

ON CONTESTED SHORES

The Evolving Role of Amphibious Operations
in the History of Warfare



Edited by Timothy Heck
and B.A. Friedman

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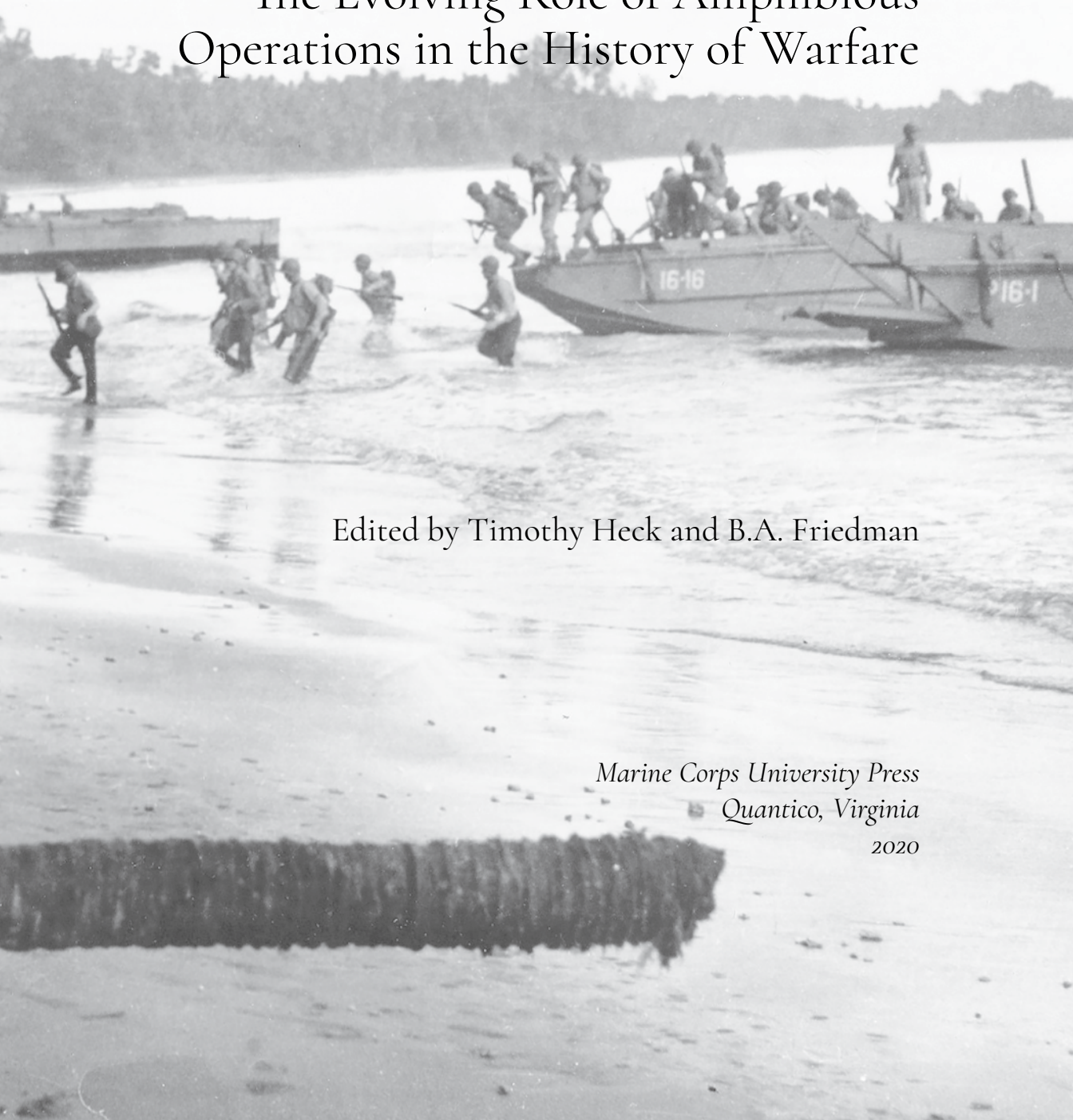
Marines land on the beach at Guadalcanal, August 1942.
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Operations in the History of Warfare

Edited by Timothy Heck and B.A. Friedman

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FOREWORD

The United States is a maritime nation, and as such it relies on the seas for its economic well-being and national security. In fact, the majority of the countries in the world today rely on the world's oceans in similar ways. More than 90 percent of world commerce (by volume) travels by ship, while unlimited natural resources remain untapped in and below the seas.¹ Most of the world's population lives within the littorals that bridge the oceans to intercoastal waterways and expand hundreds of kilometers inland from national shorelines. The Arctic and other areas we were once unable to traverse by water are now open due to melting icecaps, creating new sea lines of communications (SLOC) that will have economic and security implications.

SLOCs have been used throughout history as invasion routes and a means to reinforce allies and partners in time of war. This fact and the protection of one's economic well-being has required nations to invest in strong and capable maritime forces. Yet history demonstrates that ships alone have been insufficient to achieve desired ends. Just as airpower alone is insufficient to win land campaigns, seapower requires a component of landing forces to succeed in naval campaigns. These amphibious forces have often been the decisive factor in accomplishing operational objectives that establish the conditions to achieve strategic victories.

¹ "Shipping and World Trade," International Chamber of Shipping, accessed 5 May 2020.

Just as the nature of war is enduring, amphibious forces possess enduring traits that continue to provide them operational advantage over their adversaries. With more than 70 percent of the Earth covered in water, amphibious forces use waterways as maneuver space, giving them a level of flexibility, speed, and survivability often unmatched by land forces. The increased readiness of amphibious forces and their ability to task organize and scale to meet mission requirements allow them to respond rapidly, adapt to evolving situations, deploy, and retrieve forces for rapid employment elsewhere. Purpose-made amphibious warships provide at-sea bases from which to operate and sustain the force without sovereignty concerns, while challenging adversaries' ability to target these bases, unlike fixed sites ashore.

Some will argue that improved sensors, long-range precision weapons with increased lethality, and emerging technologies have made future amphibious operations untenable. They claim that adversary antiaccess/area-denial (A₂/AD) strategies deny those advantages offered by amphibious forces. Similar arguments have been made throughout history, only to be proven wrong. One need look no further than America's competitors to see that they believe in the continued relevance of amphibious operations. Both China and Russia continue to increase investment in amphibious capabilities, and in 2015, commenced joint amphibious training exercises together in the joint sea series of naval exercises.²

Since 2017, China has increased its Marine Corps from two to seven brigades, with plans for continued growth.³ Concurrently, it has invested in the new Type 075 landing helicopter, dock (LHD), and Type 071 landing platform, dock (LPD), warships to rival the Navy's USS *Wasp* (LHD 1) and USS *San Antonio* (LPD 17) classes of ships. The Type 071 and 075 were designed to conduct full-spectrum operations such as similar U.S. capabilities and to deploy ZTD-05 amphibious tank assault vehicles, ZBD-05 amphibious infantry fighting vehicles, VP10 amphibious armored personnel carriers, *Zubr*-class hovercraft (a.k.a. air-cushioned landing craft or LCAC), helicopters, and other connectors to support decisive operations ashore.

Russia is also expanding its amphibious capabilities. As of the writing of this foreword, the technical specifications of two new amphibious assault ships to be laid down at the Zaliv Shipyard in Crimea are being completed, with construction to begin in May 2020.⁴ These helicopter carriers will also possess well decks to employ surface connectors and carry approximately 500 troops. This new class of amphib will join the Russians' *Ivan Gren*-class amphibious landing ships that entered service in 2018.⁵

² Capt Michael A. Hanson, USMC, "China's Marine Corps Is on the Rise," U.S. Naval Institute *Proceedings* 146, no. 4 (April 2020).

³ Michael Peck, "China Is Tripling the Size of Its Marine Corps," *National Interest*, 2 November 2019.

⁴ Dorian Archus, "Russia's New Amphibious Assault Ships to Be Laid Down at 2020 Spring," *Naval News*, 11 September 2019.

⁵ Brad Howard, "Russia Wants the Same Amphibious Capability as the US Marine Corps," *Task & Purpose*, 14 August 2018.

As would-be adversaries increase their amphibious capabilities, the United States and other nations are reassessing their own amphibious needs to meet the challenges of the twenty-first century. Former Commandant General Robert B. Neller asserted in 2019 that “the Marine Corps is not organized, trained, equipped, or postured to meet the demands of the rapidly evolving future operating environment.”⁶ He initiated, and his successor, General David H. Berger, further charted a new course for the Marine Corps; one that acknowledges “the impacts of proliferated precision long-range fires, mines, and other smart weapons,” and seeks “innovative ways to overcome these threat capabilities.”⁷ The Commandant intends to more fully integrate with the Navy and work with it to develop new amphibious capabilities. General Berger identified a requirement for “smaller, lower signature, and more affordable amphibious ships” and “affordable, distributable platforms that will enable littoral maneuver and provide logistical support” to support newly developed operational concepts to include the Navy’s distributed maritime operations (DMO) and the Marine Corps and Navy concepts of littoral operations in a contested environment (LOCE) and expeditionary advanced base operations (EABO).⁸

Time, experimentation, war games, and world events will reveal the right force design and capabilities needed for the Marine Corps to succeed on future battlefields. Open and candid debate based on historic examples, an understanding of the current and expected future operating environment, and a vision for one’s force are also essential to assist our senior leaders in getting our force design and operating concepts as close to right as possible. All Marines and sailors have a responsibility to think through the challenges and opportunities offered to amphibious forces into the twenty-first century and add to these discussions.

Timothy Heck, B.A. Friedman, and Marine Corps University Press have compiled a comprehensive and well-balanced work to advance this effort. They endeavored to “elucidate the foundations of amphibious warfare while also illuminating its future potential.” They have achieved this by sharing lessons from the past, a view of the present, and projections for tomorrow. The editors and authors do this in a way that extends the reader’s knowledge beyond the well-known battles of World War II, while acknowledging that although U.S. Marines have a reputation as the world’s premier amphibious warfare experts, there is still much to be learned from our allies, partners, and adversaries.

The stories within will take you on a journey through time that will expand your understanding of the important contribution amphibious operations have played, and will play, in world events. They will place you beside military commanders as they learn and apply hard-learned lessons, and leave you thirsting for more as you reflect on how the changing character of warfare requires new methods to survive and succeed in fu-

⁶ Gen David H. Berger, *Force Design 2030* (Washington, DC: Headquarters Marine Corps, 2020), 2.

⁷ Berger, *Force Design 2030*, 3.

⁸ Berger, *Force Design 2030*, 2.

ture battles. On completing this journey, you will be better prepared to contribute to the important discussions all nations are having today to define the future of amphibious warfare that will fill forthcoming chapters of works such as this. Enjoy the journey.

Jason Q. Bohm
Brigadier General, U.S. Marine Corps

PREFACE

This project is, at its core, meant to fill a gap in scholarship. Writers who take on amphibious operations, whether in English-language academia or in military professional journals, tend to focus on one nation, one subject, and one time period: the American-led amphibious assaults of World War II. These campaigns have been so well-covered, and works on them are so accessible, that they tend to crowd out other examples and other forms of amphibious operations. Even the number of works on Gallipoli—a landmark event in the history of amphibious operations—pale in comparison to works on Normandy.

We recognized a need to broaden the scope beyond this focus. Amphibious operations are as old as history, featuring in no less a timeless work than that of Herodotus, and continue today. There is no sign that they will cease to be an important aspect of any maritime nation's national defense—although those authors who looked to the future are unanimous in their conclusions that their character will change.

The last similar work to broaden the scope came from Lieutenant Colonel Merrill L. Bartlett's *Assault from the Sea: Essays on the History of Amphibious Operations* in 1993. It remains an essential volume and excellent reading; but after nearly 30 years, we believe another such attempt is warranted. Indeed, Bartlett's work stood as our inspiration in creating this volume.

We specifically set out to avoid a focus on the amphibious assaults of World War II, although ignoring them entirely is impossible. The inclusion of World War II operations here is due to the chapters' focus on narrow aspects, to often-overlooked

events, or to historic events considered through modern doctrine. Certainly, as has been done, another volume on the smaller operations of World War II could be written and even large operations are seeing increasingly specific studies.

When conceptualizing this book, we wanted to provide space for both historical perspectives and future conceptualization. Both viewpoints are valuable, and both approach the topic from varied perspectives. Academics tend to look to history, while practitioners tend to look to the future where they may need to put ideas into practice. Both can benefit from the viewpoint of the other.

To accomplish these goals, we sought out diversity in both authors and subject matter. Although we feel we were very successful in the latter task, we were not as successful as we would have liked in the former. The community of interest around amphibious operations grows in diversity but remains quite homogeneous in English-speaking militaries. Many of those who submitted chapters for this book are, in some way, tied to the U.S. Marine Corps or the American naval Services. Despite this near-tribal affiliation, we were so successful in broadening the subject matter that submissions were made concerning amphibious operations neither contributing editor had ever heard of in the course of our studies.

The call for submissions reached far and wide, and we owe a debt of gratitude to many interested people even if they did not submit a chapter. Supporters passed the call for chapters on to peers and friends, others served as or identified peer reviewers, and many more helped authors find or translate materials. Through the generosity of others, we received enough scholarly and practical submissions to find a publisher interested in taking on an edited volume. While our names are on the cover, it is certainly the work of hundreds that made this project a reality.

The topics selected were based almost entirely on whether the chapter covered amphibious operations in a unique way, particularly if presented by examining a little-known example. In addition to review by the editors, each chapter went through a double-blind peer review process. Finally, each chapter went through the in-house review and editing process by Marine Corps University Press (MCUP). We cannot think of a better publisher for a volume on amphibious operations than MCUP, and we thank them for all the hard work to bring this project to fruition.

ACKNOWLEDGMENTS

The authors would like to thank our families for their support of this project. We could not have done this without Angela Anderson and her team at Marine Corps University Press, whose time, dedication, and effort turned a simple text message into this volume. Throughout this year-plus process, our authors have gotten married, had kids, switched jobs, moved, and retired, but were always available to review a concept, revise a draft, or answer questions. Furthermore, we could not have handled much of our information technology architecture without Brian Candler at the International School of Kuala Lumpur, Malaysia. Bruce Gudmundsson and BJ Armstrong, whose chapters appear within, also assisted in improving the academic rigor of the book by suggesting and advising us on the peer review process. Thanks also to Margaret Harrison at Joint Forces Staff College in Norfolk, Virginia; Dr. Frank A. Blazich; and Randy Papadopoulos for their input, assistance, and networking skills.

GLOSSARY OF TERMS AND ACRONYMS

Az/AD	antiaccess/area-denial
AORG	Army Operational Research Group
ASSU	Air Support Signals Unit
AU	Assault Unit
Bde	brigade
Bn	battalion
Bty	battery
CBTC	Commando Basic Training Centre
CDA	Center for Defense Analyses (US)
Cdo	Commando
CEMO	Complete Equipment Marching Order
CO	commanding officer (battalion appointment)
Coy	company
CSM	company sergeant major (company appointment)
Div	division
DMO	distributed maritime operations
DSC	Distinguished Service Cross
EABO	expeditionary advanced base operations
Fd Regt	field regiment (artillery battalion)
FOB	forward officer bombardment (naval gunfire support)
FOO	forward observation officer (field artillery)

FSMO	Field Service Marching Order
GrW	<i>Granatewerfer</i> (mortar)
HMS	His/Her Majesty's Ship
HW	heavy weapons
IO	intelligence officer (battalion appointment)
IWM	Imperial War Museum
JP	Joint Publication
LCA	landing craft assault
LCG(L)	landing craft gun (light)
LCT(R)	landing craft, tank (rocket)
LCVP	landing craft, vehicle and personnel
LMG	light machine gun
LO	liaison officer
LOCE	littoral operations in a contested environment
LSCO	large-scale combat operations
MDO	multidomain operations
MG	machine gun
MMG	medium machine gun
MO	medical officer (battalion appointment)
MT	motor transport
NOIC	naval officer in charge
PLUTO	pipeline underwater transportation of oil
OC	officer commanding (company or platoon appointment)
OP	observation post
OR	other rank (enlisted); operational research
ORO	Operational Research Office (U.S.)
ORP	<i>Okręt Rzeczypospolitej Polskiej</i> (Warship of the Republic of Poland)
PIAT	projector, infantry, antitank
Portais	an inhabitant of Port-en-Bessin, France
RA	Royal Artillery
RAF	Royal Air Force
RAP	regimental aid post (battalion aid station)
RASC	Royal Army Service Corps
RCT	Regimental Combat Team (USA)
Regt	regiment
RM	Royal Marines
RN	Royal Navy
RQMS	regimental quarter master sergeant (battalion appointment)
RSM	regimental sergeant major (battalion appointment)
RV	rendezvous
SLOC	sea lines of communications
SS	Special Service; sailing ship

sMG	<i>schwere Maschinengewehr</i> (heavy MG, equivalent to British MMG)
SO	signals officer (battalion appointment)
USAAF	United States Army Air Force
W/E	War Establishment
Wn	<i>Widerstandsnest</i> (Resistance Nest)
WO	War Office
WO ₁	warrant officer first class

ON CONTESTED SHORES

INTRODUCTION

Timothy Heck and B.A. Friedman

Amphibious operations have always assumed the need to overcome an opposing force and to establish a degree of battlespace dominance before attempting operations.¹

The projection of power from the sea, be it for conquest or humanitarian assistance, remains a core task for militaries worldwide. While many historians and military strategists think of amphibious operations in the traditional terms of Gallipoli, Tarawa, or Normandy, the reality of this concept is older, more nuanced, and far broader than what has taken place in the last century. Steadily growing populations in the coastal regions, the effects of climate change on navigable waterways, usable ports, and viable beaches, and political disputes in places such as the South China Sea all further increase the likelihood of amphibious operations being conducted in the coming years. These trends have been noted by U.S. military studies and civilian experts like David Kilcullen.²

A subject so complex and vast as amphibious operations presents a variety of

¹ Bradley Martin, *Amphibious Operations in Contested Environments: Insights from Analytic Work* (Santa Monica, CA: Rand, 2017), <https://doi.org/10.7249/CT476>. This report was based on Martin's testimony before the House Armed Services Committee, Subcommittee on Seapower and Projection Forces on 18 May 2017.

² David Kilcullen, *Out of the Mountains: The Coming Age of the Urban Guerrilla* (London: Oxford University Press, 2015).

examples, angles, and lessons to be learned. As the following chapters reveal, “amphibious operations are extraordinarily difficult to mount.”³ This was true when the Persians landed at Marathon, Greece, in 490 BCE, and it is true today. Their importance and utility in strategy, however, means that their potential outweighs the risk. Amphibious operations feature in some of history’s most defining turning points, places such as Marathon on Greece, Carthage in Tunisia, Hastings in England, Yorktown in Virginia, the Gallipoli Peninsula off Turkey, and Normandy, France. No serious navy in history—from the Sea Peoples to China’s People’s Liberation Army Navy—has lacked an amphibious component.⁴ Few countries have neglected their defense against amphibious operations. China, Russia, Iran, and North Korea have built or are building elaborate antiaccess/area-denial (A₂/AD) systems specifically designed to keep the capital ships that underpin American force projection away from their shores. Far from being obsolete, amphibious operations remain foremost in the minds of strategists worldwide.

Amphibious operations as a topic of study have seen a resurgence in academic popularity in recent years. The events of 11 September 2001 (9/11) shifted the focus of many military forces, the U.S. Marine Corps among them, from traditional force projection models to counterinsurgency. The slow extrication from the long war by the United States has opened the door for a return to analyzing traditional military operations, amphibious landings among them. While the U.S. Army has turned its focus to large-scale land campaigns and multidomain operations (MDO), the Marine Corps is returning to its amphibious roots.⁵ Recent commentary and planning guidance from the Commandant of the Marine Corps, General David H. Berger, tasked the Marines with a return to the sea, increasing naval integration, and expanding its ability to fight not just from the sea but for sea control from the shore.⁶ Nonstate actors are not ignoring the importance of amphibious power projection. Lashkar-e-Taiba (Army of the Pure) in India, Al-Shabaab (The Youth) in Somalia, and the Houthis in Yemen—all religious militant terrorist groups—have all exploited the sea as a medium for power projection in recent years. Lashkar-e-Taiba used boats to infiltrate Mumbai, India, in 2008, conducting terror attacks across the city.⁷ Fighting between Al-Shabaab and other forces in Somalia often features movement by sea,

³ David Leece, “Amphibious Operations: An Introduction,” *United Service* 65, no. 3 (September 2014): 12.

⁴ The term *Sea Peoples* refers to any of the groups of aggressive seafarers who invaded eastern Anatolia, Syria, Palestine, Cyprus, and Egypt toward the end of the Bronze Age, especially in the thirteenth century BCE.

⁵ *The U.S. Army in Multi-Domain Operations, 2028*, TRADOC Pamphlet 525-3-1 (Washington, DC: Department of the Army, 2018).

⁶ Gen David H. Berger, *Commandant’s Planning Guidance: 38th Commandant of the Marine Corps* (Washington, DC: Headquarters Marine Corps, 2019); and Gen David H. Berger, “Notes on Designing the Marine Corps of the Future,” *War on the Rocks*, 5 December 2019.

⁷ CNN Editorial Research, “Mumbai Terror Attacks Fast Facts,” CNN, 11 November 2019.

such as the amphibious assault against Al-Shabaab-held Kismayo in 2012.⁸ The Houthi insurgents in Yemen attempted to strike U.S. Navy vessels with missiles launched from the shore.⁹

The basis for this book has been under construction since before the Commandant released the planning guidance. As career Marine officers, who spent very little time at sea, the editors have long been concerned that the Marine Corps was becoming too land-centric, heavily reflecting the characteristics of a second land army. This has been true since 1991, when the Marine Corps participated in a land campaign in Iraq, and especially since 2001, when it participated in three land campaigns: Afghanistan, Iraq, and Syria. To fight these battles, the Marine Corps became heavier, upgraded equipment, and generally focused on counterinsurgency tactics vice amphibious warfare. While the Marine Corps always steps up to fight alongside the U.S. Army, its purpose is naval campaigns fought alongside the U.S. Navy. This book is in part a way to help figure out how to regain and maintain the skills necessary for maritime operations. General Berger seems to share those anxieties. To further explore this concern, the editors studied amphibious operations over time and across cultures and recognized the gap in our collective knowledge.

There are five types of amphibious operations in current American doctrine: the assault, the withdrawal, the raid, the demonstration, and amphibious support to other operations. Most people who are not familiar with the subject only think of amphibious assaults. Even some active-duty Marines view the purpose of the Corps as performing amphibious assaults, rather than the more general category of amphibious operations. Works of popular history also tend to focus on the drama and significance of famous amphibious assault operations. We specifically set out to expand this scope, and the authors of the following chapters have covered each type to elucidate the foundations of amphibious warfare while also illuminating its potential future. We sought out authors and essay topics that explore the lessons of the past, the capabilities and visions of the present, and the projections for tomorrow. Expanding the scope of the subject to cover all of its permutations can better help historians, strategists, and practitioners identify both trends and lessons learned.

The basic concept for this book was born from an exchange of text messages in 2018 following a discussion inspired by Lieutenant Colonel Merrill L. Bartlett's *Assault from the Sea: Essays on the History of Amphibious Warfare*.¹⁰ We agreed that, while a fine volume, it had been far too long since someone had taken on the subject and format for an update. Nearly three decades have elapsed since the publication of that collection, and the editors recognized an opportunity to update the conversation

⁸ Clar Ni Chonghaile, "Kenyan Troops Launch Beach Assault on Somali City of Kismayo," *Guardian*, 28 September 2012.

⁹ Sam LaGrone, "USS Mason Fired 3 Missiles to Defend from Yemen Cruise Missiles Attack," *USNI News*, 11 October 2016.

¹⁰ LtCol Merrill L. Bartlett, USMC (Ret), *Assault from the Sea: Essays on the History of Amphibious Warfare* (Annapolis, MD: Naval Institute Press, 1993).

based on the many changes seen in the Corps since the early 1990s, but also the changes wrought by world events, new scholarship, archives, and the internet, which have expanded our understanding of what an amphibious operation means. It is doubtful the subjects of, or even the authors of the essays in, *Assault from the Sea* would have foreseen something like Operation Enduring Freedom's employment of Task Force 58 for a 644-kilometer (km) assault inland to a landlocked Afghanistan a mere eight years after that volume's publication. They would, however, undoubtedly recognize the complexity, initiative, and daring required to conduct that operation.¹¹

The authors here are certainly not the only ones interested in amphibious operations. In 2014, the Royal United Services Institute for Defence and Security Studies–Australia (RUSI) in New South Wales hosted a seminar on amphibious operations from an Australian perspective. The presentations, included in the September 2014 issue of *United Service*, revealed the ongoing interest in using past examples to guide future decisions and discussions. Gary Ohls's recent *American Amphibious Warfare: The Roots of Tradition to 1865* and Jeremy Black's *Combined Operations* show that ample topics remain to be explored.¹² Even more nuanced studies continue to appear, as evidenced by Thomas Mitchell's recent *Winds, Waves, and Warriors: Battling the Surf at Normandy, Inchon, and Tarawa*, which focused on the meteorology and oceanography that went into these iconic amphibious operations.¹³

More recent practical experiments, such as the British Royal Navy's *Black Swan*-class of war sloop and the expanded amphibious exercises within the U.S. Marine Corps, show a deeper desire to evolve the amphibious concept in an era of A2/AD.¹⁴ The technology to launch amphibious operations can be political in nature, as the French refusal to sell *Mistral*-class amphibious assault vessels to Russia after the 2014 invasion of Crimea reveals.¹⁵

Despite the advancements, amphibious operations remain a perennial favorite to dismiss as obsolete. In 1949, General Omar N. Bradley, then chairman of the Joint Chiefs of Staff, told the House Armed Services Committee that there would never be another large-scale amphibious operation.¹⁶ Within a year, American forces landed at Inchon, South Korea.¹⁷ In 1976, Martin Binkin and Jeffrey Record published *Where*

¹¹ Col Nathan S. Lowrey, *U.S. Marines in Afghanistan, 2001–2002: From the Sea—U.S. Marines in the Global War on Terrorism* (Washington, DC: History Division, Headquarters Marine Corps, 2011).

¹² Gary J. Ohls, *American Amphibious Warfare: The Roots of Tradition to 1865* (Annapolis, MD: Naval Institute Press, 2017); and Jeremy Black, *Combined Operations: A Global History of Amphibious and Airborne Warfare* (Lanham, MD: Rowman and Littlefield, 2017).

