect of the transportation phase in Operation Lam Son 719 that exposed RVNAF shortcomings in this higher echelon of logistics was related to their inability to establish, develop, and maintain a main supply route. Very few supply convoys traveled west out of Khe Sanh and across the Laotian border because of the poor

²⁰² Stanton, 222, 228.

²⁰³ Nolan, 221-222.

²⁰⁴ Oral History, Morton, 16.

quality of Route 9. Even though the Armored Brigade had the ARVN 101st Engineer Battalion under their operational control, the engineers were incapable of improving Route 9 to allow wheeled traffic. Poor weather during the first days of the operation exacerbated this problem. Regardless of this shortcoming, the plan for Lam Son 719 assumed that only the Armored Column would have been supplied by ground transportation, while all of the other units would receive their supplies by helicopters flown by Americans.²⁰⁵ This vital shortcoming of the RVNAF beyond where they could call on the Americans proved to have cascading effects with respect the redeployment from the theater, to be discussed below.

According to the GTSR cycle at the operational level, after the theater level transportation assets get the soldiers and materiel to weigh stations and FSAs, they must then be sustained. The GTSR discussion in chapter 1 laid out how the tactical level GTSR cycle emerges in this operational phase, just as the operational-level GTSR emerged in the strategic sustain phase. However, a military force must have theater-level organizations that can perform supply functions, such as warehousing, ammunition supply points, commodity yards, and upper-echelon maintenance capability. The logisticians must ensure that the organization's capacity is commensurate with the complexity of the operation, and they must synchronize their efforts to optimize efficiency and effectiveness.

The RVNAF logistics network, despite how hasty it came together, seems to have provided sufficient capability and capacity to support the corps-level operation into Laos,

²⁰⁵ Hinh, 56, 68.

but lacked the coordination and synchronization needed for a combined arms airmobile, armored operation. In addition, the shortcomings in operational-level redeployment (discussed below) meant that many maintenance demands and considerations went untested.

The 1st RVNAF ALC proved capable of deploying the appropriate functional units to adjust from their standard configuration in support of the operation. This included positioning the 311th POL Field Depot and the 71st Medical Company at Quang Tri, and the 512th Ammunition Company to manage a forward ammunition supply point at Khe Sanh. Additionally, they deployed the 112th Quartermaster Field Depot and 811th Ordnance Direct Support Company at Phu Bai that subsequently deployed detachments to Khe Sanh.²⁰⁶

Khuyen identified that despite their ability to field an appropriate array of separate supply and service support elements, the 1st RVNAF ALC lacked the capacity to field FSAs with general support capability, such as the 26th GSG's FSA 26-1 and FSA 26-2. This limited their coordination capability forcing the RVNAF ALC Commander Colonel Thuong to personally help coordinate and expedite in numerous places. The Americans took measures to assist, through coordination centers and by collocating depots. Nonetheless, the ARVN I Corps Commander complained about his inability to get a hold of his RVNAF ALC Commander.²⁰⁷

²⁰⁶ Khuyen, 198-199.

²⁰⁷ Ibid., 201, 209.

The supply elements also had their fair share of problems that demonstrated some immaturity at operational level logistics. The USASC Da Nang ORLL covering Lam Son 719 reflected that the 1st RVNAF ALC and USASC Da Nang had different pipelines, stockage schemes, and resupply criteria with respect to ammunition.²⁰⁸ This referred to General Lam's unexpected demand to have on hand 15 days of supply, as opposed to seven, of 105 mm and 155 mm ammunition, and caused the transportation woes described by Colonel Morton (see above).²⁰⁹ In addition, the ARVN I Corps' expected ammunition supply rate for these calibers tripled the US rate for 105 mm and nearly doubled the US rate for 155 mm.²¹⁰ The ARVN's inordinate amount of ammunition proved lethal during the operation when on 18 February, a NVA sapper attack destroyed 700 tons of ammunition at Ammunition Supply Point 101.²¹¹ After a similar incident on 8 March that killed one soldier, wounded three, and destroyed 1,600 mortar rounds and over 391,000 rounds of small arms ammunition, Abrams decided to send a note to the Chief of the RVNAF JGS reviewing the losses sustained over the previous month due to poor ammunition storage.²¹² This was among a number of the issues that presented challenges for the RVNAF logisticians as they transitioned to the redeployment phase.

²⁰⁸ ORLL, USASC Da Nang, quarterly period ending April 1971, DTIC, CARL, 7.

²⁰⁹ Khuyen, 203.

²¹⁰ US XXIV Corps AAR, 10-D-2.