¹³ Thomas M. Mitchell, *Winds, Waves, and Warriors: Battling the Surf at Normandy, Inchon, and Tarawa* (Baton Rouge: Louisiana State University Press, 2019).

¹⁴ For more on *Black Swan*, see *Future "Black Swan" Class Sloop-of-War: A Group System*, Joint Concept Note 1/12 (London: Ministry of Defence, 2012).

¹⁵ "Russia's French-built Warships: Scrapping the Mistral Deal," *Economist*, 15 May 2015.

¹⁶ Omar Bradley and Clay Blair, *A General's Life* (New York: Simon and Schuster, 1983), 510.

¹⁷ For more on the Marine Corps activities in the conflict, see the official history in *U.S. Marine Operations in Korea, 1950–1953*, 5 vols. (Washington, DC: History Division, Headquarters Marine Corps, 1954–72).

Does the Marine Corps Go From Here?, calling into question the viability of amphibious operations in the post-Vietnam Cold War era.¹⁸ A few years later, Marine Lieutenant Colonel Kenneth R. Burns called them “a dinosaur which had outlived its usefulness.”¹⁹ In January 2019, RUSI remarked that the amphibious operation was over and the Marine Corps should instead focus on “raiding to secure forward support positions as part of a joint fight.”²⁰ The authors of this volume firmly disagree with such pessimism about amphibious operations.

While the battles at Gallipoli, Tarawa, or Normandy might be hard to conceptualize today, the need to project force ashore or, conversely, evacuate to the sea remain strategic and operational requirements. In compiling this book, the editors sought to expand the scope of amphibious operations scholarship beyond the famous, war-winning amphibious assaults of World War II and beyond the U.S. Marine Corps. While the chapters here highlight some of the lesser-known operations and Services, a book that ignored these events would be incomplete. The Allied amphibious assaults of World War II were some of the largest and most challenging military operations in history, and not just for their amphibious operations. The 1945 iteration of the U.S. Marine Corps has been the largest and most influential amphibious force in the world. Thus, these subjects have received their due chapters while still preserving space for other perspectives, experiences, and histories.

¹⁸ Martin Binkin and Jeffrey Record, *Where Does the Marine Corps Go from Here?* (Washington, DC: Brookings Institution, 1976).

¹⁹ LtCol Kenneth R. Burns, USMC, “Mobilization Studies Program Report—Marine Corps Warfighting Capability: A Comparison Between the Periods 1977–1980 and 1981–1984” (unpublished paper, College of the Armed Forces, March 1985), 17.

²⁰ Sidharth Kaushal and Jack Watling, “Amphibious Assault Is Over,” *RUSI Defence Systems*, 21 January 2019.

CHAPTER ONE

An Amphibious Special Operation

The Night Attack on Porto Ercoletto, Tuscany, 2 June 1555*

Jacopo Pessina

On 2 June 1555, Chiappino Vitelli, who was the captain general of the ducal cavalry in the Imperial Florentine forces, led a storming party of 300 fighters in a night assault against the French-Sienese garrison stationed in the fort on the island of Porto Ercoletto, Tuscany.¹ In the hour-long battle, Vitelli's forces overwhelmed the defenders and took the island of Porto Ercoletto. This was a turning point in the siege of Porto Ercole. After taking the fort of Porto Ercoletto in front of Porto Ercole, the French-Sienese could no longer prevent Andrea Doria, the imperial admiral, from offloading the artillery from his galleys on Lo Sbarcatello (a beachhead near the Imperial Florentine second camp placed in Cala delle Vigne). Using the off-loaded cannons, Marquis of Marignano Giangiaco­mo Medici bombarded all the forts that still remained in enemy hands and took them easily.² Finally, on 18 June, after a

* All the archival Italian documents quoted are translated into English from the original Italian version.

¹ Gian Luigi “Chiappino” (the bear) Vitelli (1519–75) was a sixteenth-century soldier. He served in the Medicean Army for more than 20 years, having a key role in the War of Siena. In 1567, the King of Spain, Philip II, appointed Vitelli general of the Army of Flanders. For more on Chiappino Vitelli, see Maurizio Arfaio­li, “Alla destra del Duca: la figura di Chiappino Vitelli nel contesto degli affreschi vasariani del Salone dei Cinquecento,” *Mitteilungen des Kunsthistorischen Institutes in Florenz* 51, nos. 1–2 (2007): 271–78.

² Giangiaco­mo “Medighino” (probably for his shortness) Medici (1497/98–1555) was one of the most important Italian soldiers during the first half of the sixteenth century. Medici fought in the main European theaters of war (Germany, Hungary, and Italy). For more on Giangiaco­mo Medici, see *Dizionario Biografico degli Italiani*, vol. 73 (Rome, Italy: Istituto dell’Enciclopedia Italiana, 2009), s.v. “Giovanni Giaco­mo Medici.”

24-day siege, the French-Sienese garrison of Porto Ercole surrendered: the supply lines of the Sienese republic-in-exile in Montalcino were cut off, and it could not receive reinforcements by sea, dwindling its chances of winning the war.

This chapter aims to analyze Chiappino Vitelli's assault on the small island of Porto Ercoletto to understand how an amphibious special operation was executed during the Italian Wars (1494–1559).³ Even though the assault on Porto Ercoletto was an important military operation in the context of the War of Siena (1552–55), it has remained one of the less-explored events of mid sixteenth-century warfare. Nevertheless, the importance of this military operation, which led to Porto Ercole's conquest, in local historical art is confirmed by Giorgio Vasari's famous 1570 fresco in Palazzo Vecchio (Sala dei Cinquecento), Florence, representing the *Presca di Porto Ercole* or *Capture of Porto Ercole* (figure 1).

LITERATURE REVIEW

Previous scholars have considered the siege of Porto Ercole as the final episode in the War of Siena, and have focused on its description to analyze its fortifications, which were “conceived as a system of mutually supporting works” built around the village.⁴ This particular focus was driven by the debate on the utility of fortifications in the early modern era. Despite the excellent descriptions of the conquest of Porto Ercole, the importance of Vitelli's night raid on Porto Ercoletto has been underestimated. Even if previous scholars have not explored in depth this operation, it was very important during the siege of Porto Ercole: it was only due to this nighttime amphibious assault allowing the marquis of Marignano to offload artillery on Lo Sbarcatello that Vitelli's special operation assumed significance.

Historian Yuval N. Harari analyzed special operations conducted in the period between the Middle Ages and the first half of the sixteenth century and defined such an operation as “a combat operation that is limited to a small area, takes a relatively short span of time, and is conducted by a small force, yet is capable of achieving significant strategic or political results disproportional to the resources invested in

³ The Italian Wars were a series of conflicts fought between 1494 and 1559 in the Italian peninsula, which was the main theater of the Habsburg and Valois dynasties' struggle for supremacy in Europe. For more on the Italian Wars, see Christine Shaw and Michael Edward Mallett, *The Italian Wars, 1494–1559: War, State and Society in Early Modern Europe* (London and New York: Routledge, 2012).

⁴ Simon Pepper and Nicholas Adams, *Firearms and Fortifications: Military Architecture and Siege Warfare in Sixteenth-Century Siena* (Chicago and London: University of Chicago Press, 1986), 152. On this topic, see Roberto Cantagalli, *La Guerra di Siena (1552–1559)* (Siena, Italy: Accademia Senese degli Intronati, 1962), 432–36; Gualtiero Della Monaca, *La presa di Porto Ercole: Orbetello e il Monte Argentario nel XV e XVI secolo fino alla fine della Guerra di Siena in Maremma* (Arcidosso, Italy: Effigi edizioni, 2010), 190–226, 240–73; Nicoletta Maioli, ed., *Forte Stella: Storia e restauro* (Siena, Italy: Grafiche Pistoiesi, 2002), 35–41; Ettore Pellegrini, *Le fortezze della repubblica di Siena: vicende edilizie, significato strategico, condizioni operative dell'architettura fortificata rinascimentale nel conflitto tra Francia e Impero per il controllo del territorio senese* (Siena, Italy: il Leccio, 1992), 216–18, 356–62; and Pepper and Adams, *Firearms and Fortifications*, 140–55.



FIGURE 1
Presca di Porto Ercole (Capture of Porto Ercole) by Giorgio Vasari,
1568–70, fresco, Palazzo Vecchio Museum.
Google Art Project

it.”⁵ Harari focused only on inland special operations because naval ones “were very different on both the strategic and operational levels.”⁶ However, amphibious warfare

⁵ Yuval Noah Harari, *Special Operations in the Age of Chivalry, 1100–1550* (Woodbridge, UK: Boydell Press, 2007), 1.

⁶ Harari, *Special Operations in the Age of Chivalry, 1100–1550*, 2.

resembled inland operations more than maritime ones and, according to historians David J. B. Trim and Mark C. Fissel, the majority of amphibious attacks in the early modern era “were undertaken for specific operations, such as plundering and the capture or relief of specific ports, for economic, logistical or prestige reasons.”⁷ In this sense, the targets of amphibious operations were not much different from those of special ones, during which ad hoc storming parties were created to attack troops or infrastructure, such as bridges, forts, ports, or workhouses. In the unexplored field of the sixteenth-century amphibious special operations in Italy, Chiappino Vitelli’s attack on Porto Ercoleto represents a relevant case study.

HISTORICAL OVERVIEW: THE WAR OF SIENA (1552–55)

The War of Siena occurred in the concluding period (1547–59) of the Italian Wars, during which Henry II Valois (1519–59), the King of France, challenged the hegemony of Charles V Habsburg (1500–58), the Holy Roman Emperor and King of Spain, in the peninsula.⁸ At the beginning of the 1550s, a section of the Sienese oligarchy was hostile to the emperor because of Ferrante Gonzaga’s attempt to subjugate the republic.⁹ Given this political situation, Henry II sensed an opportunity to obtain a military base in central Italy, from where attacks could be launched against Charles V’s dominions. Because of this, Henry II supported the passage of Siena from the im-

⁷ David J. B. Trim and Mark Charles Fissel, “Conclusion,” in *Amphibious Warfare, 1000–1700: Commerce, State Formation and European Expansion*, eds. David J. B. Trim and Mark Charles Fissel (Leiden, Netherlands: Brill, 2011), 441. For the purposes of this discussion, the author uses the definition of *amphibious warfare* elaborated by David Trim and Mark Fissel, who consider it “[a] form of warfare in which land-based and waterborne forces cooperate, on at least one side, whether against a similar conjunction of forces, or against a solely land or water-based enemy.” David J. B. Trim and Mark Charles Fissel, “Introduction,” in *Amphibious Warfare*, 27.

⁸ Shaw and Mallett, *The Italian Wars*, 250–85. For more on the War of Siena, see Cantagalli, *La Guerra di Siena*; Arnaldo D’Addario, *Il problema senese nella storia italiana della prima metà del Cinquecento (la guerra di Siena)* (Florence, Italy: Felice Le Monnier, 1958); and Pepper and Adams, *Firearms and Fortifications*.

⁹ After the Sienese uprising of 1546, Ferrante Gonzaga, the governor of Milan, planned to annex the Republic of Siena to the Spanish dominions; this would have provided Philip II, the future King of Spain, with a state in central Italy from where he could exert military pressure on Florence and Rome. Gonzaga drafted a four-step plan: first, the reintroduction of *fuoriusciti* Noveschi (the exiled from the political faction opposing to the contemporary Sienese government) into Siena to gain support for his proposals; second, the reform of the republic’s institutions; third, the disarming of Siena’s inhabitants; and fourth, the construction of a citadel inside the city, manned by a garrison of Spanish soldiers, to control the inhabitants and direct the government’s policy. Then, after the death of Charles V, the republic, under complete control, would have been absorbed into the Spanish crown. However, after having built the citadel, Gonzaga’s plan failed because of the rising hatred for the emperor among the Sienese oligarchy, which did not stomach the prospect of subjugation. Arturo Pacini, *Desde Rosas a Gaeta: La costruzione della rotta spagnola nel Mediterraneo occidentale nel XVI secolo* (Milan, Italy: FrancoAngeli, 2013), 92–119.

perial sphere of influence to the French one.¹⁰ On 27 July 1552, the Sieneese, along with mercenary units hired by the King of France, rose against their city's Spanish garrison, which surrendered eight days later on 3 August.¹¹

Don Pedro Alvarez de Toledo, the viceroy of Naples, offered the Holy Roman Emperor his help suppressing the Sieneese uprising. Charles V accepted but refused to spend money on hiring a new army because of his ongoing war in Germany. In February 1553, Toledo's troops reached the Sieneese dominion and conquered the Valdichiana, Tuscany, in a month. At the end of March, Don García Alvarez de Toledo, captain-general after his father Pedro's death, was below the walls of Montalcino with 14,000 fighters.¹² The siege was a disaster for Don García who, considering the imminent arrival of the Ottoman fleet in Maremma, decided to withdraw his force from Montalcino after failing to take it on 15 June.¹³

In autumn 1553, Cosimo de' Medici, the duke of Florence, who had been neutral, grew worried by the strong French presence in Tuscany. He feared that his state could become the next target of Henry II's military ambitions. The duke of Florence offered his aid to Charles V and volunteered to conduct the campaign against Siena. The emperor would bear a part of the war expenses. Cosimo de' Medici hired mercenary units and nominated Giangiaco­mo Medici as captain-general of the Imperial Florentine forces. Then, in November, Henry II gave to Cosimo de' Medici the *casus belli* (an act that justifies war) by appointing Piero Strozzi as the lieutenant general of the French Army in Tuscany, a clear violation of the 1547 Florentine-Sieneese agreement, which prohibited both Siena and Florence from providing refuge to any person banned by the other state.¹⁴

Giangiaco­mo Medici intended to conquer Siena, and he was convinced that the war would be over if the city was taken. At the end of January, the city was under siege, and in June, its supply lines were completely cut off. Piero Strozzi's countermove was to launch attacks on the Florentine state and to induce the marquis of

¹⁰ For more on Sieneese political currents and the support of Habsburg or Valois dynasties, see Ann Katharine Isaacs, "Impero, Francia, Medici: orientamenti politici e gruppi sociali a Siena nel primo Cinquecento," in *Firenze e la Toscana dei Medici nell'Europa del '500*, vol. 1, ed. Giancarlo Garfagnini (Florence, Italy: Leo S. Olschki, 1983), 249–70.

¹¹ D'Addario, *Il problema senese nella storia italiana della prima metà del Cinquecento*, 75–116.

¹² Cantagalli, *La Guerra di Siena*, 83–101.

¹³ Cantagalli, *La Guerra di Siena*, 102–10. In 1536, the King of France, Francis I Valois (1494–1547), allied with the sultan. The treaty considered the chance of Ottoman-French combined military operations against their common enemies. In 1553, the sultan Suleiman I put his fleet at Henry II's disposal to support his military campaign in Tuscany and to carry the French Army in Corsica for conquering the island. For more on the French-Ottoman alliance, see Édith Garnier, *L'Alliance impie. François Ier et Soliman le Magnifique contre Charles V* (Paris, France: Éditions du Félin, 2008). About the Corsica campaign, see Shaw and Mallett, *The Italian Wars*, 267–68.

¹⁴ D'Addario, *Il problema senese nella storia italiana della prima metà del Cinquecento*, 157–88. Piero Strozzi (1511–58) was a sixteenth-century soldier who served in the French Army for more than 20 years, reaching the rank of marshal of France. For more about Piero Strozzi, see *Dizionario Biografico degli Italiani*, vol. 94 (Rome, Italy: Istituto dell'Enciclopedia Italiana, 2019), s.v. "Piero Strozzi."

Marignano to give chase, thereby forcing the Habsburg-Medicean Army to an unfavorable pitched battle. The first campaign was conducted by Strozzi in Valdinevole (11 June–14 July). Even if Strozzi carried his army in the Medicean dominions, he did not achieve the desired result: in fact, he came back to Siena without engaging with Giangiacomo Medici.¹⁵

Next, the French lieutenant general attempted another attack on the Florentine state, but his second campaign in Valdichiana (17 July–2 August) was a disaster. On 2 August, Giangiacomo Medici intercepted the French-Sienese Army at Marciano and defeated it in two hours. It was only a matter of time before the city capitulated, as Siena did not have enough soldiers to protect itself and the king of France dithered in sending reinforcements. On 17 April 1555, the Republic of Siena surrendered. On 21 April, a section of the Sienese population exited the city with the French Army and moved to Montalcino, where they created the republic-in-exile in the hope that Henry II would send them fresh troops; the war was not yet over.¹⁶ A few days after taking Siena, Cosimo de' Medici decided that he would focus on the conquest of Porto Ercole, thereby cutting off Montalcino's supply lines. Giangiacomo Medici, as usual, was prudent, but Cosimo de' Medici was urged by Andrea Doria to act swiftly and lay siege to Porto Ercole as soon as possible. The Ottoman fleet, led by Dragut Rais, was near entering the Tyrrhenian Sea to support the French-Sienese Army in Tuscany and could thwart a successful conquest of Porto Ercole.¹⁷

THE PORTO ERCOLE DEFENSIVE SYSTEM IN 1555

During the War of Siena, Porto Ercole was the most important harbor of the republic because of the key role it played in the French-Sienese logistics strategy. The other harbor in Sienese hands, Talamone, on the west coast of Italy, was considered dangerous by the government for landing soldiers and supplies because it was close to Orbetello, Tuscany, which had been under the control of the Imperial Army since the end of July 1552. During the war, Henry II's priority was the defense of Porto Ercole, through which he could send provisions and soldiers to the French Army in Tuscany.¹⁸ After the conflict began, French commanders built new fortifications at Porto Ercole to improve its harbor's defensive capabilities (figure 2).

The forts' deep defense system was considered by Simon Pepper and Nicholas Adams “not as a means of controlling lines of communication into the port but,

¹⁵ Cantagalli, *La Guerra di Siena*, 185–256.

¹⁶ Cantagalli, *La Guerra di Siena*, 281–407. For more on the war continued by the Sienese republic-in-exile, see Cantagalli, *La Guerra di Siena*, 475–528.

¹⁷ Archivo General de Simancas, *Estado*, n. 1208, legajo 170.

¹⁸ For example, in April 1554, two Italian infantry companies disembarked at Porto Ercole. In July 1554, Antoine Escalin des Aimars, Baron de La Garde, transported to Porto Ercole 2,000 Gascons, 2,000 *Landsknechte* and two cavalry companies. Alessandro Sozzini, “Diario delle cose avvenute in Siena dal 20 luglio 1550 al 28 giugno 1555,” *Archivio Storico Italiano* 2 (1842): 206; and Antonio de Montalvo, *Relazione della guerra di Siena, scritta l'anno 1557 in lingua spagnola da don Antonio di Montalvo, e tradotta in lingua italiana da don Garcia di Montalvo, suo figlio* (Turin, Italy: Tipografia V. Vercellino, 1863), 69.

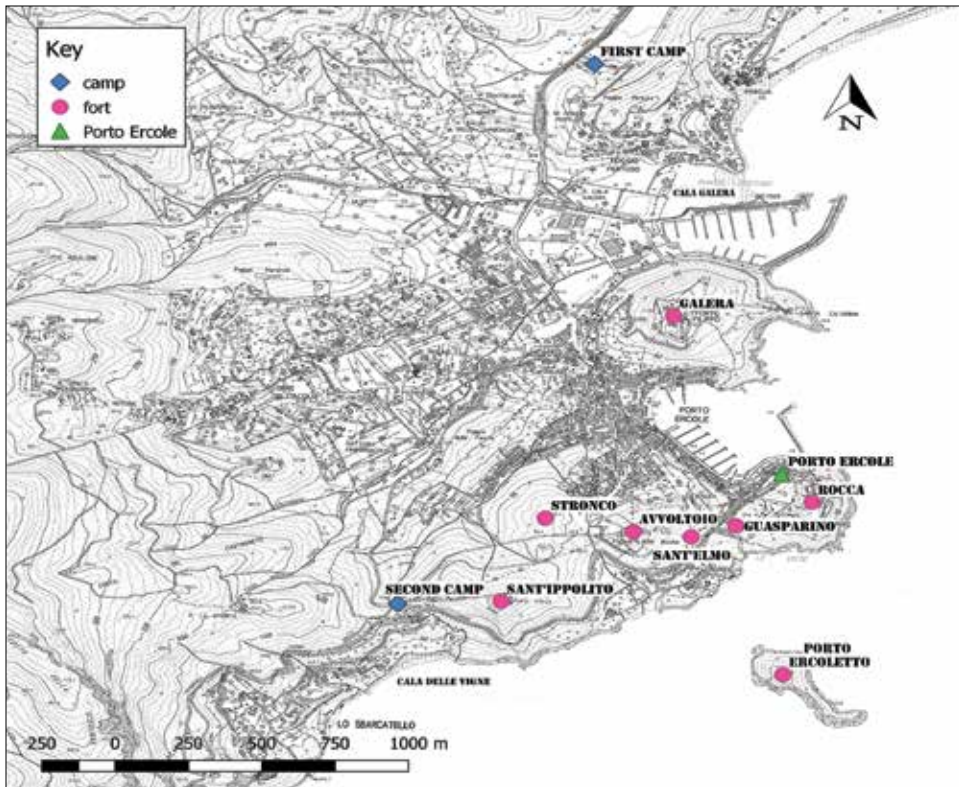


FIGURE 2
The siege of Porto Ercole: Imperial Florentine camps and French-Siennese forts.
Qgis elaboration

simply, an obstacle.”¹⁹ The Porto Ercole fortification system comprised seven “mutually supporting” forts. Thus, the fortification system, from the north to the south, consisted of Galera, Sant’Ippolito, Stronco, Avvoltoio, Sant’Elmo, Guasparino, the Rocca of Porto Ercole, and Porto Ercoletto. Each fort was built to protect a specific area and support nearby fortifications. The Galera fort protected both the Cala Galera shore and the port’s access. The line of forts, from west to east, consisted of Sant’Ippolito, Stronco, Avvoltoio, Sant’Elmo, Guasparino, and the Rocca. The last, the Porto Ercoletto fort, protected both the entrance of the harbor and Lo Sbarcatello, the only shore between Porto Ercole and Punta Avvoltoire.²⁰

It is unclear who masterminded Porto Ercole’s fortifications, but it has been assumed by scholars that the original project was by Paul de la Barthe, maréchal (marshal) de Thermes, who arrived in the autumn of 1552 to ascertain whether the village was defensible. On that occasion, he probably planned the construction of new forts

¹⁹ Pepper and Adams, *Firearms and Fortifications*, 152.

²⁰ Pepper and Adams, *Firearms and Fortifications*, 143–47, the quote is on page 144.

to protect the harbor. Next, Thermes's plan was modified by Leone Strozzi in 1554 and completed by his brother Piero in the spring of the following year.²¹ However, at the end of May 1555, except for the Sant'Ippolito fort, Porto Ercole's fortifications were complete, and Piero Strozzi distributed an army of about 1,000 troops among the various garrisons.²² Thanks to the high-quality force garrisoned in these fortifications, Strozzi planned to resist a long siege, waiting until the end of June for the Ottoman fleet, whose arrival would have forced the marquis of Marignano to withdraw.²³

PRELIMINARY OPERATIONS: THE RECONNAISSANCE

At the beginning of May, Cosimo de' Medici appointed military experts Giulio Alfani and Captain Giovanni Pazzaglia to go to Maremma to conduct a reconnaissance of Porto Ercole and the surrounding area.²⁴ Periodically, Alfani and Pazzaglia sent reports to the duke of Florence about the size of the French-Sienese Army in Porto Ercole and about the progress in building fortresses around the village. Moreover, Pazzaglia attached detailed maps of the forts built by Piero Strozzi in his letters. The drawings were necessary to plan the tactics accurately and decide on the best side to attack the village.²⁵ This was very important for the marquis of Marignano who, once he arrived in Porto Ercole, knew exactly where Strozzi had built the forts. However, Alfani and Pazzaglia overestimated Porto Ercole's defensive capabilities in their reports. They observed the forts' working progress and they were worried about it.

Alfani and Pazzaglia's first letters, written at the beginning of May, outlined a favorable situation: the forts around Porto Ercole were incomplete, and Strozzi had not built a fortification on the top of Sant'Ippolito hill yet. This was strategically the most important point in the area because it permitted domination of the village as well as protection from ground assaults. In the days that followed, Giovanni Pazzaglia conducted a reconnaissance of Porto Ercole from the sea on a ship belonging to Marco Centurione, admiral of the Florentine fleet. On 18 May, he sent a letter to

²¹ Pepper and Adams, *Firearms and Fortifications*, 144, 219n11.

²² From archival sources, it is possible to deduce that each fort had a garrison of approximately 100 soldiers, whereas the village had 400 fighters. Della Monaca, *La presa di Porto Ercole*, 200.

²³ William B. Turnbull, ed., *Calendar of State Papers Foreign: Mary 1553-1558* (London, UK: Her Majesty's Stationery Office, 1861), n. 387.

²⁴ Giulio Alfani was a sixteenth-century military architect or, in other sources, *bombardiere* (gunner), of Florentine or Lombard origin. Alfani fought in the sieges of Siena (January 1554-April 1555), Porto Ercole (May-June 1555), and Radicofani (October 1555) in Tuscany. Carlo Promis, *Biografie di ingegneri militari italiani dal secolo XIV alla metà del XVIII* (Turin, Italy: Fratelli Bocca librai, 1874), 663-65. Captain Giovanni Pazzaglia was a military architect from Pistoia. In October 1555, after the siege of Porto Ercole, he was in charge of artillery management in the siege of Radicofani. Giovanni died at the beginning of 1556 due to injuries suffered by a gunshot as he was defending Santa Fiora (Tuscany), under siege by Ottavio Farnese's army. Promis, *Biografie di ingegneri militari italiani*, 663-65.

²⁵ The idea of taking the Sant'Ippolito fort was suggested by Giovanni Pazzaglia, who planned to place an artillery battery there to bombard fortifications around Porto Ercole. Archivio di Stato di Firenze, *Mediceo del Principato*, n. 446, c. 399r, hereafter ASE, *MdP*.