²¹¹ US XXIV Corps AAR, 3-D-1; Nolan, 222.

²¹² Sorley, *Vietnam Chronicles*, 558.

Operational level redeployment in the GTSR cycle consists of two major components; the evacuation from the battlefield of damaged and destroyed materiel (to include wounded and killed soldiers), and the retrograde of soldiers and materiel that were built up in support of major operations. The RVNAF performed abysmally at the former, but relatively well at the latter. Their reliance on the US persisted. As discussed above, though, the Lam Son 719 example included a fiercely contested withdrawal all the way to the Vietnamese-Laotian border.

Among the most enduring images of the operation, and the war, related directly to this phase of the GTSR cycle. In multiple instances, journalists embedded with the ARVN caught and published pictures of South Vietnamese soldiers clinging to the skids of American helicopters as they lifted out of landing zones throughout the area of operations.²¹³ The helicopters in these cases and throughout the operation served as the only means of evacuating wounded and dead soldiers from the battlefield. After landing to drop supplies, the men on the ground would load as many casualties as possible until the antiaircraft fire forced them to leave.

The initial prohibition against evacuating killed ARVN soldiers by helicopters created some problems according to the XXIV Corps AAR. But the fact that aerial evacuation became the sole means of evacuating those bodies, they adjusted. The AAR attributed some of these problems to a natural aversion of the South Vietnamese to handle dead bodies.²¹⁴

²¹³ Willbanks, *A Raid Too Far*, 98-99.

²¹⁴ US XXIV Corps AAR, 10-D-2.

Their performance with respect to evacuating equipment proved equally deplorable. The tale of ARVN's losses in vehicles is staggering. These include: 87 M113 Armored Personnel Carriers, 54 M41 tanks, 70 105 mm Howitzers, 17 D7 Bulldozers, and 139 2-1/2 Ton Trucks.²¹⁵ The numbers from the AAR conflict with what Abrams received on 23 March. The briefer told Abrams that an advisor personally counted at the border that the ARVN went in with 62 tanks and came out with 35.²¹⁶ In *A Better War*, Sorley made a disturbing claim that most of these losses were not due to heavy combat, but that ARVN units simply abandoned them when they broke down or ran out of gas.²¹⁷ Khyen later wrote that the vehicle were left behind, "due to tactical expediency, rough terrain, and the lack of evacuation resources."²¹⁸ Apart from the indictment on tactical sustainment, this reflects the lack of operational redeployment in the ARVN infrastructure.

The other component of redeployment phase of the operational level GTSR cycle is the retrograde from the battlefield of the men and equipment that have been built up for a large operation. This process is delicate, as it often must begin while units continue to conduct combat operations. While it is best to have multiple days of supply on hand while units are in contact, logisticians prefer to expend those days of supply as the operation comes to a close. Meanwhile combat units will have to account for equipment

²¹⁵ Ibid., 6-D-1.

²¹⁶ Sorley, *Vietnam Chronicles*, 566.

²¹⁷ Sorley, *A Better War*, 260.

²¹⁸ Khuyen, 208.

and turn in supplies in such a way to allow logisticians to transport the materiel out efficiently and effectively.

In the case of Lam Son 719, two complimentary factors influenced this aspect redeployment phase; the failure to properly plan for the retrograde, and the unexpected acceleration by General Lam to conclude the operation. The US XXIV Corps AAR stated, “One of the most serious and overlooked areas during [the withdrawal] phase was the retrograde and backhaul of equipment. A letter of instruction covering the retrograde operations was published by [USASC Da Nang] on 11 March. It should have been part of the original plan.”²¹⁹ While significant coordinated efforts resulted in the eventual successful retrograde of the equipment, they experienced confusion and some inefficiencies.²²⁰ In fact, the 1st RVNAF ALC only learned of Lam’s decision to curtail the operation through American channels.²²¹ In one case, a US advisor had to convince his ARVN advisees to retrieve 170 truckloads of equipment from an abandoned base.²²²

The ARVN logisticians seem to have taken on a fair share of the transportation requirement during the retrograde. Traffic monitors reported that the ARVN executed 621 convoys with 22,858 vehicles along Route 9 during the withdrawal phase, with the last element leaving Khe Sanh on 9 April.²²³ It can be assumed though that, like in the

²¹⁹ US XXIV Corps AAR, D-6.

²²⁰ Ibid., D-4, D-6.

²²¹ Khuyen, 208.

²²² Clarke, 475.