Florence in which he explained that Piero Strozzi had started to build two forts: one on Sant'Ippolito hill and the other on the Porto Ercoletto island. In Pazzaglia's opinion, the Imperial Florentine forces should attack as soon as possible because "if they finish constructing it [the Sant'Ippolito fort] comfortably, we will have great trouble in taking it."²⁶ Moreover, he was worried about the fort that Strozzi was building on Porto Ercoletto because it would have been a "great trouble to disembark artilleries on the shore [Lo Sbarcatello]."²⁷ Persuaded by Alfani and Pazzaglia's misleading opinions, Giangiacomo Medici himself overestimated Porto Ercole's fortification system.²⁸

THE SIEGE OF PORTO ERCOLE FROM 25 MAY TO 2 JUNE: FIRST PHASE

Whereas Giulio Alfani and Giovanni Pazzaglia were conducting a reconnaissance of the area around Porto Ercole, Giangiacomo Medici, the marquis of Marignano, was moving from Siena to Maremma. On 18 May, the Imperial Florentine forces reached Montepulciano. Here, the artillery was left behind to enable the army to march faster.²⁹ Two days later, the marquis of Marignano arrived in Pienza and decided immediately to make for Porto Ercole, which was still 100 km away. By 24 May, the Imperial Florentine troops arrived in Ansedonia (near Orbetello) after marching in the rain and over hilly terrain.³⁰

On 25 May, the marquis of Marignano moved southward from Ansedonia to Porto Ercole with 5,500 infantry and 500 cavalry troops.³¹ In the afternoon, when the Imperial Florentine forces were marching across the spit of land called Tombolo di Feniglia, the vanguard units were ambushed by French-Sienese soldiers. The skirmish was intense and could have been a disaster for the Imperial Florentine troops, but the onset of dusk stopped the fighting. The following day, Giangiacomo Medici placed his camp behind Pertuso hill, far from the enemy's artillery. Then, around midday, Chiappino Vitelli left the camp at the head of 1,200 Spanish infantry and three companies of *Landsknecht* (German mercenaries) and directed them to the Sant'Ippolito fort. This force walked for hours and reached the fortification at night. Two hours

²⁶ ASF, *MdP*, n. 446, c. 374r.

²⁷ ASF, *MdP*, n. 446, c. 374r. Pazzaglia's worries were also confirmed by Marco Centurione, who was off the coast of Porto Ercole. ASF, *MdP*, n. 446, c. 409v.

²⁸ During the first reconnaissance in mid-May, Giovanni Pazzaglia wrote that the Porto Ercoletto fort was a very well-constructed building. Once he could see it in person (2 June), instead, he noticed that his eyes "had misled a lot": it was in a weak position and dominated by the Avvoltoio and Stronco forts. Della Monaca, *La presa di Porto Ercole*, 260–61.

²⁹ The marquis of Marignano expected Andrea Doria to provide artillery and supplies to his forces directly in Porto Ercole. Pepper and Adams, *Firearms and Fortifications*, 141–42.

³⁰ Pepper and Adams, *Firearms and Fortifications*, 141–43.

³¹ The marquis of Marignano's forces were composed of 11 companies of *Landsknecht* (2,500 fighters); nine Spanish companies (900 soldiers); about 2,000 Italians that included the *tercio* of Naples (12 companies) and five companies led by Capt Alarcone; in addition, there were 500 cavalymen. Della Monaca, *La presa di Porto Ercole*, 200.

before dawn, he ordered the troops to storm the Sant'Ippolito fort from the southwest side and, at the same time, the marquis of Marignano attacked the other forts to prevent them from conducting sorties in support of the garrison under attack. The French-Sienese defenders' resistance was hard, but Vitelli's numerical superiority overwhelmed them.³²

After the conquest of the Sant'Ippolito fort, the marquis of Marignano moved his camp from Pertuso to Cala delle Vigne, which had a shore (Lo Sbarcatello) that could be used to offload artillery and supplies. As Pazzaglia noticed, the cannon within the Porto Ercoletto fort kept ships at least 2–3 Florentine miles (about 3.3–4.9 km) away.³³ In this situation, Giangiacomo Medici planned to conquer Porto Ercoletto with a surprise attack.³⁴ He was worried due to the forthcoming arrival of the Ottoman fleet in support of the French-Sienese Army in Tuscany. So, the Imperial Florentine captain-general chose the night of 28 May for the raid.³⁵ Unfortunately, owing to organizational problems, the operation was aborted.³⁶

Inexplicably, Giangiacomo Medici changed his mind and fixed the raid for the night of 2 June. It is possible that he reconsidered his previous plan of transporting the cannons by land. This was probably because of the difficulties faced in carrying many cannons from the Pertuso camp to the second one in Cala delle Vigne.³⁷ Moreover, his troops were complaining about the lack of food and wine and it is possible that the marquis of Marignano was swayed by a French-Sienese deserter who arrived in his camp on 1 June. This man told Giangiacomo Medici that soldiers in the enemy garrisons were in a “big scare” and they did not want to fight anymore.³⁸ In this situation, the Imperial Florentine captain-general perceived that an immediate raid against Porto Ercoletto had to be undertaken on 2 June.

PREPARATION FOR THE ATTACK ON PORTO ERCOLETTO, 1 JUNE 1555

There is no precise information in the letters and reports about the preparations for Vitelli's assault landing against Porto Ercoletto, but it is possible to deduce what

³² Della Monaca, *La presa di Porto Ercole*, 198–99, 201–2.

³³ AFS, *MdP*, n. 447, c. 48r. Vitelli made the same consideration. ASF, *MdP*, n. 1853, c. 1060r.

³⁴ Porto Ercoletto's garrison was 100 people strong and equipped with seven *archibugi da posta* and one *moschettone* (both are types of muskets); moreover, the fort was also protected by a medium-caliber cannon. Della Monaca, *La presa di Porto Ercole*, 260.

³⁵ AFS, *MdP*, n. 446, c. 665r.

³⁶ AFS, *MdP*, n. 446, c. 737r.

³⁷ It is important to highlight the fact that the transport of artillery and supplies by sea was easier and faster than by inland routes. David J. B. Trim, “Medieval and Early Modern Inshore, Estuarine, Riverine and Lacustrine Warfare,” in *Amphibious Warfare*, 361–62.

³⁸ ASF, *MdP*, n. 447, c. 29r, quoted by Della Monaca, *La presa di Porto Ercole*, 204. The deserter referred to the fact that Piero Strozzi was forced to shell out 1 *scudo* (gold or silver coin) to each soldier to pacify his army.

happened by piecing together a few details from archival sources. On the afternoon of 1 June, Chiappino Vitelli gathered 300 Spanish soldiers, perhaps at Orbetello or on a shore beyond Cala Galera or on Punta Avvoltore. Then, Vitelli distributed the 200 fighters to 25 skiffs and allocated the rest to the two galleys (50 soldiers each).³⁹ This decision was primarily dictated by two factors: secrecy and safety.

The fort at Porto Ercoletto was considered difficult to conquer because of its 100-fighter strong garrison and the presence of a cannon that prevented ships from coming closer than about 3.3–4.9 km.⁴⁰ The only way to avoid Piero Strozzi's counter-moves was to attack it by surprise. Obviously, it would have been impossible to preserve secrecy if the storming party had boarded the vessels in locations that were adjacent to Porto Ercole.

Despite the storming party having only 300 Spaniards, the boarding operations took a long time, leaving them exposed and vulnerable.⁴¹ The Cala Galera shore was dominated by the Galera fort, from where Strozzi could have launched sorties and easily ambushed the soldiers waiting to embark. Instead, Lo Sbarcatello could have been targeted by the cannon placed on the Porto Ercoletto fort; so, it was extremely perilous to get soldiers onboard under enemy fire.⁴² For sure, soldiers brought with them many ladders, necessary to climb fort walls, and likely wore white shirts or surcoats (long robe worn over armor), which was the practice during night assaults to distinguish themselves from their foes.

THE ATTACK, 2 JUNE 1555

Around midnight on 2 June, Chiappino Vitelli ordered his infantry to row from their line of departure toward Porto Ercoletto under the cover of darkness.⁴³ Despite Giorgio Vasari's representation on his well-known fresco and Antonio Montalvo's report in which Vitelli's landing force launched an assault on "many parts" of the island,

³⁹ ASF, *MdP*, n. 1853, c. 1060r. On night surprise raids, the so-called *encamisadas*, derived from the soldiers' habit of wearing a *camisa* (shirt). See Maurizio Arfaoli, *The Black Bands of Giovanni: Infantry and Diplomacy during the Italian Wars (1526–1528)* (Pisa, Italy: Pisa University Press, 2005), 129n395.

⁴⁰ ASF, *MdP*, n. 1853, c. 1060r.

⁴¹ As Fissel noted, ships that moved close to the shore to carry out boarding and disembarking operations, "especially in the face of fire or with the enemy present," were at risk until the seventeenth century. Mark Charles Fissel, "English Amphibious Warfare, 1587–1656: Galleons, Galley, Longboats and Cots," in *Amphibious Warfare*, 221.

⁴² Moreover, it was very difficult to move toward Lo Sbarcatello with two galleys during the day without engaging in a firefight with the garrison in the fort; additionally, there was no information about it in the letters. As many letters explained, Porto Ercoletto fort "prevented any ship" from approaching the shore near the second camp. ASF, *MdP*, n. 447, c. 48r.

⁴³ AFS, *MdP*, n. 447, c. 62r.

it seems more reliable that the plan was different.⁴⁴ Considering that the marquis of Marignano and Vitelli together planned the amphibious attack on the basis of Giovanni Pazzaglia's reports and the map he drew in mid-May, there is a possibility of a different kind of assault, instead of one during which the landing force disembarked on each side of the island.

Captain Pazzaglia, who saw the fort from a small ship, was sure that the hilltop of Porto Ercoletto had a three-bastion triangular fort—two of the bastions were on the north east side, and the third was diagonally opposite.⁴⁵ It is clear that attacking the fort from the southeast was easier for several reasons. First, the southeastern side was closer to the place chosen for the attack. Second, the southeastern bastion was the worse flanked. Third, this side had a small shore where skiffs and the two galleys could dock. Fourth, there was a small road leading to the island's hilltop. Finally, from the northwest side, it was more difficult to reach the hilltop because of a declivity of 40 percent in a 100 meter climb. Therefore, it seemed reasonable to land the bulk of the raiding party on the southeastern shore near the place labeled *guardia* (guardhouse) on Pazzaglia's map (figure 3).⁴⁶

The first wave of landing troops comprised 200 fighters carried on skiffs. They were not only fast but quiet. Although it is not clearly mentioned in the letters, it seems that once the Spaniards were ashore, they faced sentinels guarding the landing area. However, even if one presumes that Vitelli's force overwhelmed the defenders before they sounded the alarm, it was evident within minutes to the French-Sienese soldiers in the fort that they were under attack. After the beachhead was taken, the 100 Spaniards on the two galleys landed too. The hilltop defenders probably heard the footsteps of 300 soldiers who disembarked from the skiffs and the two galleys in military gear and marched on the rough road leading to the fort. The French-Sienese garrison was alarmed and soldiers took positions behind the ramparts. Aware of this, Vitelli was certain that his fighters could easily overwhelm the defenders because of their numerical superiority.⁴⁷

While the besieged were preparing for combat, Vitelli organized his force and planned to make the troops run 200 meters uphill on the small rough road that was exposed to enemy fire. The Spaniards were aware that they had to move forward to

⁴⁴ Montalvo, *Relazione della guerra di Siena*, 162. The author argues that this is not completely accurate; in fact, it is possible that Montalvo did not recall well the details of this operation in 1557, when he wrote his book; further, 10 years later, Vasari's representation reflected this inaccuracy. On the contribution of Montalvo to Vasari's fresco, see Pepper and Adams, *Firearms and Fortifications*, 150–52. Concerning a military perspective on Vasari's frescos in Sala dei Cinquecento, see Maurizio Arfaioli, "The 'Inconsistent Knight': Iconographic and Military *Maniera* in Vasari's *Battle of Marciano*," *Source: Notes in the History of Art* 30, no. 1 (Fall 2010): 37–42, <https://doi.org/10.1086/sou.30.1.23208529>. For an analysis of Vitelli's role in Vasari's frescoes, see Arfaioli "Alla destra del Duca."

⁴⁵ Giovanni Pazzaglia was able to move closer to the island more than about 3.3–4.9 km because he was on a *fregattina* (small frigate). ASF, *MdP* n. 446, cc. 409r–409v.

⁴⁶ ASF, *MdP*, n. 446, c. 375r.

⁴⁷ ASF, *MdP*, n. 1853, c. 1060r.

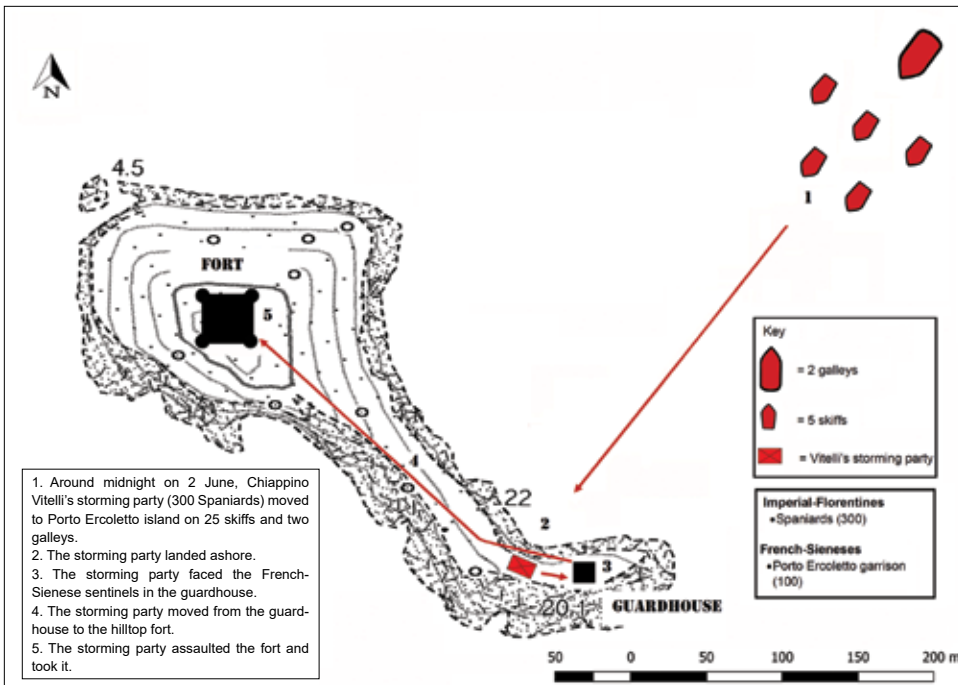


FIGURE 3
Vitelli's night attack.
Qgis elaboration

survive. For the last one-tenth of the climb, before reaching the walls of the fort, the declivity of the road rose to 40 percent. It is very difficult to imagine Vitelli's feelings and those of his soldiers when they finally arrived. They must certainly have been short of breath, tired from the weight of the military gear, and within shooting range of the arquebuses (matchlock handgun), muskets (a long gun supported on a tripod or forked rest), and solitary cannon.⁴⁸ Now, they realized that Pazzaglia had made a terrible mistake in drawing a triangular fort. It was, in fact, square with a bastion at each corner. Each side of the fort was flanked, and it was more difficult to approach the walls than a bastion because being in enfilade left them exposed.

However, aware of their numerical superiority, the Spaniards did not lose heart, and used the ladders to start climbing the walls. In a few minutes, the soldiers burst into the fort. The battle lasted for an hour and, as Chiappino Vitelli acknowledged, the besieged soldiers fought "valiantly" but were overwhelmed.⁴⁹ The Imperial Florentine forces' casualties were negligible, whereas 60 of the 100 French-Sienese defenders, including the captain of the outpost, were killed. After the raid ended, Chiappino

⁴⁸ Della Monaca, *La presa di Porto Ercole*, 260.

⁴⁹ ASF, *MdP*, n. 1853, c. 1060r.

Vitelli took the remaining 40 as prisoners. He showed no mercy on his captives and ordered all of them to be killed.⁵⁰

THE SIEGE OF PORTO ERCOLE, 2–18 JUNE: SECOND PHASE

The conquest of Porto Ercoletto represented a turning point in the siege because possessing it would have allowed the Habsburg-Medicean coalition to control the beachhead at Lo Sbarcatello, and Admiral Doria could have safely offloaded the artillery (six cannons and two culverins) necessary to bombard the Stronco fort.⁵¹ In contrast, the situation became favorable for the Imperial Florentine coalition. With Porto Ercoletto under its control, Admiral Doria's fleet blocked the harbor's access from the sea and the army could attack Porto Ercole by land. The marquis of Marignano, who was a cautious commander, meticulously planned his next assault, aware that it was a matter of time before Porto Ercole capitulated. Between 3–5 June, he established his artillery and on 8 June, he ordered the bombardment of the Stronco fort, leading to many casualties on the enemy side. Finally, three hours before sunset, Chiappino Vitelli stormed the fortification with a huge contingent of Spaniards and Germans, but the attack was repulsed. The assault failed due to a misunderstanding between German and Spanish troops about a command issued. They assaulted the fort at different times and not at the same moment as planned. That night, Piero Strozzi realized Porto Ercole could not be defended, and he escaped in two galleys, lowering the morale of the besieged.⁵²

The marquis of Marignano was worried about the failure of another assault, so he moved the artillery battery northward to the Stronco fort and bombarded it for many days. On 12 June, two hours after dusk, soldiers in the Stronco, worried about the impending Imperial Florentine assault, tried to escape, but they ran into the besiegers and were executed: this fort was now in the hands of the marquis of Marignano.⁵³

Once the Stronco fort was taken, Giangiaco­mo Medici directed his attention to the Avvoltoio fort, which was protected by 100 *Landsknechte*. On 15 June, the Imperial Florentine captain-general deployed his artillery battery. On 16 June, the fort was bombarded, and the *Landsknecht* captain surrendered the next day. After the fall of the Stronco garrison, those at the Sant'Elmo and Galera forts surrendered.⁵⁴ Finally,

⁵⁰ Turnbull, *Calendar of State Papers Foreign*, n. 388. As Chiappino Vitelli wrote to Cosimo de' Medici, they "hacked to death the enemy soldiers." ASE, *MdP*, n. 1853, c. 1060r. This information is confirmed in other letters, such as ASE, *MdP*, n. 447, c. 83r, where Lucantonio Cuppano, the governor of Piombino, wrote that soldiers were "all cut into pieces."

⁵¹ Giovanni Antonio Pecci, *Memorie Storico-Critiche della Città di Siena fino agl'anni MDLIX*, vol. 4 (Siena, Italy: Vincenzo Pazzini Carli, 1760), 247. The conquest of Porto Ercoletto, also permitting the disembarking of supplies, had a positive effect on besiegers' morale. ASE, *MdP*, n. 447, c. 48r.

⁵² Pepper and Adams, *Firearms and Fortifications*, 159.

⁵³ Pepper and Adams, *Firearms and Fortifications*, 159–60.

⁵⁴ Pepper and Adams, *Firearms and Fortifications*, 160.

on 18 June, the captain of the Rocca, at that time the new commander-in-chief of the French-Sienese Army, capitulated.⁵⁵

CONCLUSION

This chapter showed how an amphibious special operation worked during the sixteenth century by analyzing the night assault on Porto Ercoletto led by Chiappino Vitelli.⁵⁶ The captain-general of the ducal cavalry had a small, select force of 300 troops chosen based on their supposed skills. Vitelli built an ad hoc storming party to capture an infrastructure (the Porto Ercoletto fort), which had a key role during the siege, to free the shore of Lo Sbarcatello for offloading artillery and supplies. It was not by chance that this special operation represents the turning point of the siege of Porto Ercole. After taking the island of Porto Ercoletto, it was only a matter of time before Porto Ercole capitulated. Giangiacomo Medici, agreeing with Vitelli, decided to take Porto Ercoletto through a night raid. The main objective was to optimize resources to obtain a tactical result with the minimum of effort.⁵⁷

The text highlights how crucial the collection of information was in planning a special operation, and how it could determine the success or failure of a tactical plan. Giovanni Pazzaglia, while observing the island from the sea, committed a dangerous error of drawing a triangular fort rather than a square one. The sketch influenced Giangiacomo Medici and Chiappino Vitelli's planning for the night attack that, as a consequence of the wrong drawing, could have turned into a real disaster. The storming party moved fast from the beachhead to the hill to minimize the French-Sienese garrison's reaction; so, it could only discover the real fort layout when it was near the walls. On that occasion, Vitelli demonstrated all of his talents as a military leader because he immediately changed his plan. Further, the importance of spies and deserters cannot be underestimated. It is possible to argue that the marquis of Marignano established the Porto Ercoletto night attack after talking with the French-Sienese deserter (1 June), who explained that the enemy army was close to mutiny.

The decisive factor in the success of the special operation was secrecy, partic-

⁵⁵ This captain was probably Christophe Jouvenel, seigneur de la Chapelle des Ursins, baron of Arme-nonville, who Piero Strozzi, before he fled in the night on 8 June, appointed to the rank of commander in chief. Pepper and Adams, *Firearms and Fortifications*, 160; and Della Monaca, *La presa di Porto Ercole*, 209–13, 215–17, 219.

⁵⁶ Considering the Porto Ercoletto night assault in relation to the conquest of Porto Ercole, it could be defined as a contemporary preassault operation. Despite this, Porto Ercole's capture should not be considered at a tactical level, but in a strategic one. The Imperial Florentine forces moved to this harbor to cut off the Sienese republic-in-exile supply lines by the sea.

⁵⁷ In this sense, it is possible to compare the amphibious special operation of Porto Ercoletto with Blaise de Monluc's night raid at the mill of Auriol (Provence) on 19–20 August 1536. Monluc led a selected small storming party, whose forces were nearby an infantry company, to destroy the mill. Even in the case of the mill of Auriol a small selected force could achieve the best result with the minimum of effort obtaining the Imperial army cut off by its supply lines. For more on Monluc's special operation at the mill of Auriol, see Harari, *Special Operations in the Age of Chivalry*, 163–83.

ularly to keep Strozzi in the dark about movement of Imperial Florentine troops and to prevent the reinforcement of the Porto Ercoletto garrison with more soldiers, thereby making the night raid harder. The marquis of Marignano, a master in siege warfare and a careful organizer of operations, informed only a few commanders of his planned attack. Soldiers embarked at a shore far from Porto Ercole and were transported by sea to the place chosen for the landing assault.

Another interesting point about the attack on Porto Ercoletto was the selection of soldiers for the storming party. In the sixteenth century, the majority of amphibious operations were conducted by nonspecialized infantry units.⁵⁸ This fact confirms, however, that the soldiers were selected for tactical employment on the basis of their supposed skills. The Imperial Florentine forces around Porto Ercole were composed of Italian, German, and Spanish soldiers, but Chiappino Vitelli chose only the Spaniards for his storming party. The Spaniards were, in fact, renowned as the best warriors in skirmishes and special operations during the Italian Wars.⁵⁹

The author argues the importance of the attack on Porto Ercoletto in the context of the siege of Porto Ercole. However, the siege of Porto Ercole should be analyzed within the War of Siena's general frame. The conquest of this port had a strategic role for the Imperial Florentine campaign: the Siennese republic-in-exile in Montalcino was cut off by its supply lines and could not have received more reinforcements by the sea. Despite the night assault on Porto Ercoletto being neglected for its historical importance, it could be considered, given its objective, a textbook example of an amphibious special operation.

⁵⁸ The oldest early modern marine force was the *Tercio de Galeones* (1528), established by Charles V as a permanent unit that could be assigned to the Spanish fleet in the West Indies (South America). The real prototype for Spanish *infantería de marina* (marines) was the *Compañías Viejas del Mar de Nápoles* created during the 1530s in order to protect the galleys of his Mediterranean fleet. However, it would be only under the reign of Philip II, in 1564, that the Spanish crown built the first marine units conceived as a landing force. See Francisco-Felipe Olesa Muñido, *La organización naval de los estados mediterráneos y en especial de España durante los siglos XVI y XVII*, vol. 2 (Madrid, Spain: Editorial Naval, 1968), 789–845; and Magdalena de Pazzis Pi y Corrales, *Tercios del Mar. Historia de la primera Infantería de marina Española* (Madrid, Spain: La Esfera de los Libros, 2019).

⁵⁹ Idan Sherer, *Warriors for a Living. The Experience of the Spanish Infantry in the Italian Wars, 1494–1559* (Leiden, Netherlands: Brill, 2017), 197–201. Generally, Italian mercenary units were also considered good at skirmishes and special operations. On this occasion, Vitelli probably chose Spaniards because he considered them to be more reliable. On the tactical employment of Italian infantrymen, see Arfaoli, *The Black Bands of Giovanni*, 12–20.

CHAPTER TWO

The 1574 Siege of Leiden during the Eighty Years' War

Attack by Land, Relief by Sea

Samuel de Korte

In April 1566, a group of approximately 300 nobles approached the governor of the Spanish Netherlands, Margaret of Parma, to hand her a petition. In this petition they protested against the Inquisition in the Netherlands and the prosecution of Protestants, but not against the Spanish king. Parma was a bit nervous about the meeting and one of her advisors, Charles de Berlaymont, allegedly said: “*N'ayez pas peur, Madame, ce ne sont que des gueux,*” which translates to: “Do not be afraid, Madam, they are just beggars.”¹ The nobles would eventually take ownership of this moniker and call themselves *watergeuzen* (sea beggars). While the rebels might have been perceived as beggars, they proved to be a difficult foe to defeat for the Spanish crown. With their ships, they harassed the Spanish loyalists and liberated Dutch towns. One of the cities they liberated was the strategically important city of Leiden, which had been besieged by Spanish forces from October 1573 to March 1574 and May 1574 to October 1574 (figure 4). Leiden allowed the controlling army to threaten the surrounding cities. As both sides controlled some of these towns, it was important to wrest the city from the enemy. When the Spanish forces laid siege to Leiden, Willam

¹ Please note that full rank and name is used throughout where possible. In many instances, the records were incomplete and only a surname is available. Friso Wielenga, *Geschiedenis van Nederland: Van de Opstand tot heden* (Amsterdam, Netherlands: Boom, 2013), 36.