²²³ Khuyen, 208; US XXIV Corps AAR, D-8.

transport phase, the Americans had to assume much of the coordination and management of this effort. The US XXIV Corps AAR gives credit for coordination and “an outstanding effort by the 26th GSG.”²²⁴

This review of the RVNAF’s operational level GTSR cycle demonstrates the extent to which they relied on the Americans for the execution of upper echelon logistics in support of a major combat operation. Operation Lam Son 719 presented a very difficult challenge for the fledgling army and its logistics infrastructure. It included complex combined arms delivered in tough terrain against a determined enemy. While they were capable of executing some tasks in the GTSR cycle at this level, they struggled to manage and synchronize each phase.

Conclusion

The planning and execution of Operation Lam Son 719 revealed MACV’s persistence in missing opportunities to develop the RVNAF’s operational level logistics, and the extent to which the RVNAF relied on the Americans to perform these critical capabilities. The decisions related to operational security during planning of the operations indicated that MACV misunderstood or underestimated the role of the 1st RVNAF ALC in supporting the operation. Furthermore, it implied that despite what should have been 18 months of close coordination through the CLIP, CLOP, and BUDDY Project, the RVNAF’s operational level logistics infrastructure still proved adolescent. The review of their reliance on the Americans during the execution of Lam Son 719 provides a more nuanced understanding of the state of RVNAF self-sufficiency.

²²⁴ US XXIV Corps AAR, D-4.

The US and GVN leaders did not expect that the RVNAF to be self-sufficient at this time. The year 1973 remained their goal for this realization. Nonetheless, the coordinated, often ad hoc, efforts to support this operation do not reflect well on the effectiveness of the MACV plans to improve the RVNAF logistics infrastructure writ large. While the operation provided the RVNAF logisticians with invaluable experience in supporting dynamic large-scale operations, the costs may have outweighed the benefits.

The political outcome of the operation restricted the extent to which the plans and programs discussed in chapter 3 would carry forward. President Nixon used the best aspects of the operation to claim his Vietnamization program a success, and accelerated his withdrawal timelines. In turn, the USASCs increasingly diverted their attention to the very difficult task of supporting the strategic redeployment phase of the US GTSR cycle. While the greatest test of the Vietnamization policy would come the following year with the NVA Easter Offensive, the state of RVNAF operational level logistics in the first months of 1971 revealed the difficulty of the quest toward self-sufficiency, and the consequences of MACV's late start at addressing these capabilities.

CHAPTER 5

CONCLUSION

You will not find it difficult to prove that battles, campaigns, and even wars have been won or lost primarily because of logistics. That can be demonstrated from any number of different situations. Your main problem will be to make your account readable and interesting both to soldiers and laymen.

— General Dwight D. Eisenhower, as quoted in *For Want of a Nail*

On 12 August 1969, US Defense Secretary Laird approved the plan for the expansion, improvement, and modernization of the RVNAF with a force structure by the end of fiscal year 1971 numbering 992,837 men. Multiple plans that sought to address the new expectation for the RVNAF to face both internal and external threats as the US began withdrawing from the country influenced Laird's decision. American and South Vietnamese leaders understood the challenges associated with helping the RVNAF achieve self-sufficiency, and by 1970, the US Joint Chiefs of Staff knew that their counterparts still had a long way to go.²²⁵ This work explained how, and evaluated how well, MACV and the RVNAF approached this goal. The conclusions from this research shed more light on the challenges of the Vietnamization policy and its implementation, provide a new framework that can aid in thinking about military logistics generally, and portray themes with contemporary value related to warfare and military affairs.

While the Americans developed a multi-faceted plan to Vietnamize operational level logistics, they did a poor job implementing the concept from 1968-1971. This was

²²⁵ Willard Webb, *The Joint Chiefs of Staff and the War in Vietnam: 1969-1970* (Washington, DC: Office of Joint History Office of the Chairman of the Joint Chiefs of Staff, 2002), 126-129.

despite encouraging efforts by the 1st Log Cmd throughout the country. The lack of synchronization between MACV and its major logistical commands, and their failure to recognize the natural potential in leveraging logistical units resulted in an over-reliant RVNAF to defeat the NVA and the VC. Some argued that Operation Lam Son 719 indicated a certain level of readiness. When analyzed through the lens of the GTSR cycle, these perceptions proved to be superficial.

While this aspect of Vietnamization did not go well, the conditions in which the logisticians and advisors operated complicated the overall effort. The American logistical system still reeled from the early decisions to surge in combat troops early, while assuming risk in the logistical organization.²²⁶ General Joseph Heiser, Jr., received a mandate to fix the system during his tenure with the 1st Log Cmd. The 1st Log Cmd, a source of great advisory potential, fell under USARV. This led to organizational friction. Finally, the demands of the withdrawal timeline had two major consequences. Tough decisions about which troops should be sent home to meet troop reduction levels led to the disestablishment of the critical 1st Log Cmd Headquarters just when its subsequent commanders could have provided command influence to continue Heiser's programs. Furthermore, the removal of US equipment and the painful process of transferring equipment to the RVNAF consumed the logisticians' attention, thereby relegating their potential to achieve effective Vietnamization of the RVNAF operational-level logistical capability to a low priority.

²²⁶ Westmoreland, 185-188.

Notwithstanding the challenges inherent in the theater, and some initial resistance, MACV eventually produced plans aimed at improving the RVNAF logistics systems at all levels. Each had some potential but myriad problems plagued the process. The CLOP took on some short term tasks, and more importantly, established a combined reporting mechanism to evaluate progress. The minutes of their meetings presented in chapter 3, though, imply questionable commitment between the advisors and their advisees, particularly by the leaders' comments on the lack of coherent measures of effectiveness.

The CLIP seems to have had a more comprehensive approach to improving the RVNAF logistical capability, with tasks spread across the services, subordinate tasks, and realistic deadlines. On its surface, the existence of a short-term and a long-term plan implies that MACV possessed a coherent collection of plans. A closer review, however, exposes a lack of synchronization in the Master Plan. Neither plan referred to the other, and the more comprehensive CLIP fell strangely subordinate to the CLOP in the reporting regimen. It seems that the MACV-J4 lacked sufficient personnel to influence progress effectively.

Unfortunately, the CLOP and CLIP failed to take advantage of the natural potential in the US Army's theater logistics command for providing training to improve the RVNAF's logistical system, particularly with a strong, forward-looking leader such as LTG Joseph Heiser. The 1st Log Cmd had been performing OJT for civilians and RVNAF soldiers alike for years. Theater logistics organizations exist in locations that inspire connections as they operate ports, coordinate convoys, and plan trains. Each of the subordinate commands had for years developed programs to improve relations with civilians in their neighborhood, to include dealing with local politics on occasion.

General Heiser proved how the right individual with the right experience can make a dramatic impact. His prescience and proactive approach presented an opportunity to cultivate a program that, if properly funded and supported with command emphasis, could have resulted in a more capable RVNAF logistics network for the tests that would come from 1971. Despite bureaucratic friction, he created a program that proved to be a talking point for senior commanders, and to the US Congress. While this is not to say that unreserved support for Heiser's Project Buddy would have meant victory, it should be considered among critical opportunities missed in the US Army's efforts to establish a self-sufficient RVNAF capable of defending itself from internal and external threats.

Operation Lam Son 719 demonstrated the lack of synchronization in MACV's planning, and its apparent misunderstanding of the role of the operational logistical commands. While numerous histories of the operation showed the extent to which the RVNAF relied on the Americans for airpower, firepower, mobility, and tactical resupply, the analysis of their operational level logistics using the GTSR cycle in chapter 4 exposed the depths of this reliance in the first months of 1971.

Areas for Further Research

This study leaves much yet to be discovered both with the question at hand and as it applies to a larger picture. While the MACV records have largely been digitized and made readily available, the relation between MACV and the 1st Log Cmd as they wrestled this problem could be better understood with a deeper analysis of the key commands' primary sources. Jeffrey Clarke, in *Advice and Support: The Final Years*,

1965-1973, indicates such files exist in the Southeast Asia Branch of the Center for Military History, and at the Washington National Records Center in Crystal City.²²⁷

While Operational Lam Son 719 represented a significant milestone to evaluate of operational level logistics, the years following provide another opportunity for research. While the elements of the USASCs redirected their attention almost exclusively on withdrawing the men and materiel from the country, MACV continued its efforts to improve the RVNAF system. A GTSR cycle analysis of the RVNAF in their reaction to the NVA's 1972 Easter Offensive and in the final campaign would be useful. This study should certainly include Khuyen's monograph, the 1972 Report to Congress on "Logistics Aspects of Vietnamization--1969-72," and any other available primary sources.²²⁸

Finally, this study provides only partial insight into the logistics problems associated with the Vietnam War. While General Heiser's contribution to the Vietnam Studies Monograph Series in the years immediately following the war provides tremendous understanding of this monumental challenge, the widespread and availability and declassification of the MACV records and surviving veterans offer an incredible resource for historians in the midst of the 50th Anniversary of America's involvement. The definitive history of military logistics in the Vietnam War has yet to be written.

²²⁷ Clarke, 430n.

²²⁸ Comptroller General of the United States, "Logistic Aspects of Vietnamization--1969-72," 1972.