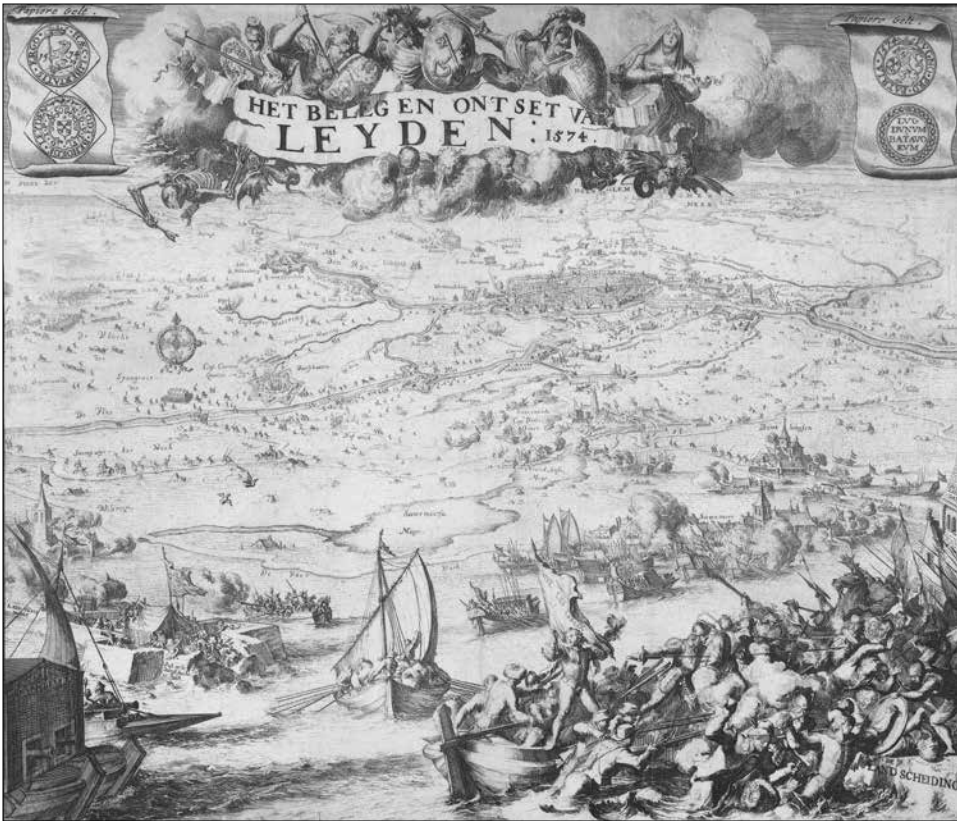


FIGURE 4

The siege and relief of Leiden in 1574. A map of the area shows the approach of the relief fleet. In the foreground, the *geuzen* are fighting with Spanish soldiers on the *Landscheiding*. In the clouds, similar combat takes place between the forces of good and evil. On the upper corners, examples of the paper emergency money that was printed during the siege are visible.

Print by Romeyn de Hooghe, between 1687 and 1691, courtesy of Rijksmuseum, Amsterdam

van Oranje decided that the city was to be held and even needed to be freed from the Spanish threat.² This liberation happened in a rather unusual fashion.

During the Dutch revolt against the Spanish rulers, they turned an unusual feature of the Dutch land into their greatest asset. Because most of the land sits below sea level and is kept that way by a system of dykes and drainage, the Dutch pierced dykes to hamper enemy movement or to turn land combat into naval warfare. In October 1573, the siege of Alkmaar was ended when the Dutch pierced the dykes and

² Judith Pollman, “een blij-eindend treurspel,” in Herman Amersfoort, Hans Blom, Dennis Bos en Gijssbert van Es, eds., *Belaagd en Belegerd: Troje, Carthago, Jeruzalem, Constantinopel, Leiden, Batavia, Wenen, Yorktown, Parijs, Verdun, Leningrad, Berlijn, Sarajevo, Beiroet* (Amsterdam, Netherlands: Uitgeverij Balans, 2011), 123.



FIGURE 5
 Habsburg Netherlands between
 1514 and 1715. The red line in the
 middle is the border between north-
 ern Netherlands and
 southern Netherlands.
Map by Jean-Baptiste Gochet

the Spanish troops were forced to retreat. However, the tactic of inundation, intentionally flooding the land, was pushed further when the Dutch used this ploy to sail their troops toward the city of Leiden in 1574.³

THE SEVENTEEN PROVINCES

The Seventeen Provinces—the imperial states of Habsburg Netherlands in the sixteenth century and roughly encompassed by contemporary Belgium, Luxembourg, and the Netherlands—were united under Charles V, king of Spain, duke of Burgundy, and the Holy Roman emperor, who managed to conquer or become through inheritance the ruler of the various Dutch territories (figure 5). However, these territories still remained separate entities. Overall, the whole formed a more-or-less unified area that was a major source of income through taxes for the Spanish Habsburgs, one that they could not afford to lose. In October 1555, Charles V abdicated his various thrones, leaving Spain and the territories of the Netherlands to his son Philip II. His

³ From the Latin word *inundare* meaning to flood.

abdication was largely the result of his inability to suppress the Protestant Reformation. One of Charles V's regrets was his inability to maintain Christian unity within his territory. Tensions continued to increase in the Netherlands between religious factions due to the suppression of Protestants by the Catholic government.

A remarkable amount of the Dutch territory sits below sea level, where the population is kept safe through a system of canals, dykes, and drainage pipes. The canals and inland waters had the additional benefit of allowing for the transportation of goods along them with the use of special barges built to maneuver the shallow waters. There were also tugboats, which were pulled along by people or horses on the shores. These vessels could be loaded with more supplies than carts as it was easier to drag them through water than on land.

However, water still threatened the Dutch people and the lands behind the dykes. Breaches or holes presented a danger to farmland beyond the water, as the land would be rendered useless, the buildings could be damaged, and the loss of human lives and livestock would be significant. Furthermore, the rivers were also tamed by building dykes and sluices to control their flow. However, storms were potential disasters and presented dangerous situations, such as the one that occurred during the All Saints flood in 1570, where several villages along the Dutch coast were swallowed by the sea.

SEA BEGGARS

While Charles V was a native of Ghent, Belgium, who was frequently in the Netherlands and was thus regarded highly by his Dutch subjects, Philip ruled from Spain and proved to be unpopular with the population in the Low Countries. While the citizens were frustrated by the heavy taxes levied by the Spanish crown, resistance to his rule grew, especially as trouble brewed to boiling in the Netherlands over religion. Calvinists condemned the worshiping of icons and the riches of the Catholic Church. Violence erupted with an iconoclastic fury in 1566, called the *Beeldenstorm* (iconoclasm), when Catholic churches and religious institutions were raided by Calvinists and religious images destroyed. Protestantism was also taking root, but the Spanish king was a Catholic and tolerated no heresy, issuing more heresy placards making religious dissent a capital offense. Local authorities and courts resented royal interference in their jurisdictions, which further increased the hostility to Philip's rule.⁴

There were those who sided with the opposition, such as the nobleman Willem van Oranje (William of Orange), who had been educated in diplomatic and military affairs. Raised as a Protestant by birth, he received an excellent education at court in his ancestral lands, the County of Nassau-Dillenburg in Germany and the family's estate in Breda, Netherlands. To inherit the title of prince of Orange, Willem was required to convert to Catholicism. In 1559, he was appointed *Stadtholder* or executive officer of the provinces Holland, Zeeland, and Utrecht.⁵ Even so, van Oranje would

⁴ Wielenga, *Geschiedenis van Nederland*, 31-39.

⁵ Wielenga, *Geschiedenis van Nederland*, 33.

become the leader of the Dutch resistance to Philip II, a resistance effort that depended heavily on zealous Calvinist nobles and merchants for its ultimate success.

When, in an attempt to ease the tensions, the group of aristocrats approached Margaret of Parma in April 1566 to hand her a petition against the inquisition, Margaret suspended the notices against heresy temporarily—but this attempt would ultimately fail and the Dutch rebellion grew. The tensions continued to escalate and, in 1568, the rebellion resulted in open conflict, where the rebels, led by Willem van Oranje, were defeated in a series of battles by the Spanish Army.⁶ A new tactic was needed and found in the *watergeuzen* (geuzen, for short). These “sea beggars” were displaced persons, wanted nobles, freebooters, adventurers, and other people who had taken to life at sea for various reasons. They remained economically soluble through a variety of commercial enterprises but supplemented their coffers by plundering the trade in the Seventeen Provinces. The geuzen harried the coastline and carried their booty back to Britain, where they had been allowed to harbor. However, to prevent further problems with the Spanish crown, in 1572, Queen Elizabeth I of England denied them entry.⁷

Without a port to call home, the fleet set sail to the north of the Netherlands to attack the town of Enkhuizen, but due to the winds they landed in the south of Holland.⁸ After receiving advice from local ferryman Jan Koppestok, the geuzen attacked and took Den Briel, in the south of Holland in April 1572. Rather than leaving again, the geuzen decided to stay and placed their canons on the walls and flooded the surrounding land to prevent a counterattack.⁹ The revolt soon spread to other towns, ending in open conflict in the northern parts of the Seventeen Provinces of the Netherlands. The result was a war between the followers of Willem van Oranje and loyalists to Philip II of Spain. Caught in between this struggle were the civilians who remained indifferent to who ruled them.

LEIDEN BELEAGUERED

After capturing Den Briel in the name of Willem van Oranje, other towns pledged allegiance to him. In June 1572, the city of Leiden also declared its loyalty to van Oranje. Leiden occupied a strategic position; it was close to the sea and connected by water and road to various other places. The surrounding area was kept dry by dykes and local civilians had waterwheels to keep their fields dry.

In July 1573, Fadrique Álvarez de Toledo, the Spanish infantry commander, split the rebel-held region of Holland by taking the city of Haarlem, despite suffering

⁶ Wielenga, *Geschiedenis van Nederland*, 40–41.

⁷ Anne Doedens and Jan Houter, *De Watergeuzen: een vergeten geschiedenis, 1568–1575* (Zutphen, Netherlands: Walburg Pers, 2018), 12.

⁸ F. Vogels, “Ellert Jansz. Vliechop: een Enkhuizer onder de Watergeuzen,” in *West-Friesland's Oud en Nieuw* (Hoorn, Netherlands: Westfries Genootschap, 1939), 141–50.

⁹ Petra Groen and Olaf van Nimwegen, *De Tachtigjarige Oorlog: Van opstand naar geregelde oorlog, 1568–1648* (Amsterdam, Netherlands: Boom, 2013), 56.

heavy casualties in the siege. Afterward, he turned north to take the city of Alkmaar, where his troops were forced back after the dykes were pierced and the surrounding area flooded.¹⁰ The Spanish troops—also consisting of Belgians, Germans, and Dutch—turned back and that same month, a detachment set up camp around Leiden. Rather than storm the city and suffer many casualties, they planned to starve the city into surrendering. However, the local population had expected a siege and had stockpiled ample supplies to hold them until relief arrived, while others in the city decided to leave town with the approaching trouble. In November 1573, the Spanish Army command had changed as Fadrique Álvarez de Toledo was relieved and replaced by Francisco de Valdez. Don Luis de Requesens y Zúñiga was appointed governor of the Spanish Netherlands to quell the rebellion at the end of 1573.

De Requesens, as a politician and diplomat, lifted the siege at the end of March 1574 as he needed the troops for a battle elsewhere. Leiden was in an optimistic mood because the attackers had been repelled and, despite warnings, failed to prepare for a possible return of the Spanish soldiers. New troops were not recruited, and they failed to demolish or break down the Spanish defensive works. Because the price of food was high at the end of winter, the city wanted to wait until prices dropped to secure new supplies. To cut costs, the troops in service of the town were dismissed by the local government. The city's elite dominated the local government, so many of them appeared indifferent or careless about the looming threat for either economic or religious reasons. As mentioned earlier, some civilians would have simply been indifferent to who ruled.

BATTLEFIELD OF LEIDEN

The siege against Leiden had been lifted in March 1574 because the Spanish troops were needed elsewhere after Lodewijk van Nassau (Louis of Nassau), the brother of Willem van Oranje, invaded the Netherlands from Germany. This resulted in an open battle with de Requesens in April 1574 at the Mookerheide (forest and heathland east of Mook). Van Nassau died, along with many of his troops, but the Spanish failed to capitalize on the victory. Since Philip II had great difficulty raising sufficient funds, Spanish troops demanded payment before they would besiege Leiden again. Valuable time was lost in the ensuing negotiations. Only after the troops had received their salaries did they march to Leiden once more. Since the siege works had not been destroyed, the troops could easily retake them and build several new ones. In May 1574, the Spanish troops returned to the city walls, and in June they closed the ring around Leiden with three defensive lines.¹¹

The city of Leiden was important for both the Spanish and van Oranje, especially with Amsterdam already in the hands of Spanish troops. They were also in Alphen,

¹⁰ S. Groenveld, *Facetten van de Tachtigjarige Oorlog: Twaalf artikelen over de periode, 1559–1652* (Hilversum, Netherlands: Uitgeverij Verloren, 2018), 110–11.

¹¹ Pollman, “Een blij-eindend treurspel,” 122; and Groenveld, *Facetten van de Tachtigjarige Oorlog*, 111.



FIGURE 6

A carpet showing the approach of the relief fleet and events in the last two months of the siege.
The fleet approaches from the right and moves to the left.

Tapestry by Joost Jansz Lanckaert between 1587 and 1589, courtesy of Museum De Lakenhal, Leiden

The Hague, Gorinchem, and Schiedam. If Leiden was taken, Delft, Gouda, and Rotterdam would also be threatened with Spanish capture. Therefore, van Oranje decided that Leiden needed to be held and freed from the Spanish threat.¹²

RELIEF ON THE WAY

Previous efforts at lifting the Spanish siege had failed. As a result, van Oranje decided to turn *Holtland* into *Zeeland*.¹³ Instead of approaching the enemy over land, the relief army would be brought in on ships and sailed toward Leiden (figure 6). To do this, the dykes along the Meuse (*Maas* in Dutch) and IJssel Rivers were pierced, the sluices near Rotterdam, Delfshaven, and Schiedam opened. The whole area surrounding

¹² Pollman, "Een blij-eindend treurspel," 123.

¹³ The term *Holtland* is an old name for Holland, meaning woodland; *Zeeland* translates to Sealand. Therefore, woodland was turned into sealand.

Leiden would be flooded; a costly decision, but the Dutch rebels preferred their “land drowned rather than lost.”¹⁴ That local farmers suffered was accepted as collateral damage. Rather than fighting the Spanish forces on a dry battlefield, the battle would be fought over flooded farmlands. On 3 August, the first dyke was pierced. However, the water did not reach far enough and Valdez tried to convince Leiden’s government to surrender. It would take some time before relief would arrive.¹⁵

The decision was not made easily, as the land would be lost and openings needed to be dug in the dykes to let the water through. The surrounding area would become useless for years due to the brackish waters with higher saline quantities than fresh water. Since the farmers and civilians in the countryside would be forced to move, they could not be expected to approve of this tactic. Trade was interrupted and harvests lost, and the remaining property suffered because of the rising waters. Also, engineers discouraged flooding the countryside, as they suspected that it would be lost forever and could not say with assurance that the water would reach Leiden in any event.¹⁶ This meant that the sacrifices might be in vain. Furthermore, the supporting infrastructure, such as windmills, would be damaged. The water that flooded the area came from the river to the south, instead of the coast, which was closer. The relief fleet thus had to travel a greater distance and more land was ruined.

To break the siege, a relief army prepared to deploy, although a relief navy might be a more appropriate word. Admiral Lodewijk van Boisot, a trusted ally of van Oranje, was chosen to lead the relief fleet. The artillery, sailors, and captains came from Zeeland, while soldiers and other materials were supplied by Holland. Various ships, such as *pramen* (shallow, flat-bottomed boats), primarily used for transporting goods along inland rivers or shallow canals were used in more or less the same function. A few hundred of these vessels were present, while 70 galleys with a shallow depth were brought together. These galleys each carried sailors and rowers, as well as seven or eight soldiers and cannons. All these ships were hastily prepared for the coming journey. Van Boisot arrived with seven larger ships and 800 more sailors.¹⁷ The troops in this fleet consisted of hardened fighters, who proclaimed they would rather be Turks than papists, and they would brook no compromise with the Habsburg enemy. Many of them had clashed with the Spanish troops before.¹⁸

Van Boisot was aided by two French colonels: George de Montigny Noyelles and La Garde. The former had been in Leiden as one of the military commanders during the first siege, but had been dismissed by the mayors after the siege because he had remarked during the siege that three out of four of them ought to be hanged

¹⁴ Andries Willem Bronsveld, *Leiden in 1574* (Utrecht, Netherlands: C. Van Bentum, 1874), 5.

¹⁵ Bronsveld, *Leiden in 1574*, 5.

¹⁶ Groenveld, *Facetten van de Tachtigjarige Oorlog*, 111–12.

¹⁷ R. Fruin, *Het beleg en ontzet der stad Leiden in 1574* (The Hague, Netherlands: Martinus Nijhoff, 1874), 102–3.

¹⁸ Fruin, *Het beleg en ontzet der stad Leiden in 1574*, 103.

for their weakmindedness.¹⁹ La Garde had served as a military officer and a diplomat for many years. The army they commanded consisted of many Walloons and French fighters.²⁰

In the beginning of September 1574, the ships departed from Rotterdam and sailed toward the first dyke, the *Landscheiding* (land separation). Troops were landed on it the next day while soldiers and ships provided covering fire. The Dutch engineers on the dyke worked hard to create holes through which the water could flow, while the French troops offered protection. When the enemy approached, they were forced back by fire from the galleys and the troops on the dyke. The galleys were forced to stop firing their cannons when the French soldiers ferociously rushed into close combat with the enemy. La Garde excused his fighters' actions, stating that it was beneficial to boost the morale.²¹ At the same time, it also indicates the commanders did not have tight control over the units.

After the troops managed to dig through, they discovered that behind this dyke there was another one, called *Groeneweg* (green road). A farmer that they captured told them that behind this dyke there was a third dyke called *Voorweg*, which they needed to overcome as well. The fighters had not expected this chain of obstacles.²²

The *Groeneweg* was taken with little resistance, as Valdez was fortifying the *Voorweg*. As the *geuzen* lacked the appropriate weapons, the relief fleet halted for a couple of days until heavier weapons arrived. Further problems were caused by the shallow depth of the water, which hampered the galleys' movements. They needed to stay in the former ditches, which were also becoming shallower.²³

They attempted an ineffective attack against the *Voorweg*, which damaged several ships, as the cannons were unsuited for the boats. The rocking ships made proper aiming on the watery surface difficult, while other boats were sunk or destroyed by the heavy cannons on their decks. The situation was made worse by how ill-prepared the troops and the boats were for the journey. Shortly before the retreat was sounded, a small landing party of French troops went ashore. The captains Durant and Catteville arrived with 30 of their shooters and took cover behind peat stacks. When the rest of their forces retreated, they made for the boat, but it turned over before

¹⁹ Anton van der Lem, "Dutch Revolt: Noyelles, George de Montigny, heer van," Universiteit Leiden, accessed 7 May 2020.

²⁰ Fleming and Walloon are members of the two predominant cultural and linguistic groups in Belgium. The Flemings account for about one-half of the population, speak Dutch, and live mainly in the north and west. The Walloons account for about one-third of the population, speak dialects of French, and live primarily in the south and east. Fruin, *Het beleg en ontzet der stad Leiden in 1574*, 104-5.

²¹ Fruin, *Het beleg en ontzet der stad Leiden in 1574*, 108.

²² Fruin, *Het beleg en ontzet der stad Leiden in 1574*, 109.

²³ Translated literally, *voorweg* means "in front of road," or a road that is in front of something. However, it is not clear as to what it is in front of or from which position it is in front of something. Fruin, *Het beleg en ontzet der stad Leiden in 1574*, 111-12.

they could make an escape. The soldiers, including Catteville and Durant's lieutenant Guilleresse, drowned or were killed in the ensuing struggle.²⁴

On 18 September 1574, a rainstorm raged across the Netherlands. As the rains continued through the next few days, a few locals helped the fleet of Boisot make its way toward Leiden again, although with a detour to move around the Spanish strongpoints. The Spanish troops, unnerved by the rising water in their way, retreated or were overcome in combat.²⁵ However, as the storm abated, the relief fleet was left grounded again.

In Leiden, the people were aware of the relief effort being made, but there was limited communication with the outside world. Eventually, messengers smuggled a flight of doves out of the city that they would use to fly information back into Leiden.²⁶ The besieged knew help was on the way. They just needed to hold out a little longer.

The fleet was in the vicinity of Leiden, but were incapable of reaching the city walls. A dyke, the *Kerkweg* (church road), prevented the sailors from closing the gap. Finally, with the right wind and tide, water was high enough and Boisot's relief fleet managed to sail up to the dyke and drive out the sentries. Soldiers quickly dug a hole in the dyke to let the water through. From the top of the dyke, on both sides, they dropped caltrops while the boats provided flanking fire to prevent the Spanish from returning to take possession of the area.²⁷ It was not long before the hole was large enough to allow boats through, and the fleet continued toward Leiden. However, their difficulties were not yet over as the ships were often grounded on the bottom. The *geuzen* would then get into the water and push with their shoulders or arms until the ships shifted into motion again, because they did not want to wait until the water was high enough. Combat was fierce and "many [a] Spaniard died in the waves or was killed by the men of Boisot with harpoon or rowing oar."²⁸

However, the *geuzen* had yet to reach Leiden, as there were still besiegers to overcome around the city. The Spanish had dug themselves in well, to the tremendous disappointment of the local population and the relief fleet. One of those positions was the defense work *Lammen*, also known as *Lammenschans*. However, during the night of 2–3 October, the Spanish commander Borja received orders from Valdez to abandon his position and retreat toward Leiderdorp. The defenders were in an unfavorable position, because the drowned land provided a slippery surface and this had resulted in casualties as soldiers drowned in ditches and canals. At the same time,

²⁴ Fruin, *Het beleg en ontzet der stad Leiden in 1574*, 113–14.

²⁵ Fruin, *Het beleg en ontzet der stad Leiden in 1574*, 117–18.

²⁶ Judith Pollman, *Herdenken, herinneren, vergeten: Het beleg en ontzet van Leiden in de Gouden Eeuw* (Leiden, Netherlands: Primavera, 2008), 9.

²⁷ The term *caltrop* refers to a device with four metal points arranged so that when any three are on the ground the fourth projects up to deter forward movement.

²⁸ Bronsveld, *Leiden in 1574*, 10–11; and Fruin, *Het beleg en ontzet der stad Leiden in 1574*, 137–38.

the Dutch held an impressive advantage as they advanced in their ships.²⁹ The withdrawal was only discovered the next day when Gijsbert Cornelisz Schaeck found an untended kettle of stew in the *Lammenschans*. He carried the food back to the hungry city population.³⁰ Another young boy, 13-year old Cornelis Joppensz, walked to the geuzen to tell them that the Spanish had abandoned their positions. They gave him six guilders for his help.³¹

VICTORY?

Although the city was liberated, the war known as the *Nederlandse Opstand* (Dutch Revolt) would continue for many more years. Mutiny caused Spanish troops to further disintegrate. While the rebels were superior on the water, the same could not be said on land. A major problem for Philip II were the financial constraints of warfare. His army was prone to mutiny if payment was delayed, as it often was. However, the liberation of Leiden certainly boosted the morale of the rebels. The slogan “*Leiden ontzet, Holland gered*” (Leiden liberated, Holland saved), sums up how the people felt about it.³²

While the plan was presented as a stroke of genius, it was more a combination of luck and blunders that resulted in victory. The planners could not know if the water would flood far enough. New battles for previously unanticipated obstacles would also have to be overcome. A detour, high tide, and a storm were necessary to carry the geuzen and their ships to the walls of Leiden.³³

LOST TERRITORY

The decision to flood the land around Leiden meant that the farmland was unusable for several years afterward because it was still flooded or the fields had been trampled. The brackish water, which was less salty than seawater, still caused damage to the soil for years following the conflict, as well. The houses of local farmers had also been damaged, either by the water or during the fighting.

The historian S. Groenveld identified several other factors in long-term damage, including, but not limited to, soldiers from both sides demolishing empty houses and selling their parts for profit. Although the price for these materials was low, they had been acquired for free and thus any price still offered a significant return.³⁴ Both sides razed the countryside to deny the enemy either a strategic advantage or a symbolic one. Driven by their hatred for the Catholic Church, the geuzen destroyed churches and cloisters.³⁵

²⁹ Fruin, *Het beleg en ontzet der stad Leiden in 1574*, 142–43.

³⁰ Pollman, “Een blij-eindend treurspel,” 129–30.

³¹ Pollman, “Een blij-eindend treurspel,” 135.

³² “Dutch Revolt: Leiden ontzet, Holland gered,” Universiteit Leiden, accessed 5 December 2019.

³³ Pollman, “Een blij-eindend treurspel,” 124.

³⁴ Groenveld, *Facetten van de Tachtigjarige Oorlog*, 116.

³⁵ Groenveld, *Facetten van de Tachtigjarige Oorlog*, 118.

It took six years before parts of South Holland were ready for limited use. The waterways were clogged with ships sunk to deny the enemy space of maneuver.³⁶ Income also suffered, because the farmers could not work the land and thus could not pay taxes to the landowners. The result was that the landowners missed out on their income as well.³⁷ The land immediately surrounding Leiden still was not usable six years after the conflict.³⁸ Discussing the destructive tactics of the Dutch, de Requesens wrote to his king:

*To tell the truth, I must say that the people from this country, although they themselves are the instigators of all the evil they have to endure, so many damages have they suffered and still suffer from the military operations and the interruptions of trade, that one could wonder about their patience. I believe not even the most peaceful and loyal regions in the world after so much misery during eight years would still be so patient.*³⁹

Approximately 6,000 of the city's population of 18,000 died.⁴⁰ Many died due to poor hygiene caused by the sheer number of people within the walls, where sanitation was poor. Although the hunger was described as a weapon, there was still horsemeat in the city on 3 October. The hunger could also be seen as a uniting factor. While some might have preferred surrender or would be indifferent to whoever controlled the city, they had all collectively suffered famine and thus could all agree on that aspect of the siege.⁴¹ The contentious religious discussions that had previously divided the citizens and their religious minorities were forgotten.⁴²

As part of the heroic defense against the Spanish troops, the city of Leiden was gifted a university by Willem van Oranje, which opened in 1575, and in the original founding documents, Philip II of Spain was mentioned as he was still, by law, the count of Holland.⁴³ The violence in the region remained, however. Willem van Oranje was assassinated in 1584. Louis Boisot was granted a golden necklace in celebration of his efforts, though he would later drown during combat near Zierikzee. The land had been flooded, but the keel of Boisot's ship got stuck on the bottom and was fired on by the enemy. Many people jumped ship to swim toward land, but Boisot was not among the survivors.

³⁶ Groenveld, *Facetten van de Tachtigjarige Oorlog*, 125.

³⁷ Groenveld, *Facetten van de Tachtigjarige Oorlog*, 127.

³⁸ Groenveld, *Facetten van de Tachtigjarige Oorlog*, 133.

³⁹ Edward de Maesschalck, *Oranje tegen Spanje: eenheid en scheiding van de Nederlanden onder de Habsburgers, 1500–1648* (Zwolle, Netherlands: Davidsfonds Uitgeverij, 2015), 159.