Contemporary Value

This study provides contemporary value in two major ways. Chapter 4 proved that the GTSR Cycle is a viable construct for thinking academically and critically about military logistics. While chapter 4 addressed mainly the RVNAF's operational level logistics in one major operation, the construct can further serve to help think about the challenges of generating, transporting, sustaining, and redeploying troops and materiel, at the tactical and strategic level in any conflict. This presents options for courses that wish to teach the art and science of logistics in warfare by providing a common framework with which to analyze battles, campaigns, and wars throughout military history.

In addition, the study should help militaries that conduct Security Force Assistance (SFA) activities, particularly for those host nations in the midst of a civil war or insurgency, evaluate their target audience's true capabilities. US Joint Doctrine defines SFA as the Defense Department's "contribution to a unified action effort to support and augment the development of the capacity and capability of foreign security forces and their supporting institutions to facilitate the achievement of specific objectives shared by the US Government."²²⁹ The doctrine provides a framework for assessing security force assistance and seven imperatives. The comprehensive framework for assessment ensures that the advising force considers the organization, training, equipping, rebuilding and building, and advice and assistance to the host nation. The penultimate imperative in the

²²⁹ US Department of Defense, *Foreign Internal Defense* (Washington, DC: US Joint Staff, 12 July 2010), I-16.

doctrine is “Sustain the Effort,” which includes sustainment of the support effort, and the host nation’s ability to reach self-sufficiency.²³⁰

Chapters 2 and 3 provide some lessons that may aid US forces engaged in SFA. Chapter 2 describe how the Americans helped the Vietnamese develop the framework with which they would generate, transport, sustain, and redeploy their military power beyond that which the French established under the aegis of colonialism. Chapter 3 lays out MACV’s approach to improving the logistical capability of the Vietnamese with some examples of tasks, and reporting and tracking mechanisms. These could provide a starting point for those charged with establishing a way ahead for host nation militaries seeking military self-sufficiency.

The Vietnam War continues to provide abundant lessons about war, warfare, and those who fight. The terrain, weather, enemy, and the war’s protracted character demanded much of those who sustained the conflict. Thorough analysis of the sustainers’ challenges reveals the art and science of logistics in war, beholden to the influences of leadership, planning, morale, and will, as much as to formulae and capacity calculations. Leaders of all branches in the US Army must consider the tyranny of logistics if they want to leverage its benefits in pursuit of objectives, and avoid the pitfalls that can very well lead to failure and defeat.

²³⁰ Ibid., VI-32 – VI-33.

APPENDIX A

COMBINED LOGISTICS OFFENSIVE PLAN EXCERPT

HEADQUARTERS
UNITED STATES MILITARY ASSISTANCE COMMAND, VIETNAM
OFFICE OF THE COMMANDER
APO SAN FRANCISCO 96222

22 JUL 1969

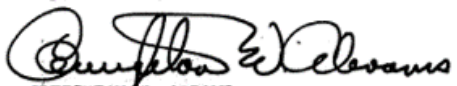
MACJ4

SUBJECT: Logistics Offensive

SEE DISTRIBUTION

1. The United States Government has invested extensively in improving the Combat Capability of RVNAF. We must now concentrate our efforts on improving RVNAF logistics support to complement the increased combat capability.
2. The MACV staff in conjunction with the RVNAF JGS has developed the attached Combined Logistics Offensive Plan to initiate the actions necessary to improve logistics support. To achieve the desired results it is necessary that commanders and advisors at all echelons demonstrate a positive and determined attitude toward logistics improvement. Aggressive execution, first hand knowledge of the plan by US advisors, and a combined staff capability to measure progress will assure the success of the Logistics Offensive.
3. The plan has been approved by both headquarters for execution. However, formal signing of the plan is being deferred while arrangements for dissemination of information pertaining to the launching of the logistics offensive are being coordinated. To preclude delay in implementing the plan, all echelons of the US Advisory Effort are to immediately initiate those tasks which are a US responsibility.

1 Incl
as


CREIGHTON W. ABRAMS
General, United States Army
Commanding

DISCUSSION OF PROBLEMS

This inclosure contains 121 service problems. Individual problem sheets were written based upon input from field advisory elements. Forty-three per cent of the total RVNAF problems apply to two or more services. These common problems are identified by service on the following Index of Common Problems.

Numbers on the chart represent a common problem applicable to two or more services. These numbers further show whether or not a individual problem sheet has been prepared for that service.

Common problems that exist in a service for which no problem sheet was prepared by that service are indicated with an X. In this case, the number appearing in a sister service column indicates the applicable problem sheet which can be used as a guide to formulate specific problems and corrective action.