⁴⁰ Anton van der Lem, *De Opstand in de Nederlanden 1568–1648: De Tachtigjarige oorlog in woord en beeld* (Nijmegen, Netherlands: Uitgeverij Vantilt, 2014), 98.

⁴¹ Pollman, "Een blij-eindend treurspel," 128.

⁴² Robert Tiegs, "Hidden beneath the Waves: Commemorating and Forgetting the Military Inundations during the Siege of Leiden," *Canadian Journal of Netherlandic Studies* 35, no. 2 (2014): 14.

⁴³ Willem Otterspeer, *Groepsportret met Dame: Het bolwerk van de vrijheid. De Leidse universiteit, 1575–1672* (Amsterdam, Netherlands: Bakker, 2000), 63.

In 1581, the Dutch Republic signed the *Plakkaat van Verlatinghe* (Act of Abjuration), a declaration of independence. This act stated that the Dutch provinces would be separated from Philip II's rule. It was not until 1648, when the Treaty of Münster (or the Peace of Westphalia) was signed, that the Netherlands was formally recognized by the other ruling European powers.

INUNDATION TACTICS

The relief of Leiden was not the only time that the land was flooded to drive out enemy troops during the Eighty Years War. During the 1573 siege of Alkmaar, the dykes were also pierced, and the area surrounding the city was flooded, forcing the Spanish commander Don Fadrique Álvarez de Toledo to retreat. Here, the dykes were only pierced to force the enemy to retreat; but in the case of Leiden, the tactic was pushed even further. Instead of just forcing the enemy to retreat, the army sailed with ships over these flooded lands. In the case of Leiden, the water was initially not deep enough and wind and tide proved to be decisive for victory, not just the breaching of the water itself. This tactic was also unpopular with the inhabitants of the flooded land. They were forced to flee or seek refuge elsewhere.

The system of flooding land reversed the “scorched earth” method that remained in Dutch consciousness, which resulted in the *Waterlinie* (waterline), a series of defense works intended to protect the Dutch provinces in the west against attackers from the south and east. Special attention was paid so that the water was too deep to walk in but not deep enough to sail through, as the liberation of Leiden has shown was a critical characteristic of the tactic.

However, with the passing of time, the *Waterlinie* has become obsolete. Due to the introduction of modern airplanes, which would fly above it, personnel and materiel can be dispersed in the vicinity of the target. In May 1940, the Germans attacked from the east and their airplanes flew over the inundated territories to land or drop parachutists in a failed attempt to capture the Dutch queen. To this day, the liberation of Leiden is celebrated and the siege of Leiden is one of the most famous in Dutch history. Today, the citizens of Leiden celebrate the end of the siege on 3 October every year, when the local population comes together for festivities and people eat herring, white bread, and *hutspot*, which is a stew of potato, carrot, onions, and sometimes bacon.⁴⁴

⁴⁴ David S. Moyer, “Leiden *Hutspot*: The First Food after the Siege,” in *The Anthropologist's Cookbook*, ed. Jessica Kuper (London: Routledge, 2009), 44.

CHAPTER THREE

Amphibious Genesis

Thomas More Molyneux and the Birth of Amphibious Doctrine

Andrew Young

Historians have long recognized the Seven Years War (1756–63) as marking evolutionary leaps forward in operational art. Frederick the Great’s campaigns influenced commanders of the Napoleonic era and beyond; *Auftragstaktik* (command and control) and *bewegungskrieg* (maneuver warfare) claim Frederickan heritage.¹ At sea, the British Royal Navy’s commitment to decisive action laid foundations for consequent generations; Admiral Horatio Nelson knew he stood on the legacy of his forebears. Early historians and emergent strategists hailed British preeminence as one of almost divine right; the predestination of “Rule Britannia” or the truest expression of a discrete “British Way of War.” Fallacy exists in each of these interpretations. Julian S. Corbett, apogee of maritime strategic thought, relegated his conclusions on the emergence of an amphibious, or expeditionary, doctrine to one of supporting a general *naval* objective of decisive engagement.² What sets apart the Seven Years War from all prior Anglo-French experience is not in the evolution of its transatlantic, maritime conduct, but in the revolutionary methods and development of a distinct military theory: amphibious operations.³

¹ Hew Strachan, *European Armies and the Conduct of War* (London: Routledge, 1988), 19–58.

² Julian Stafford Corbett, *England in the Seven Years War*, vol. 2 (London: Longmans, Green, 1907), 374.

³ The false dichotomy of warfare as either *art* or *science* is resolved through reference to “strategic theory.” Beatrice Heuser, “Theory and Practice, Art and Science in Warfare: An Etymological Note,” in *War, Strategy and History: Essays in Honour of Professor Robert O’Neill*, ed. Daniel Marston and Tamara Leahy (Acton, Australia: Australian National University Press, 2016), 179–96.

Sitting central to this doctrinal leap is Thomas More Molyneux's 1759-published magnum opus: *Conjunct Expeditions*. Its opening gambit is much cited: "Happy for that People who are Sovereigns enough of the Sea to put [Littoral War] in Execution. For it comes like Thunder and Lightning to some unprepared Part of the World."⁴ An Oxford-educated, half-pay guards officer and sitting parliamentarian, Molyneux's tome was a unique addition to professional military literature. Quebec, Canada, and Havana, Cuba, have passed into lore, recognized for their import as decisive strategic blows conducted via this art.⁵ However, the doctrinal journey to these successes has been little studied; histories and analysis tend either to the politico-military grand-strategic or the tactical actions of army or navy as discrete entities.

Molyneux can rightly claim paternity of amphibious doctrine. While singular instances of tactical flag signals and landing plans predate *Conjunct Expeditions*, his was the first complete work codifying methods for employment by army and navy alike. Writing primarily for a military rather than naval audience, he sought to "reduce (if possible) this Amphibious kind of Warfare to a safe and regular system, to leave as little as we can to Fortune and her Caprices."⁶ He was an instinctive doctrinal thinker, understanding that "every new expedition will in all probability produce some new improvement" to keep pace with technological evolution, and that while theory informs practice, its execution requires good judgment.⁷ Though his phrasing is undoubtedly a product of the era, the sentiment is timeless and recognizable to modern practitioners and commentators. Moreover, Molyneux rightly placed doctrine as subservient to the objectives and aims of the nation; its utility was entirely dependent on serving the national interest. He variously acknowledged national geography, resource availability, political and public will, individual character, and agency in impacting the success or failure of such operations. Were it not that his work predated *On War*, Molyneux might be termed Clausewitzian. It is this understanding of the synergy between political ends and military means, and his identification of this mismatch in British strategy between 1756 and 1758, that elevates his work.

NEW STRATEGY, NEW DOCTRINE

Barry R. Posen demonstrated the importance of synergy between strategic intent and doctrinal capability.⁸ In sum, disconnect between the two, or a failure to adapt each to the evolving environment and challenges faced, means defeat. In the Seven Years War, we see exemplars of these principles: Britain adapted its war aims and methods; France, for whatever reason, did not. *Conjunct Expeditions* can be said to mark the juncture in the British approach. We should not discount human agency or situation-

⁴ Thomas M. Molyneux, *Conjunct Expeditions*, pt. 1 (London: R and J Dodsley, 1759), 3-4.

⁵ Corbett, *England in the Seven Years War*, 282.

⁶ Molyneux, *Conjunct Expeditions*, 1.

⁷ Molyneux, *Conjunct Expeditions*, 38, 199-202.

⁸ Barry R. Posen, *The Sources of Military Doctrine: France, Britain, and Germany Between the World Wars* (Ithaca, NY: Cornell University Press, 1986), 14-15.

al fortune in the equation. As Colin Gray states, neither *politik*, strategy, nor tactics occur in a vacuum; practitioner and situational impacts must also be assessed.⁹

The impetus for change derived from the war aims of the belligerents. In the 1750s, Anglo-French rivalry centered not in Europe but rather the Americas and India; colonial hostilities predated the 1756 Prussian-Austro-Russian war by two years. In Britain, following the 1748 Treaty of Aix-la-Chapelle, the Duke of Cumberland's faction steadily rose in opposition to Robert Walpole, Henry Pelham and their political *protégé*, Thomas Pelham, Duke of Newcastle.¹⁰ Simplistic arguments state the dichotomy between Continental (Newcastle) and Colonial (Cumberland) policies; the truth was more nuanced. However, it is fair to say Newcastle believed in the notion of balancing French power through Continental engagement, clinging to dreams of a Duke of Marlborough-esque Grand Alliance. Cumberland's William Pitt-championed faction were more sanguine; European losses, including the defeat and subjugation of any allies, could be balanced by French colonial possessions. Besides, the *raison d'être* for a Grand Alliance was to counter actual, rather than perceived, French hegemony in Germany.¹¹ Pitt aspired to conquer America "by keeping the French occupied in Germany." He advocated reducing the political and strategic importance of Hanover; "Britain's first duty was 'the succour and preservation of America.'"¹² King George II of Great Britain resisted this proposed abandonment of Hanover, forcing Pitt to temper his global ambitions.

Previous experience suggested that the Austrian Netherlands or Dutch provinces would be the foci of hostilities; anti-French Anglo-Austrian and Anglo-Dutch alliances almost guaranteed this. The 1756 Diplomatic Revolution, combined with Dutch neutrality, altered this state of affairs.¹³ Britain was suddenly allied to Frederick II's Prussia, at best antagonistic to Marie-Theresa's Austria, who quickly aligned with Louis XV. This negated Prussian designs on Hanover, but left the electorate exposed to French assault; the Austrian barrier was no longer in effect, and the Dutch had

⁹ Colin S. Gray, *Strategy and History: Essays on Theory and Practice* (London: Routledge, 2006).

¹⁰ Prince William Augustus, Duke of Cumberland, was the favorite, third, and youngest son of George II. His most notable achievement was the destruction of Jacobite forces at the Battle of Culloden in 1746 and subsequent "pacification" of the Highlands, earning him the sobriquet "Butcher." He was an ardent opponent of the Whigs, sought to reform the army in his own image, and proposed using massive military force to secure British hegemony in North America. Thad W. Riker, "The Politics Behind Braddock's Expedition," *American Historical Review* 13, no. 4 (1908): 742–52, <https://doi.org/10.1086/ahr/13.4.742>.

¹¹ Richard Pares, "American versus Continental Warfare, 1739–63," *English Historical Review* 51, no. 203 (1936): 429–65, <https://doi.org/10.1093/ehr/LI.CCIII.429>.

¹² George II's full title was *King of Great Britain, France and Ireland, Defender of the faith, Duke of Brunswick-Lüneburg, Archtreasurer and Prince-Elector of the Holy Roman Empire*. The duchy of Brunswick-Lüneburg referred to the Hanoverian electorate where George II was born and from whence George I had been summoned to succeed Queen Anne in 1714. Rupert Furneaux, *The Seven Years War* (London: Book Club Associates, 1973) 41.

¹³ Alice Claire Carter, "The Dutch as Neutrals in the Seven Years' War," *International & Comparative Law Quarterly* 12, no. 3 (1963): 818–34, <https://doi.org/10.1093/iclqaj/12.3.818>.

proved themselves unable to meet their treaty obligations.¹⁴ This change in fortunes favored the blue-water, colonial strategists; it was highly unlikely Britain would be able to protect Hanover from French military might. Best, then, to focus on snapping up French colonies with which to ransom back Hanover at war's end.

Britain countered these disadvantages by developing what B. H. Liddell-Hart referred to as the "British Way in Warfare."¹⁵ First, the continental and blue-water strategies worked in tandem; "British grand strategy under Pitt the Elder is thus best conceptualised as amphibious, rather than maritime."¹⁶ An army of observation, mostly comprising Germanic-state mercenaries and allies, fought a largely defensive war on Hanover's southwestern approaches while the Royal Navy conducted a blockade of France's Atlantic and English Channel coastlines. This blockade slowly strangled French trade, while English specie paid for a ready-made army—a relatively resource-light investment. Second, those forces created from continental war were then deployed to colonial operations, targeting relatively significant mass against isolated French garrisons.

This grand strategy assumed two truths. One, that the Royal Navy could maintain command of the sea, depleting French naval forces, and thereby negating the threat of invasion. Further, the impact of blockade would essentially deprive France of its trading lifeblood, bleeding its coffers dry. Two, that the French would focus their military efforts on subduing Hanover. This would require them to operate at range from their own magazines, and to pursue an antagonistic, offensive strategy, consequently strengthening Francophobe feeling amongst Protestant Germans.

To do so, however, would require a new doctrine, one that had yet to prove itself. The disastrous 1741 Cartagena, Colombia, expedition demonstrated the difficulties of command and control and operating in tropical conditions. Moreover, there was always the question of French invasion. Diverting ships and troops to far-flung corners was risky, especially given the previously low success rate.¹⁷ Britain's capture of Porto Bello, Panama, in 1739 demonstrated naval efficiency in squadron-size raiding against unprepared opposition. The siege of Louisbourg, Nova Scotia, in 1745 proved the will and initiative of Colonial officials to undertake large-scale expeditions with minimal Crown support. However, British Admiral Edward Vernon's failure at Cartagena and the 1746 raid on Lorient on the southern coast of Brittany made clear that cooper-

¹⁴ Tara Helfman, "Neutrality, the Law of Nations, and the Natural Law Tradition: A Study of the Seven Years' War," *Yale Journal of International Law* 30 (2005): 549; and Pares, "American versus Continental Warfare, 1739-63," 444.

¹⁵ Basil Liddell Hart, *The British Way in Warfare* (London: Faber & Faber, 1932).

¹⁶ D. J. B. Trim and Mark Charles Fissel, "Amphibious Warfare, 1000-1700: Concepts and Contexts," in *Amphibious Warfare, 1000-1700: Commerce, State Formation and European Expansion* (Leiden, Netherlands: Brill, 2006).

¹⁷ Molyneux estimated that, since the Elizabethan state, Britain had embarked on 68 conjunct operations, with only 30 being successful. Molyneux, *Conjunct Expeditions*, 5-7.

ation between army and navy, and either component's discrete competence, could not be relied on. Although separate army manuals and naval instructions existed for training and education, no such combined or joint texts covering amphibious operations existed.¹⁸ British doctrine should have identified and been informed by these experiences, yet, because of the European-centric focus of Hanoverian administrations, "combined operations remain[ed] what that of Rochefort [1757] declared itself more and more to be: merely an army carried by a fleet."¹⁹

Molyneux cites Rochefort as his muse: "The frequent ill-success of our Conjunct Armaments was owing to want of System and a general Insufficiency in this kind of War. A very little reflection upon the Return of the Rochefort Armament, convinced us thoroughly of this."²⁰ What he therefore sought to achieve was a means with which to ensure future success. Molyneux had a historian's vision for writing doctrine: "The best use that can be made of history is to correct in our times the errors committed in those of our ancestors."²¹ Then, as now, technical manuals must always be supported by contextual lessons.

DOCTRINAL GENESIS

The complexity in generating doctrine cannot be understated. While it comes under the conceptual component of fighting power, it must be furthered in cooperative synergy with both the physical and moral components. Disconnect between any of these elements will inevitably lead to null outcomes at best, negative at worst. Therefore, it is not enough merely to cogitate on the *ways* to achieve operational success; one must be innovative in the *means*, and desirous of the *ends*.²² Richard Harding describes advances in the conceptual component in terms of professional systems, and physical as technical factors, citing developments in these alongside Molyneux.²³ More difficult to quantify are the moral elements; that "fighting spirit" derived from "leadership, management and motivation."²⁴ However, the motivational impact on British naval

¹⁸ Richard Harding, "The Control of Landing Operations," in *The Sea in History: The Early Modern World*, ed. Christian Buchet and Gérard Le Bouëdec (Suffolk, UK: Boydell and Brewer, 2017), 891–904, <https://doi.org/10.1017/9781782049098.081>.

¹⁹ Corbett, *England in the Seven Years War*, 219.

²⁰ Molyneux, *Conjunct Expeditions*, 210.

²¹ Molyneux, *Conjunct Expeditions*, 39.

²² As stated in *UK Defence Doctrine*, Joint Doctrine Publication 0-01, 5th ed. (Wiltshire, UK: Development, Concepts and Doctrine Centre, Ministry of Defence Shrivenham, 2014), 25–40.

²³ Richard Harding, "Sailors and Gentlemen of Parade: Some Professional and Technical Problems Concerning the Conduct of Combined Operations in the Eighteenth Century," *Historical Journal* 32, no. 1 (1989): 35–55, <https://doi.org/10.1017/S0018246X00015296>.

²⁴ Geoffrey Sloan, "Military Doctrine, Command Philosophy and the Generation of Fighting Power: Genesis and Theory," *International Affairs* 88, no. 2 (2012): 243–63, <https://doi.org/10.1111/j.1468-2346.2012.01069.x>.

officers of Admiral John Byng's execution for "failing to do his utmost" at the outbreak of hostilities cannot be understated.²⁵

Molyneux is scathing in his analysis of the 1741 Cartagena debacle: "Whoever then considers the many untoward Accidents that seemed to concur during the several Operations of this Conjoint Armament, must think nothing but almost a Miracle could have brought it to any other Conclusion than what it had." He goes on to list that, aside from contending with "the Enemy and improper season," lack of "Unanimity, Method, System . . . [and] more prudent conduct to be observed in general by the Fleet and Army" all combined to disastrous effect. Moreover, owing to the component commanders' "contract[ing] a hearty contempt for each other" and acting more to further the "disgrace of his rival" than the success of the operation, Molyneux argues that there was no prior objective experience that could be drawn on to prepare and execute amphibious operations in the 1750s.²⁶ Thus, he viewed his work as an attempt to remedy this.

It was also an attempt to justify their expense and efficacy. Molyneux belonged to the Pitt party; he believed in the import of trade as an object of pursuit.²⁷ But in surveying the many reasons for former "miscarriages," he identifies some of the founding tenets of maneuver warfare: mass, surprise, and momentum are repeated throughout part 2. "The Conjoint Armament" he writes "goes against the enemy like an arrow from a bow. It gives no warning where it is to come, and leaves no trace where it is passed. It must wound where it hits, if rightly pointed at some vulnerable part." The contrast with the opponent "labouring under the weight of an unwieldy shield" is unmistakable.²⁸

In the cases he surveyed, Molyneux asserted that failure rested on operational ill-preparedness and tactical misconduct; these were predominantly questions of logistics and generalship. He also bounded his understanding of amphibious operations within three headings: the landing, operations ashore, and the reembarkation. The size or object of the expedition was immaterial; any operation was dependent on these three foundation stones. Mismanagement of any one would be disastrous to the whole. Though he understood clearly the *sine qua non* requirement for command of the sea, he determined that its purview was beyond the execution of amphibious operations. Instead, Molyneux used British naval superiority, if not supremacy, as the assumed starting point for all operational planning. This "greater [naval] effectiveness" was as a result of George Anson's (as first lord of the Admiralty) "gradual" and

²⁵ Leading Voltaire (a.k.a. François-Marie Arouet) to declare: "In this country, it is good to kill an admiral from time to time, to encourage the others" (*Dans ce pays-ci, il est bon de tuer de temps en temps un amiral pour encourager les autres*). Voltaire, *Candide, ou l'optimiste* (Geneva, Switzerland: Cramer, 1759).

²⁶ Molyneux, *Conjoint Expeditions*, 175, 210–11.

²⁷ Molyneux, *Conjoint Expeditions*, 18.

²⁸ Molyneux, *Conjoint Expeditions*, 21.

“unexciting administrative” developments.²⁹ Without it, amphibiosity was a dream, as shown in numerous French attempts on the British Isles.

Molyneux argued cogently that amphibious success had been elusive owing to the following principal *military* defects. First, the lack of a coherent system, or doctrine, by which to train and educate practitioners. Second, the failure to delineate command and control between force components. Third, and particularly the case in the most ambitious expeditions, the failure to assign enough resources to achieve the stated aims. Fourth, those forces that did land lacked the artillery and cavalry required to assault heavily defended port cities or engage in all-arms battles; they were utterly dependent on naval gunfire and labor. Fifth, deficient intelligence, including navigational knowledge of the approaches to the target area and enemy defensive dispositions. Sixth, lack of sufficient means and equipment to conduct landing or reembarkation operations. Central to Molyneux’s argument was the idea that the majority of these ills could be “cured” by eradicating “bad management.”³⁰ Richard Harding agrees with many of these, but reduces his reasons to four: poor intelligence, enemy inland defenses, poor anchorages, and the possibility of enemy naval action. Unless each of these could be surmounted or negated, then any amphibious operation was precarious.³¹ The 1758 Battle of Saint-Cast debacle on the coast of France is demonstrative (figure 7). Owing to bad weather, Commodore Richard Howe was forced to shift his anchorage from the Saint-Lunaire *debarquement*; consequently, the withdrawing infantry were caught unprepared and unsupported by a concentrated counterattack.³²

For Molyneux, the abortive Rochefort descent called for professional and technical evolution. First, accurate intelligence is critical; Rochefort’s weakness was only ascertained after Edward Hawke and John Mordaunt’s withdrawal.³³ However, as enemy dispositions could alter drastically during the voyage, dedicated reconnaissance forces would need to be landed to gather intelligence on the beaches prior to disembarking the main force.³⁴ This was the job of “irregulars”; the newly raised light infantry or Ranger companies. The charts of the Basque Roads had also been inadequate, resulting in unnecessary delay: extensive surveying preceded the approach to Quebec, Canada; Belle-Île, northwest France; and Havana, Cuba (figure 8).³⁵ Second, early planning and preparation was necessary given the transit time to target area and local weather and climatic conditions: the Rochefort expedition was delayed by poor

²⁹ Jeremy Black, *Warfare in the Eighteenth Century* (London: Cassell, 2002), 149; and N. A. M. Rodger, *The Wooden World: An Anatomy of the Georgian Navy* (London: Fontana Press, 1988), 30.

³⁰ Molyneux, *Conjunct Expeditions*, 11.

³¹ Harding, “Sailors and Gentlemen of Parade,” 52.

³² Harding, “Sailors and Gentlemen of Parade,” 46.

³³ Corbett, *England in the Seven Years War*, 214–15.

³⁴ David Syrett, “The Methodology of British Amphibious Operations during the Seven Years and American Wars,” *Mariner’s Mirror* 58, no. 3 (1972): 269–80, <https://doi.org/10.1080/00253359.1972.10658666>.

³⁵ Corbett, *England in the Seven Years War*, 211.

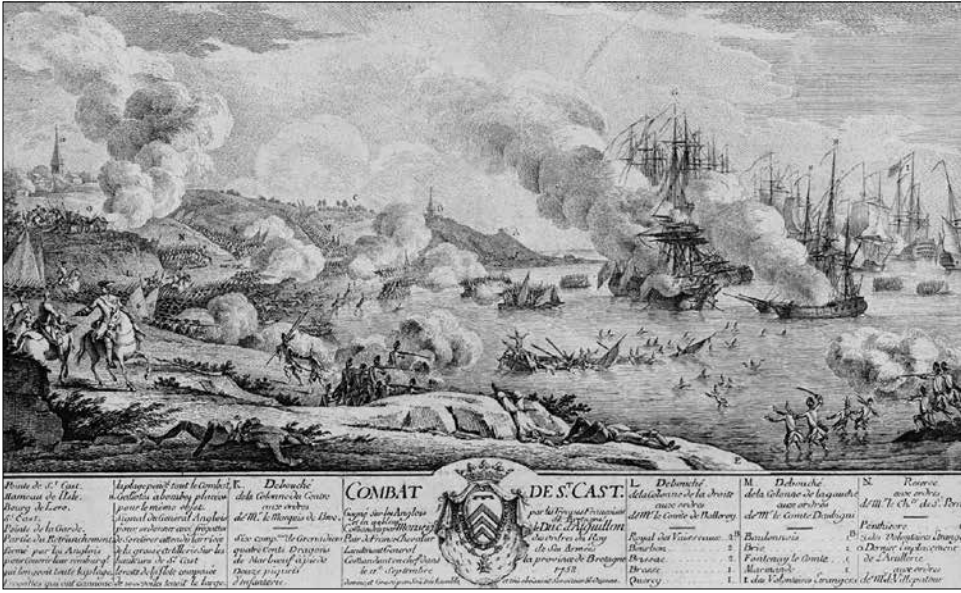


FIGURE 7

The Battle of Saint-Cast, 1758, during the Seven Years War. Lt Thomas More Molyneux, 3d Foot Guards, witnessed firsthand the chaos of withdrawal under fire. Saint-Cast proved the necessity of proper landing and evacuation drills and the futility and dangers of descents upon the French mainland. Afterward, Pitt would focus his amphibious war on insular targets.

Nicolas Ozanne, *Bibliothèque Nationale de France*

weather, and operations in the West Indies were often decimated by disease. Third, special flat-bottomed landing craft were developed for future operations that were capable of carrying large numbers of troops and materiel and were designed specifically for open-beach disembarkation methods.³⁶ Such vessels enabled uniform loading and disembarkation, delivering units formed and ready to the beachhead, reducing confusion and maintaining tactical tempo. An experienced senior naval officer would be appointed to command the flotilla of assault ships, often separate from the covering squadron.³⁷ Last, but most important, the relevant commanders needed to be aggressive and practiced in the art of combined and inshore operations, with a clear chain of command established from the start.³⁸ Familiarity with each other's medium was also necessary: amphibious operations require a greater level of sophistication in communications and cooperation between all arms and Services, working together

³⁶ Steven Foster, *Hit the Beach: The Drama of Amphibious Warfare* (London: Cassell, 1998), 14.

³⁷ Syrett, "The Methodology of British Amphibious Operations during the Seven Years and American Wars," 272.

³⁸ Syrett, "The Methodology of British Amphibious Operations during the Seven Years and American Wars," 270-71.



FIGURE 8

Approach of British forces before Morro Castle, 1762. The siege and capture of Havana was a body blow to Spanish power in the Caribbean. While the abortive attempt on Cartagena in 1741 clearly demonstrated the dangers of campaigning during the rainy season, close cooperation between the British Army and Royal Navy ensured success. Here, the artist shows British troops moving from the siegeworks into the newly captured Morro Castle, while in the foreground a flotilla of troop-carrying boats moves toward the harbor entrance, all under the Navy's watchful eye.

The Capture of Havana, 1762: Storming of Morro Castle, 30 July, c. 1770-77, by Dominic Serres (1722-93), National Maritime Museum, Greenwich, London, BHC0412

“like the two lobes of one brain.”³⁹ Examples of this cooperation and understanding increased as the war progressed.

Key to Molyneux's doctrinal thesis is his discussion of the means and methods of landing and withdrawal and of how the fleet was to support the military mission ashore. Harding has struggled to demonstrate that the army often had the more difficult task; the Royal Navy facilitated action from a position of relative safety.⁴⁰ Turning his mind to the losses suffered at Saint-Cast, Molyneux's retrospective finding is judiciously prudent. A proper rearguard, prepared defensive positions, inshore frigate support, and the collection of all lift capacity to bring off the remaining troops in an orderly fashion may well have altered the course of events. In any case, he ends

³⁹ Corbett, *England in the Seven Years War*, 218-19.

⁴⁰ Harding, “Sailors and Gentlemen of Parade.”

with Frederick's exhortation, "We will do better another time"; wars are won by those who learn fastest.⁴¹

Conjunct Expeditions outlines tactics, techniques, and procedures (TTP). In chapter 3, the author discusses the organization of landing craft and methods for fighting from them. Chapters 4 and 5 provide the design, types, numbers, and lift capacity of varying landing craft (e.g., artillery, line infantry, or irregulars) and how they are to be used to affect a landing. Molyneux gives examples of naval gunfire support missions and how to conduct an assault landing by an all-arms infantry brigade of 3,000 troops. In chapter 6, the author describes conduct of military operations ashore, including the reduction of coastal and riverine defenses through combined land-sea action. He belabors the necessity of multipurpose troops and equipment to deal with such defenses: "In a Conjunct Expedition every thing is to be converted to as many Uses as possible. . . . The Soldier on some degree acts the part of a sailor as the latter does that of the former."⁴² Further, he details the use of cavalry mounts to assist artillery mobility and the import of momentum to achieve the object before enemy reinforcement and reaction. He regards the withdrawal as the most difficult of operations as it forces an army to "rush immediately to their ships, and be plunged . . . into . . . darkness and confusion."⁴³ In this ultimate chapter, Molyneux details how to deploy a brigade: how to prepare the embarkation area, the defensive dispositions ashore and afloat, and the methods of embarking under fire.

While only briefly discussing shipping, Molyneux alludes to this continual planning headache, particularly the lack of cavalry transport.⁴⁴ The latter's impact on continental operations was significant. Statesman Henry Dundas estimated that a single cavalry regiment required 20,000 tons of shipping; contrast his estimate for tonnage per infantry soldier at 1.25:1; an army of 10,000 infantry required a minimum 12,500 tons. The average ship burden was approximately 300 tons. Add attendant artillery train and the transport convoy became unwieldy. A single collier could transport 30 horses: enough to service two field pieces or a single troop of horse without remounts. Moreover, landing guns and horses on an open beach was a highly dangerous enterprise.⁴⁵ There were never enough of the right type of troopship, and none were in government employ; generic ships taken up from trade (STUFT) were the order of the day. This lack of purpose-built shipping only served to heighten tensions between army and navy at sea, and to confuse matters when it came to landing preparations.

Harding and others have been right to assert that the impact of these professional

⁴¹ Letter from Frederick after the Battle of Koln. Jean-Charles Laveaux, *The Life of Frederick the Second, the King of Prussia: To Which Are Added Observations, Authentic Documents, and a Variety of Anecdotes*, vol. 2 (London: J. Debrett, 1789), 410.

⁴² Molyneux, *Conjunct Expeditions*, 129–33.

⁴³ Molyneux, *Conjunct Expeditions*, 175.

⁴⁴ Molyneux, *Conjunct Expeditions*, 214–16.

⁴⁵ Piers Mackesy, "Problems of an Amphibious Power: Britain against France, 1793–1815," *Naval War College Review* 30, no. 4 (1978): 16–25.

and technical factors is questionable.⁴⁶ However, soon after Molyneux's publication, the large descents on the French mainland ceased; 1758 saw the last of the Pitt party's war-winning stratagem. Molyneux rightly identified the futility of landing an army of 16,000 on mainland France.⁴⁷ Harding recognized that landing operations could easily outflank defenses, but neglected to align this with the intended purpose—to capture and/or destroy well-defended French ports. A siege train would be required to capture objectives as escalades often rendered the assaulting force combat ineffective. Holding a port on enemy territory would require an even greater influx of supply from the sea; a precarious lifeline in the age of sail. Moreover, how would holding La Rochelle, Rochefort, Brest, or Saint-Malo further British policy aims? France would be able to mobilize resources to retake any of these sites far more swiftly than Britain could reinforce; the lesson of La Rochelle during Duke of Buckingham George Villiers's time indicated this; Molyneux cites it as one of the historic failures. A besieged force on French soil would divert ships and resources from other more profitable engagement. In short, descents on the French mainland could achieve little lasting advantage, were costly to mount, and risked utter destruction. It is no coincidence that Pitt's ministry refocused efforts away from these transient affairs to colonial conquests.

AGENTS OF VICTORY

As Posen emphasized, strategic success is as dependent on good planning and doctrinal flexibility as it is good fortune. In any organization, human agency is key. This lesson is paramount throughout the Seven Years War. Failures on the Monongahela River; Minorca Island; Rochefort, France; and Kloster-Zeven, Germany, showcased command fragility and doctrinal paucity (Braddock, Byng, Mordaunt-Hawke, and Cumberland, respectively). British success at Fort Beauséjour, New Brunswick; Louisbourg, Nova Scotia; Minden, Ontario; Quebec, Canada; Quiberon, France; and Martinique in the Caribbean (Lieutenant Colonel Robert Monckton, General Jeffrey Amherst and General James Wolfe, Sir William Waldegrave, Wolfe, Hawke, and Monckton, respectively) was as much due to audacious command as it was to doctrinal efficiency. For an amphibious strategy, operation, or battle to be successful, each component—land or naval—has to excel in its own element vis-à-vis its opponent. Strength in one medium alone cannot confer success. It is thanks to the lessons identified and learned by commanders that doctrine was defined and exercised successfully.

Here again, we see Molyneux's tenets in practice. Previous failures rested on the lack of knowledge, skill, and attitude of commanders. Field Marshal John Ligonier's and Admiral George Anson's influences put this to rights.⁴⁸ Their selection of commanders based on merit, understanding of the operational concept, and profession-

⁴⁶ Harding, "Sailors and Gentlemen of Parade," 35–55.

⁴⁷ Molyneux, *Conjunct Expeditions*, 11.

⁴⁸ Tom Pocock, *Battle for Empire: The Very First World War, 1756–1763* (London: Michael O'Mara Books, 1998), 91–94.

alism was responsible for the creation of a generation of officers who knew their business. Ligonier's influence is easily discernible. In 1757, when briefing his subordinates, he stated the necessity of "a safe and well secured Communication between the Camp and Sea . . . the whole depends on it."⁴⁹ As commander-in-chief, Ligonier hosted a dinner where Lord Augustus Howe, Jeffrey and William Amherst, William Keppel, Guy Carleton, and William Draper featured prominently, as they did throughout the coming war.⁵⁰ Many, such as Ligonier, were known to be sound administrators and innovators. Likewise, Admiral Charles Saunders, Admiral Augustus Keppel, Admiral George Pocock, and Admiral Edward Boscawen were all Anson's intimates, mentoring officers such as George Rodney and Richard Howe. Few had any real prominence prior to 1757; yet, under Anson and Ligonier's eye, they would prosper and lead the doctrinal transformation.⁵¹

Two military individuals bear this out: Monckton and Wolfe. Monckton served at Fort Beauséjour (commanding general, 1755); Quebec (brigadier, 1759); and Martinique (commanding general, 1762).⁵² He also prepared forces for George Keppel, earl of Albemarle's assault on Havana (1762). Wolfe's service drew on his personal experiences: Rochefort (quartermaster general, 1757); Louisbourg (brigadier, 1758); and ultimately at Quebec (commanding general, 1759). Both were serious military practitioners; James Wolfe had long been known for his innovative approach to infantry tactics.⁵³ He applied this keen mind to amphibious matters.

*An admiral should endeavour to run into an enemy's port immediately after he appears before it; that he should anchor the transport ships and frigates as close as can be to land; that he should reconnoitre and observe it as quick as possible, and lose no time on getting the troops on shore; that previous directions be given in respect of landing the troops, and a proper disposition made for the boats of all sorts, appointing leaders and fit persons for conducting the various divisions.*⁵⁴

These exhortations informed Molyneux's work. They also demonstrate Wolfe's intrinsic understanding of the strengths of littoral warfare and the maneuverist approach. His *Orders*, posthumously collated and presented to parliament in November

⁴⁹ Gen Sir John Ligonier, quoted in Foster, *Hit the Beach*, 15.

⁵⁰ Rex Whitworth, *Field Marshal Lord Ligonier: A Story of the British Army, 1702-1770* (Oxford, UK: Clarendon Press, 1958), 234-35.

⁵¹ Pocock, *Battle for Empire*, 92.

⁵² The ranks of brigadier and commodore were appointments given to colonels or naval captains in command of composite units grouped together for an operation. They were not formally adopted as substantive ranks until 1947.

⁵³ Robert Harvey, *The Mavericks: The Military Commanders Who Changed the Course of History* (London: Constable, 2008), 24-25.

⁵⁴ LtCol Wolfe, as quoted in Frank McLynn, 1759: *The Year Britain Became Master of the World* (London: Pimlico, 2005), 203.

1759, bears all these hallmarks.⁵⁵ For the landing operation at Anse-au-Foulon, Quebec, he personally directed the distribution of flat-bottomed boats; the landing force composition and disposition; signals to coordinate the craft and the navy's duty; use of artillery officers to direct naval gunfire; and the expected scheme of maneuver once ashore.⁵⁶ If Molyneux was the principal theorist, then Wolfe represented the arch practitioner of this new warfare.

Where Ligonier and Anson were deprived of their first pick for command, they were able to influence the staff composition. Take Albemarle's command at Havana: General George Eliott (brigadier, Saint-Malo and Cherbourg descents, 1758) was selected as second in command. Colonel Guy Carleton (Quebec, Belle-Île, 1761) made another appearance as quartermaster general. William Howe (Quebec, 1759) commanded the grenadiers. Colonels William Haviland (Martinique, 1762) and Andrew Rollo (Dominica, 1761) served as brigadiers under the less experienced John La Fausille and William Keppel.⁵⁷ Here was a staff of all the talents, fighters with experience to drive a campaign successfully to the finish. However, their presence evidently grated on the inexperienced Albemarle who complained to Amherst:

*Your officers are generals, with a thorough contempt for everybody who has not served under Mr Wolfe. . . . I dare not find fault yet; I am greatly afraid they will oblige me to tell them my mind when we are better acquainted.*⁵⁸

The plan called for an army of 14,000 experienced troops, 200 transports, and a covering squadron of 30 ships-of-the-line for inshore action and escort—a mammoth undertaking.⁵⁹ Yet, owing to the deteriorating season and the onset of illness and disease, Havana almost suffered the same fate as the Cartagena expedition.⁶⁰ That it did not is testament to the efficiency and efficacy of the component commanders.⁶¹ Just as the experience of commanders increased, so too did the units at their disposal. A brief glance through the annals demonstrates the repeated use of seasoned troops on amphibious operations (table 1).

It is important here to note that, by 1763, only one of the land units present at Havana had no amphibious operational experience (the 56th Regiment of Foot). The

⁵⁵ James Wolfe, *Instructions to Young Officers: Also His Orders for a Battalion and an Army Together with the Orders and Signals Used in Embarking and Debarking an Army, by Flat-bottom'd Boats, and a Placart to the Canadians; to which Are Prefixed, the Duty of an Adjutant, and Quarter-master* (London: House of Commons, 1759).

⁵⁶ Wolfe as quoted in McLynn, 1759, 98–105.

⁵⁷ Corbett, *England in the Seven Years War*, 250.

⁵⁸ Timothy Clayton, *Tars: The Men Who Made Britain Rule the Waves* (London: Hodder and Stoughton, 2008), 251.

⁵⁹ Andrew Lambert, *War at Sea in the Age of Sail, 1650–1850* (London, New York: Smithsonian Books, HarperCollins, 2005), 125.

⁶⁰ N. A. M. Rodger, *Command of the Ocean: A Naval History of Britain, 1649–1815* (New York: W. W. Norton, 2005), 286.

⁶¹ Corbett, *England in the Seven Years War*, 283.

Table 1. Regiments of Foot assigned to amphibious operations, 1755-63

1755		1757			1758		
Fort Beausejour	Rochefort (Aborted)	Louisbourg (Aborted)	1st Descent (Saint-Malo)	2d Descent (Cherbourg)	3rd Descent (Saint-Cast)	Louisbourg	
40th	3d 5th 8th 15th 20th 24th 25th 30th 50th 51st	1st 17th 22d 27th 28th 40th 42d 43d 44th 45th 46th 47th 48th 55th 2d battalion, 60th 4th battalion, 60th	1st Foot Guards 2d Foot Guards (Coldstream) 3d Foot Guards 5th 8th 20th 23d 24th 25th 30th 33d 36th 37th 72d	1st Foot Guards 2d Foot Guards (Coldstream) 3d Foot Guards 5th 24th 30th 33d 34th 36th 67th 68th 72d	1st Foot Guards 2d Foot Guards (Coldstream) 3d Foot Guards 5th 24th 30th 33d 34th 36th 67th 68th 72d	1st 15th 17th 22d 28th 35th 40th 45th 47th 48th 58th 2d battalion, 60th 3d battalion, 60th	

Compiled by the author

Table 1. Regiments of Foot assigned to amphibious operations, 1755–63 (continued)

1759		1761			1762	
Quebec	Guadaloupe	Belle-Ile	Dominica	Martinique	Havana	
15th	3rd	9th	4th	15th	1st	
28th	4th	19th	22d	17th	4th	
35th	61st	21st	77th	27th	9th	
43rd	63d	30th	94th	28th	15th	
47th	64th	34th		35th	17th	
48th	65th	36th		40th	22d	
58th		67th		1st battalion, 42d	27th	
2d battalion, 60th		69th		2d battalion, 42d	28th	
3d battalion, 60th		90th		43d	34th	
78th		97th		46th	35th	
Louisbourg Grenadiers (1 company each from 22d, 40th, 45th)		98th		60th	40th	
As Marines: 62d				69th	1st battalion, 42d	
69th				76th	2d battalion, 42nd	
				90th	43d	
				98th	48th	
					56th	
					3d battalion, 60th	
					65th	
					72d	
					77th	
					90th	

vast majority (16 units) had at least three recent operations to their credit. A similar story may be told among the naval squadrons. The size of the operation and its target are also of import: Louisbourg (1758), Quebec (1759), Belle-Île (1761), Martinique (1762), and Havana (1763) all demonstrate the principle of concentration of force and the isolation afforded by command of the sea; these were effectively insular targets. Inconclusive operations (Rochefort (1757), Martinique (1759), and the 1758 descents) were either poorly resourced to achieve the aim, indefinite in their intentions, or easily countered by defensive reinforcements.

LESSONS FOR PRACTITIONERS

The most important conclusions to be drawn from this case study must be for the benefit of practitioners. There is one *sine qua non* for all amphibious operations that is beyond the scope of this paper, but its import bears repeating—sea control, or at least local command of the sea, must be total. Without this, there is no secure base from which to launch, sustain, or recover operations ashore. The key strategic lesson of 1757–63 is that the Royal Navy was able to support littoral maneuver *only* because it felt confident in its own security; the French Navy was not an imminent, credible threat. Moreover, the symmetry in offensive and defensive firepower meant that, when operating onshore, the Royal Navy could comprehensively outmaneuver and outgun land batteries.⁶² With a plethora of relatively cheap, mobile, and numerous supersonic anti-access/area-denial (A2/AD) missiles, the advantage now lies with the defender.

Otherwise, four key principles arise when considering the birth of this operational art. First, in and of itself, Britain's newfound amphibious capability was not winning wars. It was merely a part or a larger whole within the national-strategic framework. In an age of pressured budgets, practitioners must understand that their utility is derived from the beneficiaries of their action; attaining or maintaining a capability not aligned to strategic intent is incoherent. In Britain's case, Pitt could afford to risk a higher debt burden because he expected the merchant class to benefit financially from the conflict. The strategic intent was to secure British trading interests throughout the New World; amphibious strikes at Martinique and Havana and the capitulation of Canada secured this fact. Descents on France did not. Second, and directly related, these operations were most effective when they properly targeted the *schwerpunkt*, or center of gravity, both physically and morally. The siege and capture of Havana at the outbreak of hostilities was a crushing blow to both these components of Spanish power in the Americas, swiftly bringing Bourbon Spain to terms. By comparison, Belle-Île's capture barely distracted France from operations in Germany, although it did cause much embarrassment in Versailles. Third, strategic strikes require sufficient mass. Today, given the cuts and the pressures facing militaries, could European force projection achieve operational dominance? The depletion of the United

⁶² Harding, "Sailors and Gentlemen of Parade," 47.

Kingdom's amphibious assault and support shipping and the reduction of the Royal Marines Lead Commando Group to a company-size force must give pause. Raids in force on the French coast achieved little. Their limited mass meant that they could not sustain themselves and, without a siege train, their ability to capture a strategic port was nonexistent. Last, even if all of the above needs are met, without both commanders and units schooled, practiced, and equipped for such operations, the tactical execution is likely to fail. In 1755, few if any officers or units had the requisite knowledge, skills, or attitudes to undertake amphibious operations. It is no coincidence that Havana's capture was undertaken by military officers and units with a wealth of operational experience.

What Molyneux brings to the study of amphibious operations is clarity of purpose and execution. He expanded on existing military doctrine, applying keen reasoning to deduce simple, effective methods to overcome failings in execution. He developed a series of TTPs; how many of these were used *in toto* is hard to quantify, as at no stage did he claim to have invented new methods. Instead, he took existing, or underdeveloped, means and determined new ways for their use in the context of their time, fitting them around the extant army manuals. It was an incremental step forward that created an entirely discrete way of warfare. Moreover, he aligned this doctrine with the state interest and national strategy. In all of this, he is worthy of note for modern thinkers and practitioners. His remarks are precursors to our understanding of maneuver warfare and emphasize that there is nothing new to this way of warfare, only in its execution. One can take any of the areas that he identified and apply these lessons to the modern battlespace to find resonance: intelligence and reconnaissance; mass and momentum; command, control, and communication; technology and equipment development; and tactical innovation and adaptation are all features of his work. And, importantly, in his historical analysis, Molyneux places greatest emphasis on the agency of those commanders who learned from prior experience. He ends with an excerpt from Plato's *Phædrus*:

*we ought to examine strictly into the truth of a matter, rather than suffer an erroneous impression to pervert our judgment.*⁶³

Molyneux sought truth, and laid it down for our judgment. It would be best not to forget his example.

⁶³ As quoted in *The Comedies of Terence: And the Fables of Phædrus*, trans. Henry Thomas Riley (London: Henry G. Bohn, 1853), 399.

CHAPTER FOUR

The Delaware River Campaign of 1777

An Examination of an Eighteenth-Century
Amphibious Operation

James R. McIntyre

Mention the 1777 British campaign during the American Revolution and most people, either American or British, will immediately think of British General John Burgoyne's failed march on Albany, New York, through the Hudson River Valley that culminated in the battle of Saratoga.¹ Some will, of course, think of the campaign in Pennsylvania that ended in the British capture of Philadelphia by Major General William Howe. For most among this latter group, the Philadelphia campaign ends with the Battle of Germantown on 4 October 1777. Few, if any, consider the fighting for control of the Delaware River that continued on through October into mid-November 1777. The lack of attention to these later engagements in and around the river stems from the fact that following Major General William Howe's capture of Philadelphia on 26 September 1777 and General George Washington's attempt to retake the city on 4 October, the fighting for control of the city is seen as a series of minor actions. When the fighting on the Delaware River with its numerous amphibious operations is highlighted, it becomes clear that the struggle for control of the river underscores naval theorist Sir Julian S. Corbett's third use

¹ The American War of Independence sometimes poses problems of terminology. To dispense with this obstacle at the outset, we will use *British* or *crown forces* for those troops used by the British crown. Likewise, we will use *Americans* for those serving in the Continental Army to signify the land and sea forces fighting for independence. *Loyalists* will be used for colonists who remained loyal to the British crown, whereas *patriots* will be used for those fighting or supporting the Continentals.

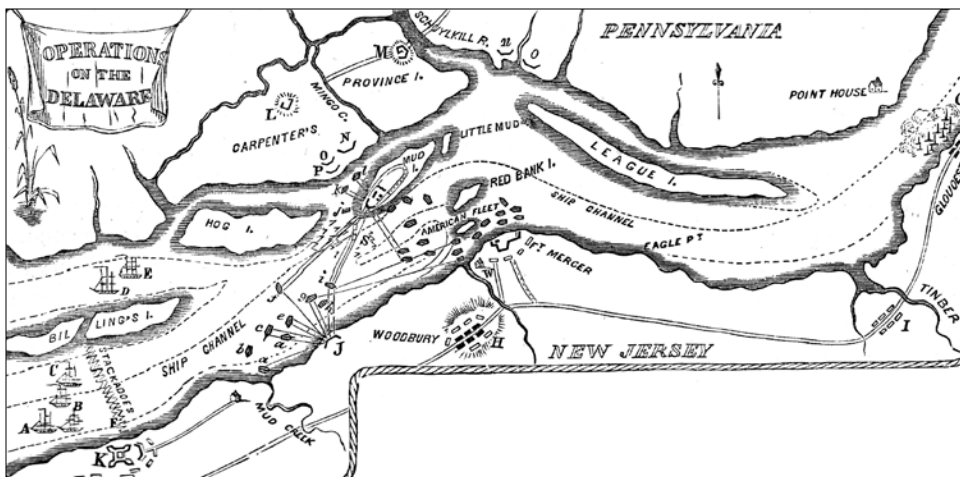


FIGURE 9

Map of operations on the Delaware River at Philadelphia, PA, October–November 1777.
 Benson J. Lossing, *The Pictorial Field-Book of the Revolution*, vol. 2 (New York: Harper Brothers, 1853), 298

for a battle fleet: “The control of passage and communication for our own overseas expeditions, and the control of their objective area for the active support of their operations.”² While all of the engagements in this riverine campaign are illustrative in their own right, the Hessian assault on Fort Mercer on 22 October 1777 is exemplary of both the techniques and challenges that affected eighteenth-century amphibious operations (figure 9).

To fully appreciate the assault on Fort Mercer, or Red Bank Battlefield, a brief description of the strategic situation as it stood in the autumn of 1777 is important. By the autumn of 1777, British forces landed at the Head of Elk (modern Elkton) in Maryland and moved northward on Philadelphia, General William Howe’s goal for the campaign. Howe and his brother, Admiral Sir Richard Howe, chose to march from this direction as he did not want to risk fighting his way through the Delaware River defenses. Royal Navy captain Andrew Snape Hammond of the HMS *Roebuck* (1774), a frigate on patrol in the Delaware Bay, provided the Howe brothers with a complete description of the American defensive network.³ General George Washington hoped to block their advance by making a stand at Brandywine Creek in southeastern Pennsylvania. There, on 11 September 1777, the Americans stood toe to toe against their British adversaries in a pitched battle until General Howe outflanked

² Julian S. Corbett, *Some Principles of Maritime Strategy* (Annapolis, MD: Naval Institute Press, 1988), 165.

³ Andrew Snape Hammond, “The Autobiography of Captain Sir Andrew Snape Hamond, 1738–1828” (master’s thesis, University of Virginia, 1947), 73–74.

Washington.⁴ Even then, the Continentals managed to extricate themselves in good order, thanks especially to the efforts of Major General Nathanael Greene who conducted a determined rear guard action.

Following the battle at Brandywine, both sides jockeyed for position. Finally, on 26 September, the lead elements of the British Army under the command of General Sir Charles Cornwallis entered Philadelphia. Howe had taken his prize. Washington, however, remained far from defeated. He kept the Continental Army in the vicinity of Philadelphia, searching for an opportunity to strike.

General Howe, for his part, began the process of opening the Delaware River to British shipping. Opening the river formed a crucial objective for the British commander, as he required the supplies on board the fleet's transports to maintain his troops. Failure to secure these vital supplies would force Howe to abandon the city. As Piers Mackesy noted, the British forces never seized sufficient forage areas while operating in North America. Instead, "the British Army in America rested on lines of communication which were strained to the uttermost."⁵

To open the river to the shipping necessary to supply the British Army would require significant effort. By the same token, if Washington reinforced the river forts, he could hope to prevent the British from opening the river and potentially undermine their gains to this point. Initially however, Washington preferred to utilize the troops differently in attacking the British detachment stationed at Germantown, Pennsylvania. As noted previously, this effort was almost successful; however, the complexity of the plan and the stalwart British defense of the Benjamin Chew House broke the momentum of the attack. Following the failed attack on Germantown on 4 October, efforts on both sides focused on the Delaware River.

Just prior to the clash at Germantown, on 1 October, Howe dispatched Colonel Thomas Stirling with a composite force to capture the southernmost American river fort at Billingsport, New Jersey. Stirling and his men were ferried across the Delaware by vessels of the Royal Navy. The post was weakly held by local militia who abandoned it on the British approach.

With the fort at Billingsport neutralized, the British began removing the first row of chevaux de frise. These obstacles, which consisted of large wooden frames, with poles mounted on one side were sunk in the river pointing southward. The poles were crowned with iron tips that remained submerged just out of view beneath the

⁴ There are numerous accounts of the Battle of Brandywine. Among the most useful in the preparation of the present essay are Gregory T. Edgar, *The Philadelphia Campaign, 1777-1778* (Westminster, MD: Heritage Books, 2004); Michael C. Harris, *Brandywine: A Military History of the Battle that Lost Philadelphia but Saved America, September 11, 1775* (El Dorado Hills, CA: Savas Beatie, 2014); and Thomas McGuire, *The Philadelphia Campaign*, 2 vols. (Mechanicsburg, PA: Stackpole Books, 2006-7), especially vol. 1, *Brandywine and the Fall of Philadelphia*. See also John S. Pancake, *1777: The Year of the Hangman* (Tuscaloosa: University of Alabama Press, 1977); John F. Reed, *Campaign to Valley Forge, July 1, 1777-December 19, 1777* (Philadelphia: University of Pennsylvania Press, 1965); and Stephen R. Taaffe, *The Philadelphia Campaign, 1777-1778* (Lawrence: University Press of Kansas, 2003).

⁵ Piers Mackesy, *The War for America, 1775-1783* (Lincoln: University of Nebraska Press, 1992), 65.

river's surface. Therefore, any ship coming up the river that did not know the proper path to avoid these obstructions would be hulled. To open the port of Philadelphia and bring in much-needed supplies for General Howe's army, the obstructions had to be removed.