The Index of Common Problems is followed by a list of Causes of Problems which are used on the service spread sheets. The separate Army, Navy and Air Force sections have separate Problem Spread Sheets which identify the cause of the problem and in the Army's case the level affected within the logistic structure.

INDEX OF COMMON PROBLEMS

<u>ARVN</u>	<u>VNN</u>	<u>VNAP</u>	<u>ALL</u>	<u>ARVN</u>	<u>VNN</u>	<u>VNAP</u>	<u>ALL</u>
1	X			36	X		
2	X			40	X		
3	X			41	X		
4	X			43	X		
5		2		44	X		
6		2		45	15		
7	2	X	X	46	16		
8	3			48	X		
10	X			49	X		
12	X			50	14		
13	X			52	14	X	X
14	X	X	X	53	X	11	X
15	X			54	14		
16	X			58	X		
17	6	X	X	60	X		
18	X			61	X		
20	X			62		X	
23	X			63	X		
24	X			64	20		
25	X	3	X	65	19		
26	X			66		22	
27	X	X	X	70	X	X	X
28	X			71		26	
30	X			72	21		
31	X			73	17	9	X
33	X			X		23	

SUMMARY

TOTAL SERVICE PROBLEMS	121
TOTAL COMMON PROBLEMS	52
PROBLEMS COMMON TO ALL SERVICES	9
PROBLEMS COMMON TO ARVN AND VNN	46
PROBLEMS COMMON TO ARVN AND VNAP	15

CAUSES OF PROBLEMS									
ARTV PROBLEMS									
57. The ammunition supply rates (ASR's) are not enforced.	C	H	H						
58. ARTV does not distribute ammunition suspension notification information.	C	C							
59. A&DSL Companies are being tasked to support JGS Reserve Units.	H	H	E						
60. TGE authorization compliance and actual equipment use by unit is not known.		C	C			H		C	
<u>MAINTENANCE</u>									
61. The Preventive Maintenance Program has not been enforced.	C	C	H	C	C	C		C	R
62. The Regulations and Supply Procedures applicable to tool replacement are too restrictive.		H				A	R		E
63. Direct support units do not have enough maintenance float assets.		H	H			R			
64. Routine maintenance of facilities program is not effective.		C	C	C		C			
65. Required maintenance capacity at base depots is not known.	H	A	A			A			
66. EVNAF does not possess the capability to provide valid and timely repair and calibration of maintenance test equipment.	H	H	A		A	A	A	A	R

LEVEL AFFECTED

C - All
H - JGS-CLC
A - Technical Service
R - Corps-ALC
G - ARTV Unit
E - NY/TY

A-2-7

ARVN
PROBLEM
65

PROBLEM: Required maintenance capacity at base depots is not known. Maintenance and improvement of facilities at the 80th ORBD have been severely limited for several years. The resultant deterioration of buildings and utilities has adversely affected working conditions and backlog of 212 major engineer terms presently exists at the 40th BD. This total has been on the increase. Recently, a US quick reaction team of 13 people was furnished by USAMC to assist the depot. With the service of this team the backlog has declined slightly.

SOLUTION: Determine required maintenance capability and develop a master plan for upgrade of facilities and equipment. JGS consider approval of 80th ORBD request for construction and maintenance projects. JGS/CLC/OCE should review and be prepared to support the recommendation of the current depot master planning which is underway at the 40th EBD. Consideration of ultimate workload will determine facilities required.

ACTION:

1. High level approval for construction and maintenance projects for the 80th ORBD.

Principal Action Agency: JGS/CLC Completion Date: 1 October 1969
OAD/MACJ4

2. JGS support recommendations of master planning group soon to be forthcoming from 40th EBD and expand program to all maintenance facilities.

Principal Action Agency: JGS/CLC Completion Date: 1 December 1969
EAD/MACJ4

A-1-82

ARVN
PROBLEM
66

PROBLEM: RVNAF does not possess the capability to provide valid and timely repair and calibration of maintenance test equipment. "A" type calibration is now provided by the US Army from Okinawa. Type "C" calibration is almost completely neglected or arranged by individual advisors. A very limited capability exists. However, considerable improvement is necessary in the equipment area and the training of personnel.

SOLUTION: Develop an effective calibration system within RVNAF.

ACTION:

1. Allocate equipment and train personnel within the RVNAF to provide an organic "C" calibration capability at division level and at the ALCs.