The focus of British operations now shifted up the Delaware to Forts Mercer and Mifflin.⁶ The British understood from Captain Hammond of the *Roebuck* that Fort Mifflin formed the lynchpin of Philadelphia's maritime defenses. It held the upper row of *chevaux de frise* under its guns from the Pennsylvania side of the river and served as a rallying point for the ships of the Pennsylvania Navy. If the British took Fort Mifflin, the maritime path to Philadelphia would be opened, as the upper row of *chevaux de frise* could then be breached. This does not negate the importance of Fort Mercer, however, which served as a conduit for troops and supplies sent to Fort Mifflin.⁷

Fort Mifflin began as a work on Mud Island in the Delaware in 1771. British Army engineer Captain John Montessor performed the initial survey of the island and drew a series of plans for the fortifications there. The Pennsylvania government rejected his plans as they were deemed too expensive. Ironically, Montessor, by 1777 a major in the British Army Corps of Engineers, would guide the reduction of Fort Mifflin. The Pennsylvania Committee of Safety oversaw the construction of the works on Mud Island in fits and starts. By the autumn of 1777, the main defense consisted of a stone wall facing south down the river, containing three artillery positions capable of mounting 18-pounder cannons. Earthen ramparts were added to the wooden stockade walls that composed the north and west sides of the post. Additionally, the fort mounted two 18-pounders near a blockhouse that formed its northwest corner. These were situated to defend against an attack from the Pennsylvania shore. Two 4-pounder cannons were sighted along the east wall near an old ferry wharf. Finally, a chain stretched across the river from the old ferry wharf to the New Jersey side.⁸

A Pennsylvania militia colonel named John Bull initially laid down the fort at Red Bank on the New Jersey side. He erected a large work that covered some 350 yards. The Pennsylvania Committee of Safety commissioned the post to hold a garrison of approximately 1,200–1,500 troops. At some point during its construction, the site began to be referred to as Fort Mercer in commemoration of General Hugh Mercer, who died at the Battle of Princeton. As constructed, the fort required more troops and guns than could be spared to make its defenses fully functional.

In the end, the various components were all important in the defense of the city. Together, they formed a three-way defensive network composed of the land batteries,

⁶ The term *chevaux de frise* refers to defenses consisting typically of a timber or an iron barrel covered with projecting spikes and often strung with barbed wire.

⁷ John W. Jackson, *Fort Mercer: Guardian of the Delaware* (Gloucester, NJ: Gloucester County Cultural and Heritage Commission, 1986), 6.

⁸ John W. Jackson, *The Pennsylvania Navy, 1775–1781: The Defense of the Delaware* (New Brunswick, NJ: Rutgers University Press, 1974), 226–27.

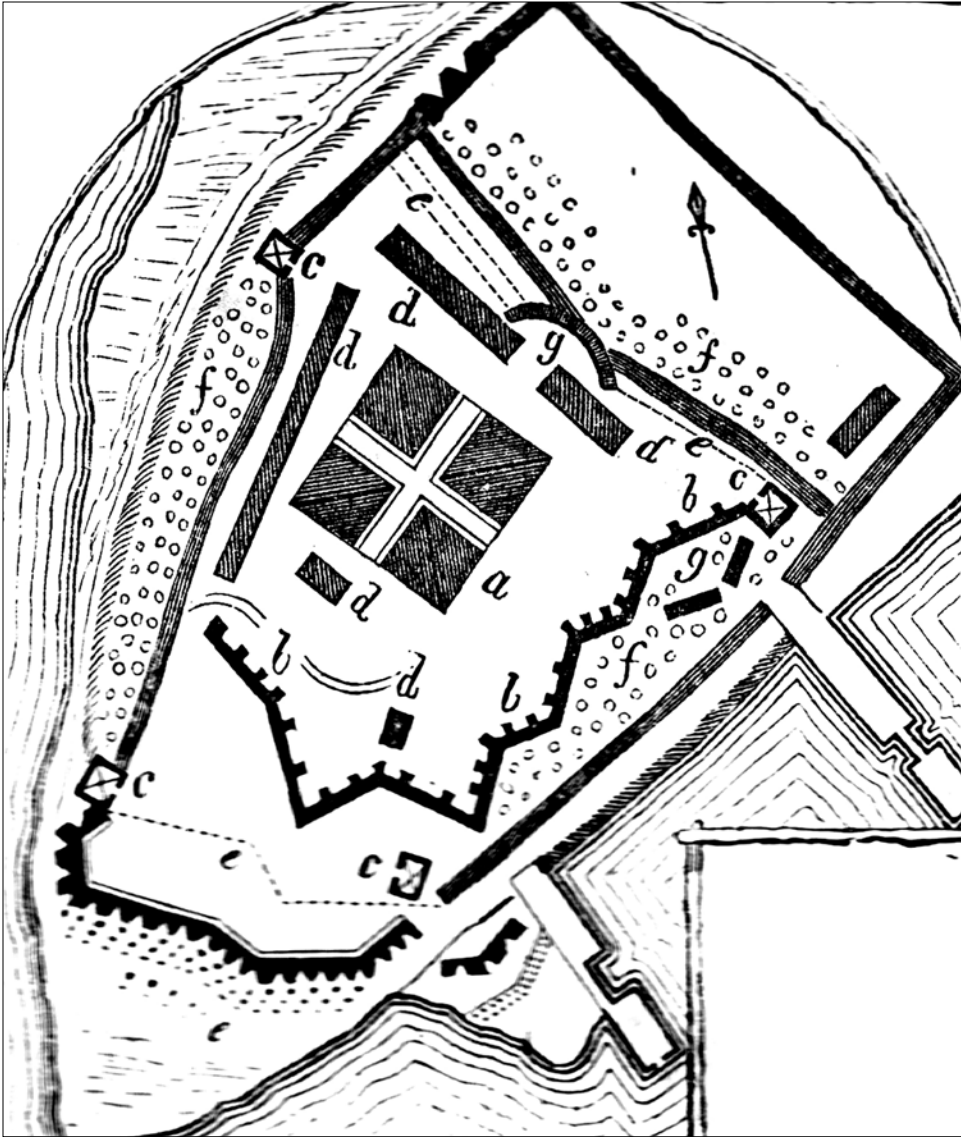


FIGURE 10

Fortifications on Mud Island, site of Fort Mifflin, predate the Revolutionary War. The island is in the Delaware River, 11 kilometers below Philadelphia. The British started building the first works, known locally as Mud Fort, in 1771. A British bombardment destroyed the first fort in 1777.

Benson J. Lossing, The Pictorial Field-Book of the Revolution, vol. 2 (New York: Harper Brothers, 1853), 298

the Pennsylvania Navy, and the chevaux de frise.⁹ Only a well-planned, concerted action from the British could breach such a defensive network (figure 10).

⁹ Jackson, *Fort Mercer*, 6–7.

The Howe brothers planned to take both forts soon after they drove Washington's Continentals back from Germantown. General Howe and his brother Admiral Howe were both held in high renown in their respective Services.¹⁰ The plan they developed involved a simultaneous land and maritime attack on both Forts Mercer and Mifflin.

In October 1777, Colonel Christopher Greene of the 2d Rhode Island Regiment received the command of the latter. Colonel Greene's forces included an attached Continental artillery company of 300 and the Gloucester, New Jersey, militia, numbering perhaps as many as 400. Thus, Greene possessed only about one-third to one-quarter of the troops necessary to fully support the defenses of the fort. Greene received an important reinforcement with the arrival of French engineer Thomas-Antoine de Mauduit du Plessis.¹¹ The Americans were at a significant disadvantage when it came to military engineering and artillery, and du Plessis possessed significant skill in both areas.¹² Du Plessis made a thorough inspection of the fort, and determined to reduce it to a five-sided work with a 10-foot deep ditch and a strong abatis.¹³

To make the above modifications, however, the garrison needed to requisition tools from the surrounding farmsteads as the troops did not possess enough of their own. By 15 October, the engineer managed to collect sufficient tools to begin significant modifications to the fort. Du Plessis created a redoubt across the fort from the river to the eastern rampart, with a double fence being constructed on the line he laid out. The space between the fences was filled with any material at hand, including construction debris, trees, and rocks. The fence reduced the size of the fort and created an inner wall running east-west along the fort's north side. These alterations reduced the fort to about one-third its original size. In addition, du Plessis sighted 14 cannons at different angles along the parapet to enable the artillery units stationed at the fort to have clear fields of fire on all the land approaches to the reconstructed redoubt. Part of the east wall was reconfigured as well to mount two cannons in a hidden battery and thus provide enfilade fire on any force that entered through the abandoned portion of the fort. Finally, with the height of the parapets set at roughly nine feet, du

¹⁰ The general had been instrumental in introducing light infantry to the British Army in the wake of the Seven Years War. His older brother, Adm Howe, had worked to develop and standardize signaling between ships in the Royal Navy. Unless otherwise noted, biographical information on the Howe brothers is derived from Andrew Jackson O'Shaughnessy, *The Men Who Lost America: British Leadership, the American Revolution, and the Fate of Empire* (New Haven, CT: Yale University Press, 2013), 83-122.

¹¹ On du Plessis, see Gilbert Bodinier and André Lasseray, *Dictionnaire des officiers de l'armée royale qui ont combattu aux Etats-Unis pendant la guerre d'indépendance, 1776-1783* (Vincennes, France: Service Historique de l'état Major de l'Armée de Terre, 1983), 339.

¹² In the eighteenth century, the French were seen as being the most skilled in both artillery and military engineering. Much of this stemmed from the efforts of Louis XIV's chief military engineer, Sébastien de Prestre de Vauban. The most recent biography of Vauban is James Falkner, *Marshal Vauban and the Defense of Louis XIV's France* (Barnsley, South Yorkshire, UK: Pen and Sword Military, 2011).

¹³ William S. Stryker, *The Forts on the Delaware in the Revolutionary War* (Trenton, NJ: John L. Murphy Publishing, 1901), 6.

Plessis constructed a banquette built into the entire wall to provide a firing step for the infantry and artillery troops working the fort.¹⁴

Du Plessis made improvements to the outer defenses of the fort as well. An abatis field fortification created from felled small trees from the Whitall orchard with their upper branches pointed outward, in some places two rows deep, was added. The abatis would form an obstruction against any advancing force and hold them under the fire of the fort's defenders as the assailants chopped their way through the felled trees.¹⁵

The reconfigured fortification allowed for an effective defense by the garrison. The fort was not without some significant shortcomings, however. The most significant flaw in the reconstructed fort was its reduced size, which meant that the majority of the garrison had to be housed outside of the works.¹⁶ The defenders were therefore forced to sleep in their tents outside the fort and hold its defenses only when alerted to the possibility of an attack.

As the likelihood of an enemy assault on the fort grew, Colonel Greene intensified his efforts to strengthen the post, and his preparations focused on the possibility of a siege rather than an outright assault. A portion of his orders on 15 October directed that "all the troops except Picquet and Main Guard will be on fatigue this day the Carpenters will get a Store Built for Provisions with all possible Expedition."¹⁷ Greene's gathering of provisions alluded to the idea that he expected to shelter in the fort for a period of time, as opposed to focusing on his defenses above all else to prepare to repulse a direct assault.

As time progressed, the indications to the American command of an imminent attack on Fort Mercer became more certain. Washington passed along to Colonel Greene several reports from his agents in and around Philadelphia indicating that the British intended a move against the post. Greene likely received some intelligence concerning a possible attack on Fort Mercer as well, as demonstrated by the following order from 16 October 1777.

*The Colonel Orders that as there is the greatest reason to believe that this Garrison will be attacked soon, the whole Garrison, except Cooks and Waiters and the Garrison Guard go on Fatigue this Day in Order to Render the Garrison as defensible as possible.*¹⁸

¹⁴ Jackson, *Fort Mercer*, 16.

¹⁵ Jackson, *Fort Mercer*, 6.

¹⁶ Jackson, *Fort Mercer*.

¹⁷ The term *picquet* refers to either a small, temporary military post closer to the enemy than the main formation or a group of soldiers detailed for a specific duty. Christopher Greene, Garrison Orders, 15 October 1777. "Papers of Christopher Greene, Lieutenant Colonel of the First Regiment, Rhode Island Infantry, 1776-1781," microfilm, Christopher Greene Papers, Rhode Island Historical Society, Providence, RI, 96.

¹⁸ Greene, Garrison Orders, 16 October 1777, "Papers of Christopher Greene, Lieutenant Colonel of the First Regiment, Rhode Island Infantry, 1776-1781," microfilm, Christopher Greene Papers, Rhode Island Historical Society, Providence, RI, 97.

Likewise, Greene dispatched troops, specifically Captain Felix Fisher's company of the Gloucester County militia, to Cooper's Ferry (modern Camden, New Jersey) to watch for the expected landing of British troops and send back notification to the fort when they came.¹⁹

On 18 October, General Howe issued orders to move his headquarters to Philadelphia. Once there, he decided that the next step in opening the Delaware River to British shipping was to seize Fort Mercer in Red Bank, New Jersey.²⁰ This stood as a logical conclusion, considering that Fort Mercer served as the staging area for supplies and reinforcements for Fort Mifflin on the Pennsylvania side of the river. Without Fort Mercer, Fort Mifflin would become untenable and the British could focus their efforts on removing the *chevaux de frise* to open navigation of the river to their shipping. To seize Fort Mercer, Howe focused on a joint land and water assault. This operation would be conducted in much the same manner as the previous attack on Billingsport. The principal difference in this action would be that the troops would cross the Delaware from Philadelphia to Cooper's Ferry and then march south to attack the post.

Simultaneously with the land attack on Fort Mercer, ships of the Royal Navy as well as land batteries under construction in the area would bombard Fort Mifflin to soften up the post so that it could be taken by storm once the British cut it off from its support.²¹ At first, Howe planned to send a British force to take Fort Mercer, but Colonel Count Carl Emil von Donop intervened and asked to make the attack with his Hessians.

The son of a noble family from Hessen-Cassel, von Donop entered the service of the *landgraf* (count) and won distinction in the Seven Years War. He rose to become the personal adjutant to the Landgraf of Hessen-Kassel by the outbreak of the American War of Independence. Due to his distinguished service record, he was placed in command of the elite troops that made up the Hessian contingent, including the three grenadier battalions and the Jaeger Corps.²² Von Donop's Hessians previously served at the battle of Long Island and Kip's Bay in New York, and von Donop was recognized for his bravery in leading troops at the Battle of Harlem Heights. His troops played a part in the pursuit of Washington's Continentals across New Jersey in the fall of 1776 as well. As a result, they were left to garrison the southern New Jersey towns of Trenton, Burlington, and Bordentown. Colonel von Donop stood as the ranking Hessian in the area when Washington surprised Colonel Johann Gottlieb

¹⁹ Stryker, *The Forts on the Delaware in the Revolutionary War*, 13.

²⁰ John W. Jackson, *With the British Army in Philadelphia, 1777-1778* (San Rafael, CA: Presidio Press, 1979), 61.

²¹ Jackson, *The Pennsylvania Navy, 1775-1781*, 230-31.

²² For more on Col von Donop's background, see Wilhelm Gottlieb Levin von Donop, *Des Obermarschalls und Drosten Wilhelm Gottlieb Levin von Donop zu Lüdershofen, Maspe Nachricht von dem Geschlecht der von Donop* (Paderborn, German: Herman Leopelb Bittneben, 1798), 21-22. See also Rodney Atwood, *The Hessians: Mercenaries from Hessen-Kassel in the American Revolution* (Cambridge, UK: Cambridge University Press, 1980), 102-3. The Jaeger were considered elite riflemen of the Hessian forces.

von Rall's troops at Trenton, and therefore fell in for a measure of the disgrace after the defeat.²³

Through much of 1777, he sought for an opportunity to restore his personal honor and that of his troops. When the opportunity to lead the assault on Fort Mercer presented itself, von Donop was quick to secure the mission. Howe ordered von Donop into New Jersey on 21 October.²⁴ At the time, one of the junior officers who took part in the expedition, Major Carl Leopold Baurmeister, noted in his journal that Howe had ordered von Donop to "capture Fort redbank on the Jersey shore by *coup de main*," or frontal assault.²⁵ While this represents a standard tactic at the time, other variables likely came into play as well.

The British neither possessed any clear intelligence concerning the strength of the works at Red Bank, nor were they aware of any of du Plessis's modifications. The order to attack the post disclosed Howe's lack of patience and reduced the options available to his subordinates in carrying out their mission.

The expedition to take Fort Mercer left Philadelphia from the Arch Street Ferry in Philadelphia on 21 October. The force consisted of the Hessian and Anspach Jaeger Corps under Colonel von Friedrich Wilhelm von Würmb, and von Donop's three Hessian grenadier battalions—von Linsing, von Minnigerode, and von Lengerke—as well as the infantry regiment of General Werner von Mirbach.²⁶ This gave von Donop a striking force of some 1,200 soldiers. In addition, he brought the battalion artillery of 10 3-pounders. A request for additional heavy artillery from the British, including howitzers to lob shells over the walls of the fort, had been turned down. Howe gave no reason for his refusal, simply informing von Donop that if the Hessians could not take the fort on their own, he would send a British unit instead. Another version alleges that when von Donop requested the howitzers, the commander of the British artillery, General Samuel Cleveland, passed the request on to a Captain Lieutenant Francis Downman, who declined to release any of the guns under his command.²⁷ Howe planned for the infantry assault on the fort to take place on 23 October, when ships of the British Royal Navy were scheduled to work their way up the river far enough to lend some artillery support. The force lacked one key element: scaling ladders to

²³ A number of works have been written concerning the Battle of Trenton. Among the most useful are William S. Stryker, *The Battles of Trenton and Princeton* (Trenton, NJ: Old Barracks Association, 2001); and David Hackett Fischer, *Washington's Crossing* (New York: Oxford University Press, 2004).

²⁴ While he could work well with superiors, von Donop was often harsh on his subordinates. This could account for some of the censure heaped on him following the battle.

²⁵ Journal of Maj Carl Leopold Baurmeister, 21 October 1777, in LtCol Donald M. Londahl-Schmidt, ed./trans., "German and British Accounts of the Assault on Fort Mercer at Redbank, NJ in October 1777," *Hessians: Journal of the Johannes Schwalm Historical Association* 16 (August 2013): 26, hereafter Baurmeister journal entry.

²⁶ These were the grenadier companies of the Hessian proprietary regiments of LtCol Otto Christian Wilhelm von Linsing, LtCol Friedrich Ludwig von Minnigerode, and Col Georg Emanuel von Lengerke, respectively.

²⁷ McGuire, *The Philadelphia Campaign*, vol. 2, 154-55.

ascend the walls of the fort. Other logistical shortcomings existed in the composition of the expedition as well, particularly the lack of wagons to transport wounded back to Philadelphia following the assault.²⁸

The Hessian troops were ferried across the river in 12 flat boats sent up from the fleet under Admiral Howe on the night of 20 October.²⁹ The movement of the troops across the river occupied much of the day on 21 October. Following British protocol, von Donop's fighters would fall under the Royal Navy captain's command during their movement across the river.³⁰

Once across the Delaware River, the Hessians made their way toward Haddonfield, New Jersey. As they proceeded along the road, they encountered some sniping fire from local militia; however, the Jaegers quickly drove these forces off. Major Baurmeister, of regiment of von Mirbach, noted in his journal that when the Hessians crossed the Delaware, "they were met by about 20 light horse who fired at the boats without results, and then retired."³¹ These fighters were most likely contingents sent out by Captain Felix Fisher of the New Jersey militia to harass the Hessians' march and gain some intelligence as to the composition of the invading force. By the evening, the Hessians reached their objective of Haddonfield, where they camped for the night.

It has been argued that von Donop was lackadaisical in his conduct during the march and took few precautions to guard information concerning his numbers and equipment.³² Records show, however, that during their bivouac in Haddonfield, von Donop did take some precautions to ensure the security of his camp. He ordered that all of the young men of the town who may have possessed Patriot leanings be gathered in the center of Haddonfield and remain there until after the Hessians departed the following morning. The Loyalists of the town aided in rounding up the suspected rebel sympathizers. Still, quartering an army in a town in the eighteenth century meant that the perimeter would remain somewhat porous. Due to the gaps in security, New Jersey militia forces operating in the area were able to warn Greene of an imminent attack.³³

²⁸ McGuire, *The Philadelphia Campaign*, vol. 2.

²⁹ Jackson, *Fort Mercer*, 17.

³⁰ David Syrett, "The Methodology of British Amphibious Operations during the Seven Years and American Wars," *Mariner's Mirror* 58, no. 3 (1972): 272, <https://doi.org/10.1080/00253359.1972.10658666>.

³¹ Baurmeister journal entry, 27.

³² McGuire, *The Philadelphia Campaign*, vol. 2, 156; and Frank H. Stewart, *History of the Battle of Red Bank with Events Prior and Subsequent Thereto* (Woodbury, NJ: Board of Freeholders of Gloucester County, 1927), 10, make the claim that the Hessian security was quite lax. Conversely, Jackson, *Fort Mercer*, 19; Mark Edward Lender, *The River War: The Fight for the Delaware, 1777* (Trenton, NJ: New Jersey Historical Commission, 1979), 24; and Gregory M. Browne, "Fort Mercer and Fort Mifflin: The Battle for the Delaware River and the Importance of American Riverine Defenses during Washington's Siege of Philadelphia" (master's thesis, Western Illinois University, 1996), 106, all note the security precautions taken by von Donop. Of these accounts, Jackson's is the most detailed.

³³ On the Hessians' security precautions, see Jackson, *Fort Mercer*, 19. Concerning their limitations, see McGuire, *The Philadelphia Campaign*, 156.

After receiving intelligence that a Hessian column was operating in the vicinity of Fort Mercer, Colonel Greene ordered his troops to strike their tents and take up a position within the cramped confines of the post. The fort could only accommodate the Rhode Islanders of Greene's command, so he dispatched the remainder of Fisher's Gloucester County militia to destroy the bridges over the intervening creeks and take whatever opportunities they could to harass the advancing column.³⁴

On the morning of 22 October, the German column was on its way to Fort Mercer. Von Donop roused his troops at 0400 to prepare for the march. In addition, he recruited some local Loyalists to serve as guides for his force on its march to Red Bank. As the Hessian force made its way to the fort, it encountered some resistance from the militias of Salem and Cape May Counties, but they were brushed aside easily. The horrible condition of the roads slowed the pace of the march as the force did not reach Fort Mercer until midday.³⁵

As they came within range of the fort, the Jaegers fanned out in front of the main body to act as a screening force. These troops were under the command of the esteemed military analyst and commentator Johann (later von) Ewald. Ewald provided a clear and insightful description of the Hessian attack after reconnoitering the American position: "I approached the fort up to rifle-shot range and found that it was provided with a breastwork twelve-feet high, palisaded and dressed with assault stakes."³⁶ In addition, von Donop, as well as his artillery officers, performed their own reconnaissance of the fort.³⁷ To some extent during their advance, the Hessians were screened from the defenders of the fort by some woods as they made the initial deployments.

The Hessian commander then sent a deputation to the fort to call for its surrender. Instead, the defenders announced they would hold the fort to the last fighter. On hearing the response, von Donop ordered each of his battalions to make 100 fascines.³⁸ The fascines were bundles of sticks, roughly a foot in diameter. These would be thrown into the ditches surrounding the fort to make a temporary pathway for the attackers as they made their assault. These preparations within sight of the objective took up an additional four hours, and it was not until 1600 that afternoon that the Hessians could initiate their assault. The delay cost the assailants any chance of surprising the post by launching a rapid assault.

At this juncture, with the element of surprise lost and daylight growing short,

³⁴ Stryker, *The Forts on the Delaware in the Revolutionary War*, 13.

³⁵ Stewart, *History of the Battle of Red Bank with Events Prior and Subsequent Thereto*, 11.

³⁶ Johann Ewald, *Diary of the American War: A Hessian Journal, Captain Johann Ewald, Field Jaeger Corps*, Joseph Tustin, trans./ed. (New Haven, CT: Yale University Press, 1979), 98.

³⁷ Diary of LtCol Levin Carl von Heister, as quoted in LtCol Donald M. Londahl-Schmidt, ed./trans., "German and British Accounts of the Assault on Fort Mercer at Redbank, NJ in October 1777," *Hessians: Journal of the Johannes Schwalm Historical Association* 16 (August 2013), 14.

³⁸ The term *fascine* refers to a rough bundle of brushwood or other material to strengthen an earthen structure or make a path across uneven or wet terrain.

von Donop attempted one last time to force the fort's surrender without launching an assault, dispatching British lieutenant colonel Alexander Stewart and a drummer to call on the fort once again to surrender.³⁹ Colonel Jeremiah Olney received the flag of truce and listened to the enemy's demands a short distance outside of the fort to prevent the enemy troops from gaining any intelligence of the inner works. Olney later recorded his response to the demand for surrender: "We shall not ask for nor expect any quarter and mean to defend the fort to the last extremity."⁴⁰

As the deputations returned to their respective lines, the Hessians attacked the garrison. They began with an opening artillery bombardment, which lasted some 10 minutes. Considering the garrison was already aware of the attacking column's presence, this cannonade fell far short of any real purpose. It was not enough to batter down any section of the fort or throw an unsuspecting garrison into confusion. At most, it might have delayed the garrison from taking the assault column under fire as they advanced.

As the cannonade ended and the Hessian troops advanced on Fort Mercer, many of the critical omissions concerning the organization and equipping of the expedition manifested. The guns the Hessians had brought with them were of insufficient weight to do any real damage to the walls of the fort, and the time spent in bombarding the works only served to alert the small vessels of the Pennsylvania Navy that the post was under assault. A flag was also raised in the fort to signal Commodore John Hazelwood, commanding the Pennsylvania Navy, of the need for galleys to come to the aid of the garrison. These small boats, which mounted one canon in the bow, moved toward the New Jersey side of the river to lend their support to the defenders of Fort Mercer.⁴¹

The assault on Red Bank was composed of three columns that were to make their attacks simultaneously: one from the north (von Minnegerode), one from the center (von Mirbach), and the other from the south (von Linsing). The grenadier battalion under von Lengerke and the Jaegers were held back in reserve. The infantry assault was set to go off at 1700.⁴²

For reasons that remain unknown, the von Linsing battalion stormed the outer works of the fort ahead of the other Hessian units. These fighters slowly pushed their way through the abatis. Here, the lack of saws and axes for such work slowed their progress. As the assault force attempted to pull themselves up the wall by hand, musketry erupted across the wall and threw back the assault. Chaplain Heinrich

³⁹ Stewart was assigned to von Donop's staff to act as an interpreter.