Principal Action Agency: JGS/CLC Completion Date: 1 December 1969
MACJ4

2. Program the formation of mobile calibration teams to provide "A" calibration capability.

Principal Action Agency: JGS/CLC Completion Date: 1 March 1970
MACJ4

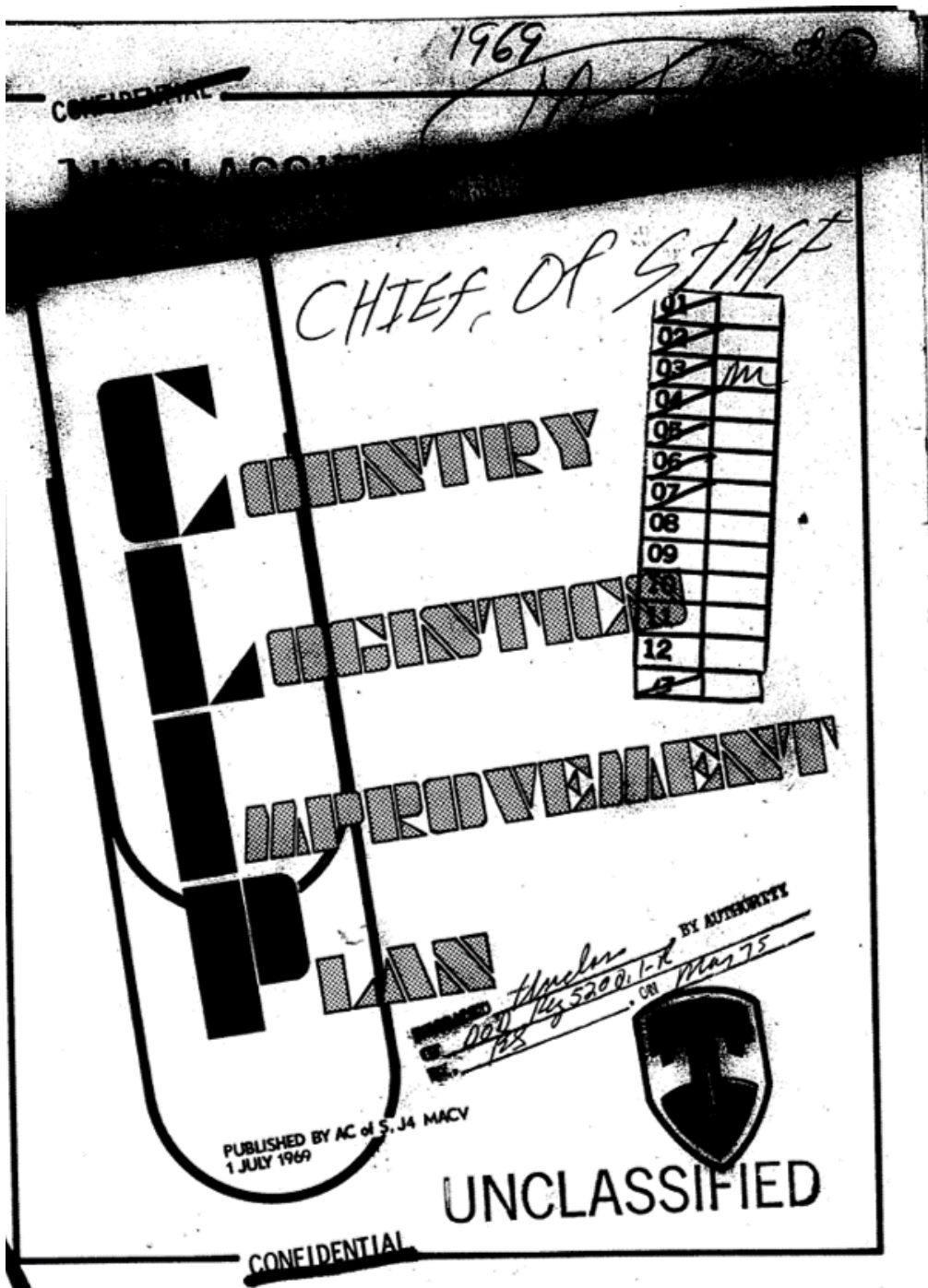
In coordination with: MACMA

A-1-83

Source: MACV Plan, Logistics: Logistics Advisory Directorate - Combined Logistics Offensive - Record of MACV Part 1, 22 July 1969, Folder 0423, Box 0026, TTUVVA, accessed 17 May 2016, <http://www.vietnam.ttu.edu/virtualarchive/items.php?item=F015800260423>, Cover letter, i-ii, A-1-7, A-1-83, A-1-84.

APPENDIX B

COUNTRY LOGISTICS IMPROVEMENT PLAN EXCERPT



Project No. 8-1

Project Title: Transportation Training Improvement (OJT with U.S. Units)

Date Established: 1 April 1969

Completion Date: 1st QTR FY71

Responsible Agency:

Host Country: Director of Defense Transportation

U.S.: HQ MACV J46 (Transportation Advisory Division)

PROJECT OBJECTIVE: To train a selected group of ARVN TC personnel to operate and maintain LCUs, tug boats, and equipment aboard the Floating Maintenance Ship (FMS). The personnel trained with US units will form a nucleus that will enable ARVN to operate and maintain its floating craft with maximum efficiency.

BACKGROUND/CURRENT SITUATION: The ARVN Transportation Corps fleet is increasing more than 600% between 1968 and 1970. No formal training program exists within ARVN to train boat operators and maintenance personnel. While the Vietnamese Navy has made training capability available to ARVN, that capability is not sufficient to meet all requirements. Off-shore training is being utilized to the maximum that qualified personnel can be obtained. Currently 10 ARVN Aspirants are undergoing tugboat training with the 4th Terminal Command. At Vung Tau, an ARVN 1LT is undergoing OJT as harbormaster, 18 Aspirants and enlisted men are undergoing LCU training, while 6 Aspirants and enlisted men are undergoing training aboard the FMS located at Vung Tau. ARVN students training at Vung Tau are training with the 159th Transportation Battalion (Terminal) and Detachment 2 United States Army Marine Maintenance Activity (USAMMAV).

COURSES OF ACTION:

- 8-1-1 Determine the capabilities of the existing training program with emphasis directed towards the shortcomings and problem areas.
- 8-1-2 Establish corrective guidelines by which the training program will become formalized.
- 8-1-3 Establish the revised training schedule to include sponsoring unit, location, material and equipment requirement and billeting and messing requirements.
- 8-1-4 Implement the revised training program.
- 8-1-5 Monitor and supervise the training program to insure achievement of desired results.

- 8-1-1 Determine capabilities and deficiencies of present training program.
- 8-1-2 Establish Corrective guidelines.
- 8-1-3 Established revised training schedule.
- 8-1-4 Implement revised training schedule
- 8-1-5 Monitor training program.

[illegible]

*Continuous

Project No. B-2

Project Title: Water Lift Improvement

Date Established: 1st Qtr FY70 Completion Date: 4th Qtr FY70

Responsible Agency:

Host Country: Director of Defense Transportation

U.S.: HQ MACV, J46 (Transportation Advisory Division)

PROJECT OBJECTIVE: To better utilize the coastal waterways, rivers and canals of RVN as lines of communication.

BACKGROUND/CURRENT SITUATION: The coastal waterway, rivers and canals of RVN have historically been the chief lines of communication within the Republic of Vietnam. U.S. Forces have deployed a large and diverse fleet to take advantage of these waterways. The approved RVNAF force includes five medium boat companies, one heavy boat company, and ten tug boat teams. Each medium boat company is authorized 19 LCMB's.

Currently three of the five medium boat companies are partially or fully operational. One company has 19 LCMB's, another company has 14 LCMB's and a third company has four LCMB's. The company that has 4 LCMB's is in the process of receiving an additional 10 LCMB's. One company will receive its LCMB's in August 1969 and should be operational by the end of August 1969. The fifth medium boat company was activated 1 July 1969. Its is scheduled to complete its organization and training by Mid December 1969. Currently there is no scheduled date for this company to receive its mission equipment. The one heavy boat company was activated on 1 April 1969 and will complete its organization and training by late October 1969, however, there is no scheduled date when this company will receive its mission equipment. Ten tug boat teams are scheduled for activation during July 1969 and will complete organization and training by 31 October 1969, however, no scheduled date has been established for the tug boats to be transferred to ARVN.

COURSES OF ACTION:

B-2-1 Establish a date for mission equipment to be transferred to one ARVN medium boat company, one heavy boat company and the ten tug boat teams.

B-2-2 Monitor the system as it develops and make necessary changes.

- 8-2-1 Establish date for transfer of mission equipment.
- 8-2-2 Monitor the system.

FY 1969			FY 1970			FY 1971			FY 1972		
			X	X							
				X	X X						

3-134

Source: Report, Logistics - Country Logistics Improvement Plan (CLIP) - Record of ACV Part 1, 31 July 1969, Folder 0707, Box 0025, TTUVVA, accessed 17 May 2016, <http://www.vietnam.ttu.edu/virtualarchive/items.php?item=F015800250707>, Cover, 3-131 - 3-134

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