⁴⁰ Catherine R. Williams, *Biography of Revolutionary Heroes; Containing the Life of Brigadier Gen. William Barton, and also of Captain Stephen Olney* (Providence, RI: privately printed, 1839), 233.

⁴¹ For the use of the signal flag, see Browne, "Fort Mercer and Fort Mifflin," 111. On the notion of the bombardment alerting the ships, see McGuire, *The Philadelphia Campaign*, 162.

⁴² These names (e.g., von Minnegerode) represent grenadier companies detached from their parent units, not the name of a commander.

Carl Philip von Feilitzsch of the Anspach Jaegers wrote later in his diary, “At about four o’clock, it began. However, the commandant would not surrender so the attack was launched. The cannonade was severe and the small arms fire very heavy. In addition, several rebel ships joined which fired against us on both sides and did great damage.”⁴³

While von Feilitzsch’s account is fairly general concerning the ground assault, it does include the role played by the ships of the Pennsylvania Navy. A number of contemporary accounts single out the support given by the small ships of Hazelwood’s fleet and the havoc their artillery wrought among the advancing Hessians as an additional contributing factor in the defeat of this assault. Second Lieutenant Carl Wilhelm von Bultsingloewen of Regiment von Mirbach reported: “To our great misfortune the (enemy) row galleys and ships off shore could fire on both our flanks with grapeshot.”⁴⁴ Likewise, the official journal of the Regiment von Würmb reported the troops being fired on by the galleys “in the flank and in the rear.”⁴⁵ Finally, Reinhard Jacob Martin of the Hesse-Cassel Corps of Engineers recorded in his diary that “the row galleys had advanced still nearer, and were pouring a most terrific fire of grapeshot into our troops on the left and flank.”⁴⁶ Martin continued, providing a valuable firsthand narrative of the action from the perspective of the assailants:

*Notwithstanding this they took possession of the greater part of the main ditch, and a number of our men had already climbed up as far as the parapet; however, as the uninterrupted fire of grapeshot from the row galleys tore down whole rows of our men and . . . the above named battalions could not maintain the advantages they had gained, but had to retire to the wood behind them in order to gather their forces.*⁴⁷

Martin’s account is supported by that of Second Lieutenant Carl Friedrich Rueffer of the Regiment von Mirbach, who was wounded in the assault on Fort Mercer. He stated,

We took both the outer defenses with little effort. This had hardly occurred when, because of the extensive losses and the indescribable cannonade and small arms fire from the fort and from the enemy ships lying

⁴³ Chaplain Feilitzsch as quoted in Bruce E. Burgoyne, ed./trans., *Diaries of Two Ansbach Jaegers* (Bowie, MD: Heritage Books, 1997), 23.

⁴⁴ Journal of 2dLt Carl Willhem von Bultsingsloewen, 22 October 1777, as quoted in Londahl-Schmidt, ed./trans., “German and British Accounts of the Assault on Fort Mercer at Redbank, NJ in October 1777,” 8, hereafter von Bultsingsloewen diary. Original Ms. Hass, 4 Nr. 220, Murhard’sche Bibliothek, Kassel, Germany.

⁴⁵ Journal of the Regiment von Würmb, as quoted in Londahl-Schmidt, ed./trans., “German and British Accounts of the Assault on Fort Mercer at Redbank, NJ in October 1777,” 13.

⁴⁶ Diary of Jacob Martin as quoted in Londahl-Schmidt, ed./trans., “German and British Accounts of the Assault on Fort Mercer at Redbank, NJ in October 1777,” 11, hereafter Martin diary.

⁴⁷ Martin diary.

*on the water side, which fired on our right wing . . . necessitated a withdrawal without accomplishing our purpose.*⁴⁸

The momentum of the attack collapsed, and the survivors sought to escape the withering fire raining down on them. With the prematurely launched assault driven off, Greene and du Plessis quickly repositioned the defenders to meet the next threat to the post.

The defenders settled into these new positions just as the second attack cleared the obstructions on the inner wall of the fort. This wall stood where du Plessis had reduced the overall size of the works to more effectively defend them with the available garrison. Once they had pushed through the obstacles, the Hessians entered the outer works only to find them empty. As the Hessians cleared the abatis and made their way up the inner wall, they were greeted with a massive volley from the defenders. Von Donop went down in this assault. Lacking command and control, this attack soon collapsed, and the troops began to retreat, taking their wounded with them as best they could.⁴⁹

Colonel Israel Angell of the 2d Rhode Island Regiment left a gripping account of the fighting from the perspective of the defenders of Red Bank Fort.

*There began a smart fire as ever I heard from eight field pieces and two hoets they had placed against us, at the Same time advanced in two Colems to attack our fort by Storm, when there begun an incessant fire of Musketry which Continued forty minuts when the hessians Retreated in the most Precipitated manner leaving 200 kill'd and wounded in the field. we Spent the greatest part of the Night in bringing in the wounded.*⁵⁰

In the end, both attacks were driven off with heavy losses to the Hessians. During the retreat, the lack of wagons for the transportation of the wounded became a serious issue, and many of the injured had to be abandoned to the Americans. Among those taken prisoner was von Donop, who was transported to the nearby Whitall farm.⁵¹

With von Donop wounded and a prisoner, the command of the remnants of the column passed to Lieutenant Colonel Otto von Linsingen.⁵² He gathered up such wounded as he could and began the long march back to Philadelphia. First Lieutenant

⁴⁸ Diary of 2dLt Carl Freidrich Reuffer, as quoted in Londahl-Schmidt, ed./trans., "German and British Accounts of the Assault on Fort Mercer at Redbank, NJ in October 1777," 9, hereafter Reuffer diary.

⁴⁹ Lender, *The River War*, 26-27.

⁵⁰ Quote reproduced as close as possible to original entry, including spelling and capitalization errors. Joseph Lee Boyle, "The Israel Angell Diary, 1 October 1777-28 February 1778," *Rhode Island History* 58, no. 4 (2000): 113.

⁵¹ Lee Patrick Anderson, *Forty Minutes by the Delaware: "The Battle for Fort Mercer"* (Irvine, CA: Universal Publishers, 1999), 131.

⁵² Stryker, *The Forts on the Delaware in the Revolutionary War*, 20.

Friedrich Wilhelm Werner of the Feld-Artillerie Corps offered a brief description of the retreat in his report of the action on 22 October.

*At nightfall all the troops reassembled in the woods, on the rising ground, and at once set out on the return march by the same route. At eleven o'clock we reached the new bridge over Timber Creek, crossed it, pulled down part of it, and at three in the morning we made a halt. After a rest, we continued on to Haddonfield and to Cooper's Ferry.*⁵³

The fact that Werner refers to the bridge over Timber Creek as being only partially torn down speaks to the precipitous nature of the retreat. At the same time, the bridge may have been spared complete destruction for another purpose. Rueffer notes in his diary that many of the wounded had been left lying in a house near the battlefield, and that "Lieutenant [Leopold Friedrich Bertaud] Pertot, with some jaegers, risked returning to them, pressed some wagons, and fortunately brought them back to us."⁵⁴

While the repulse of the Hessian attack stood as an amazing accomplishment for the defenders, the officers and enlisted of von Donop's command quickly sought to explain their defeat. From their accounts, several factors emerge that contributed to the failure of the assault. For his part, von Bultsingsloewen commented on the futility of the attack with the materiel the Germans brought with them: "Although our eight cannons did what they could, the two howitzers were placed too close to the fort—both were like nothing."⁵⁵ He added a sentiment that likely entered the hearts of many of the officers as they saw what they had believed would be an easy victory morph into an ignominious defeat: "There was nothing to do but die or retire."⁵⁶ On a more practical note, he added that "we could not become master of the fort since we did not have any heavy artillery to breach the walls."⁵⁷ Rueffer added several other factors that, in his estimation, contributed to the Hessian defeat, including "the almost impassable abatis before the main fort," as well as the fact that the quickly fabricated fascines proved "of little value at the eighteen-foot high parapet."⁵⁸

To the Americans fell the duty of separating the living from the dead and offering whatever comfort they could to the former. A Private Smith of the 2d Rhode Island recorded that "the night following the battle we were all on duty, either in scouting parties or on trails."⁵⁹ He further described how his patrol found von Donop with two

⁵³ Report of 1stLt Friederich Wilhelm Werner of the Feld-Artillerie Corps, as quoted in Londahl-Schmidt, ed./trans., "German and British Accounts of the Assault on Fort Mercer at Redbank, NJ in October 1777," 6.

⁵⁴ Rueffer diary, 9.

⁵⁵ Von Bultsingsloewen diary, 8.

⁵⁶ Von Bultsingsloewen diary.

⁵⁷ Von Bultsingsloewen diary.

⁵⁸ Rueffer diary, 9.

⁵⁹ Samuel Smith, *Memoirs of Samuel Smith, a Soldier of the Revolution, 1776-1786*, ed. Charles I. Bushnell (New York: privately printed, 1860), 10.

waiters, hiding behind a pine tree. He also noted how “the next day the whole regiment was employed, except those on guard and scouting parties in digging a trench and burying the dead.”⁶⁰ He placed the number interred at somewhere between 400 and 500.

Sources vary concerning the casualties from the assault. The most recent historian to examine the engagement places the total losses of the Hessians at 370 killed, wounded, or missing.⁶¹ On the American side, casualties were much easier to determine. Most accounts place them at 14 killed, 23 wounded, and 1 missing.⁶² This action marked a resounding tactical success for American arms. In addition to the wounded and prisoners secured by the garrison, the troops were able to exchange their muskets for those of the fallen Hessians, which appeared to be of superior manufacture. So great was the bounty of weapons that Colonel Greene forwarded the surplus to the Continental Army in accordance with Washington’s orders.⁶³

Those captured near the fort who were suspected of providing aid to the Hessians on their march were dealt with as well. Smith recorded the fate of three men: “Having buried the dead, we hung three spies—one white man and two negroes. The white man confessed that he had taken pay of the British, (a tankard full of guineas,) for conducting Hessians to Red Bank.”⁶⁴

The repulse of the Hessian attack on Fort Mercer did not end the British woes, however. Von Donop’s expedition represented only one portion of a larger overall assault on the American defensive network. Recall the Royal Navy planned to support the effort against Fort Mercer by moving ships into position and bombarding Fort Mifflin at the same time of the attack on Fort Mercer. If the attack had gone according to plan on 23 October, the concerted Hessian and Royal Navy attacks would have prevented the Americans from shifting troops and ships to meet the twin assault. In addition, such an assault could have potentially reduced the works at Fort Mifflin and prepared them to be stormed by British ground forces.

Among the naval vessels slated to bring their guns to bear on Fort Mifflin were the ship-of-the-line HMS *Augusta* (1763); frigates *Pearl* (1762), *Liverpool* (1758), *Roebuck* (1774), and *Merlin* (1757); and the galley *Cornwallis* (1777).⁶⁵ It became apparent that von Donop was in fact attacking on 22 October instead. Von Donop’s impetuosity stemmed from his desire to restore the Hessian arms from the indignity they had suffered the previous year at Trenton.

Seeing the engagement develop at Fort Mercer, Captain Francis Reynolds of the

⁶⁰ Smith, *Memoirs of Samuel Smith, a Soldier of the Revolution, 1776–1786*, 10.

⁶¹ Robert K. Wright, “A Crisis of Faith: Three Defeats that Cost a Reputation,” *Hessians: Journal of the Johannes Schwalm Historical Association* 21 (2018): 63.

⁶² Wright, “A Crisis of Faith.”

⁶³ Stewart, *History of the Battle of Red Bank with Events Prior and Subsequent Thereto*, 15.

⁶⁴ Stewart, *History of the Battle of Red Bank with Events Prior and Subsequent Thereto*.

⁶⁵ Jackson, *The Pennsylvania Navy, 193–94*.

Augusta ordered the fleet to move into position to bombard Fort Mifflin.⁶⁶ The Americans in the fort returned fire, and an intense artillery duel ensued that continued during the next two hours. The smaller vessels of the Pennsylvania Navy joined in the fighting after they had driven off the Hessian attempt on Fort Mercer. At roughly 2000 that evening, the firing ceased on both sides, and the British ships retired southward in the river. As they did so, the *Augusta* ran aground.

The following day, 23 October, the British ships returned upriver to provide cover for their stranded comrades and to assist in freeing the *Augusta*. An intense artillery exchange again developed between the garrison of Fort Mifflin and the vessels of Hazelwood's Pennsylvania Navy on the one side and the Royal Navy ships on the other. The intensity of the fire eventually forced the Royal Navy vessels to withdraw downstream.

Between 1030 and 1100 that day, the *Augusta* caught fire. As the fire spread out of control, British efforts turned to evacuating the crew of the stranded vessel. Various boats from the *Augusta* as well as the *Roebuck* and the attending transports were pressed into service to remove the crew from the burning ship. Some accounts attested that fire from the American batteries hampered the British relief efforts. At about noon, the floundering ship exploded. The sound of the explosion was heard as far north as the road between Germantown and Whitemarsh. From that location, Thomas Paine, the revolutionary propagandist, wrote in a letter to Benjamin Franklin that "we were stunned with a report as loud as a peal from a hundred cannon at once" and, "turning round I saw a thick smoke rising like a pillar and spreading from the top like a tree."⁶⁷ Paine confirmed that this was the explosion of the *Augusta* and that he did not hear any explosion of the *Merlin*, which caught fire and had to be abandoned while rescuing sailors from the *Augusta*.⁶⁸

With the destruction of the *Augusta*, Admiral Howe ordered the *Merlin* burned to prevent the ship or its weapons and munitions from falling into the hands of the Americans. The loss of the *Augusta* and the *Merlin*, as well as more than 300 Hessian casualties, brought the British no closer to opening the Delaware River.

The British would eventually win the campaign on the Delaware due to their better approach to what is today referred to as *jointness*. The attack on Fort Mercer proved a valuable lesson to the Howe brothers in unity of effort. For the remainder of the campaign, British forces conducted all the efforts to open the Delaware. The Howe brothers shifted the focus of their assault to Fort Mifflin on the Pennsylvania side, and subjected the post to a massive bombardment from both the river and its shores. In the final bombardment, the Royal Navy vessels in the Delaware, including Royal Marines on the ships HMS *Vigilant* (1777) and the *Fury*, a three-gunned armed

⁶⁶ Browne, "Fort Mercer and Fort Mifflin," 117.

⁶⁷ Thomas Paine, "Military Operations Near Philadelphia in the Campaign of 1777-8," *Pennsylvania Magazine of History and Biography* 2, no. 3 (1878): 291-92.

⁶⁸ Paine, "Military Operations Near Philadelphia in the Campaign of 1777-8."

hulk, combined their efforts with those of artillerymen on the shore to inflict a devastating attack on the post.⁶⁹ In addition, the plan for the reduction of Fort Mifflin called for a final infantry assault to take the post, an action prevented by an American withdrawal from the fort, which had been reduced to a smoldering ruin by the intense bombardment. As noted at the outset, the British did not possess any formal institutional organization to facilitate amphibious or joint operations. At first glance, this appears to make efforts in this realm appear ad hoc in nature. The assumption would be misleading, however, in that the British possessed a fair amount of institutional experience performing these types of operations. The attack on Fort Mercer stands as more of the exception that demonstrates the rule. In the attack on Red Bank, the Hessian troops under von Donop operated as an independent command, and not in conjunction with the Royal Navy. Once the British forces reestablished a unified command structure, they destroyed the post at Fort Mifflin rapidly. During much of the period between 22 October and 15–16 November, the British organized and deployed their forces to administer the bombardment that pulverized Fort Mifflin.

In contrast, the attack on Fort Mercer illustrated in stark detail what could occur when some of the basic principles of joint operations are not observed. Here, the weak link in the chain was clearly the Hessians, though the British command shares in the blame. Von Donop's Hessian column arrived too soon and delayed their assault, possibly awaiting the arrival of British naval support—naval support planned for the following day. Given their lack of proper siege guns due to Downman's refusal to provide them, the delay proved fatal as it allowed the garrison to prepare a stout defense. The failed attack further illustrated the importance of the coordination of land and naval elements in the success of amphibious operations.

⁶⁹ Jackson, *The Pennsylvania Navy*, 250.

CHAPTER FIVE

Vera Cruz, 1847

J. Overton

The United States gained more territory and potential wealth from the war with Mexico than from any other conflict in the nation's history. The relatively small U.S. military of 1846, with experience gained mostly in Native American fights and civic improvement projects, defeated a large European-style army on its own soil in approximately a year's time and increased the United States' land mass by one-third.¹ Naval and land actions occurred on Mexico's west coast, including modern California and in northern Mexico. The most critical action of the war, aside from taking Mexico City, was the landing at and siege of Vera Cruz in 1847 (figure 11). Here, senior American Army and Navy officers, though lacking the formal military education of many of their lieutenants, executed a masterpiece of joint warfare and operational art. Their use of time, space, and forces in the landing and siege are seldom studied in military circles today, owing perhaps to the obvious lack of an air element and to lingering sensitivities about the U.S.-Mexico relationship and the war's justification. In the field of amphibious operations, however, Vera Cruz deserves analysis for its early use of operational art and casualty-free contested landing.

WAR WITH MEXICO UP TO 1847

War between Mexico and the United States began in May 1846 when U.S. and Mex-

¹ See Otis A. Singletary, *The Mexican War* (Chicago, IL: University of Chicago Press, 1960), 1-6.

the Mexican government and people could wait out a partial occupation and blockade by U.S. forces, both because of their ancestral “patience” and Mexico’s natural resources.³ Capturing the enemy capital was in the nineteenth century, as it would be in the twenty-first century, the accepted method of forcing a nation to submit to another’s will. U.S. Army general Winfield Scott, then in Washington, wrote a paper and plan to “take the City of Mexico” and would carry that plan out.⁴

THE CITY

Attacking Mexico City from the north, where U.S. troops would march overland hundreds of miles through deserts, mountains, and jungle, was deemed suicidal. This overland army would be decimated far more by dysentery, malaria, and yellow fever than by enemy actions. A route inland from Mexico’s Gulf Coast would be shorter and easier, however. The suggestion of an expedition against the coastal city of Vera Cruz received the most attention, especially after the president learned that a landing could be made from Isla Sacrificios, south of Vera Cruz, and that the city could be surrounded and bombarded into submission rather than stormed.

Although more economical than the northern approach, a coastal landing would not yield a quick and decisive victory. To take the capital from Vera Cruz and force surrender, the United States would have to land an army, establish a supply base, and move that army 402 kilometers (km) through swamps, jungles, and over mountains. Scott supposed 10,000 soldiers would be needed, including cavalry, artillery, and special landing craft to put them ashore. The operations should begin no later than January 1847, for even if a protracted siege had to take place before it surrendered, this would still leave time for a march inland before the yellow fever season began in May.⁵

Vera Cruz had for centuries been a logical and popular landing place for Mexico’s invaders. It was founded in 1560 where Hernán Cortés had landed for his conquest of the Aztecs. Shortly after building the city, an immense fortress called San Juan d’Ulloa, was erected on an island in front of the city. This was not enough to repel all who sought to take Vera Cruz. In 1668, the pirate Juan Aquinas Acle captured the fortress, though he was expelled a short while later by a fleet of 23 Spanish vessels. In 1693, the pirate Lorecullo defeated the city’s military garrison, sacking and looting Vera Cruz for two weeks. Nine years before the Americans arrived, French naval forces attacked and seized San Juan d’Ulloa, though “the instrument of this unusual feat

³ See John S. D. Eisenhower, *Agent of Destiny: The Life and Times of General Winfield Scott* (New York: Free Press, 1997), 223–30.

⁴ Winfield Scott, “Vera Cruz and Its Castle,” House Executive Document 60, 30th Cong., 1st Sess. (27 October 1847), 1269.

⁵ K. Jack Bauer, *Surfboats and Horse Marines: U.S. Naval Operations in the Mexican War, 1846–1848* (Annapolis, MD: Naval Institute Press, 1969), 65.

was the Paixhans shell gun whose projectiles penetrated the soft coral stone wall.⁶ Scott wrote some years later that San Juan d'Ulloa had subsequently been extended, "almost rebuilt, and its armament doubled . . . when we approached in 1847, the castle had the capacity to sink the entire American Navy."⁷

In 1847, Vera Cruz's fortifications were considered by many military planners to be among the strongest in the Western Hemisphere. San Juan d'Ulloa's 135 guns were operated by 1,030 soldiers. Further inland, the city was protected by nine smaller, connected bastions with 3,360 soldiers firing 86 guns. The city's civilian population numbered 15,000.⁸ John Phillips, a British observer, described the city just prior to the American occupation: "The town is enclosed by walls and defended by strong batteries. The sickly season prevails from June to October when the winds called Norte's blow with great violence, and clear away the malaria."⁹ This concisely describes the space, forces, and time arrayed against the American invaders.

THE LANDING

Despite the precedent others had set in taking Vera Cruz, it would be an original event for the U.S. military, which had never conducted a major amphibious operation. With Vera Cruz chosen as the invasion site, the tremendous preliminary operations began, racing against the diseases that would come to the Gulf Coast in late spring.

The overall leader of the operation was General Scott, with Navy Commodore David E. Connor and later Commodore Matthew C. Perry in charge of the naval forces involved (figures 12 and 13). Scott was one of the most senior officers in the U.S. Army. Scott had fought, been wounded, and been taken prisoner in the War of 1812. Scott also fought in the Seminole Wars, engaged in several smaller Native American conflicts, and settled peace treaties between the indigenous tribes and the British over territorial claims on the U.S.-Canada border. By 1847, he had been a general officer for 32 years.¹⁰ Connor had also fought, been wounded, and been taken prisoner in the War of 1812. In 1847, he commanded the U.S. Navy's Home Squadron in the Gulf of Mexico, but was in poor health and turned over command before the Vera Cruz operation was finished. Perry was also a veteran of the War of 1812, as well as naval actions against pirates and slavers in the Caribbean and Atlantic.¹¹ He was in Nor-

⁶ Named for Henri-Joseph Paixhans, a general of French artillery, the Paixhans gun was the first large-shell for chambered howitzers, firing a 62.5-pound shell, which was thicker-walled than bombs to penetrate before exploding. Samuel E. Morrison, *"Old Bruin": Commodore Matthew C. Perry, 1794-1858; The American Naval Officer Who Helped Found Liberia* (Boston, MA: Little, Brown, 1967), 208.

⁷ Martha A. Sandweiss, Rick Stewart, and Ben W. Huseman, *Eyewitness to War: Prints and Daguerreotypes of the Mexican War, 1846-1848* (Fort Worth, TX: Amon Carter Museum, 1989).

⁸ Bauer, *Surfboats and Horse Marines*, 83-86.

⁹ Sandweiss, Stewart, and Huseman, *Eyewitness to War*, 261.

¹⁰ See "Brevet Lieutenant General Winfield Scott," ArmyHistory.org, accessed 4 May 2020.

¹¹ See "Connor, David: Commodore, USN (1792-1856)," Naval History and Heritage Command, accessed 4 May 2020.



FIGURE 12
Commo Matthew C. Perry, ca. 1856–58.
Metropolitan Museum of Art

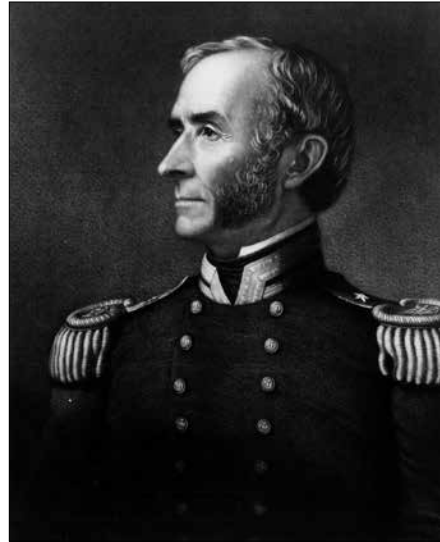


FIGURE 13
Commo David E. Conner.
Naval History and Heritage Command

folk, Virginia, when the siege began, but returned on his ship, USS *Mississippi* (1841), to take part in the bombardment and surrender of Vera Cruz.

Scott arrived in the joint operations area on 27 December 1846. On 3 January 1847, he ordered most of General Zachary Taylor's force, which had been serving in the northern theater, to the mouth of the Rio Grande River to await transport to Lobos Island. He also chartered 41 transport vessels to carry supplies, volunteers from Atlantic ports, ordnance, and specially built surf boats to land his army.¹²

On 12 January, Scott wrote to Secretary of War William L. Marcy, "In a week I shall begin to expect the arrival, off this place [the island of Brazos Santiago], of ships with troops and supplies, destined for the expedition against Vera Cruz, after replenishing their water tanks, if necessary, from the Rio Grande, they will be ordered to rendezvous behind the Island of Lobos."¹³ By early March, Scott had assembled 12,000 fighters on Lobos Island, off the coast of Vera Cruz. Although this assembly was easily observed by the Mexicans, they had not reinforced their troops in the city.

While at Lobos Island, Scott organized his troops into three divisions. One di-

¹² See Carol and Thomas Christensen, *The U.S. Mexican War, 1846–1848* (San Francisco, CA: Bay Books, 1998), 169; and Singletary, *The Mexican War*, 125–27.

¹³ Bauer, *Surfboats and Horse Marines*, 83–86.

vision of regulars fell under the command of General William J. Worth, one division of regulars reported to General David E. Twiggs, and a volunteer division answered to General Robert Patterson. Worth's division would be the first to land, followed by Patterson's volunteers. Twiggs's division would be held in reserve on board ship.

Scott and Connor decided to land on Collado beach, west of the Isla Sacrificios, and 4 km south of the city on 8 March. Despite their best-laid plans, the commanders of the United States' first great amphibious operation would be thwarted by the same factor that would postpone landing on the beaches of Normandy 97 years later—weather. A soldier on the expedition reported, “On the morning of the 8th . . . a stiff breeze commanded to blow, the surf was too heavy for landing.”¹⁴

Artillery captain Robert Anderson, who would later defend Fort Sumter, South Carolina, took a stoic attitude as the time for landing approached: “All who are here are impatient to make the attack, as many dread being detained here next month, when they apprehend greater danger from the Yellow Fever than from the balls of the Mexicans. The Yellow Fever commences in Vera Cruz about the 15th of April, so we have five weeks for operations before necessity will exist for our moving into the interior.”¹⁵

“If we have the choice of weather, we could not have selected a more propitious day,” wrote Navy Lieutenant Raphael Semmes, on 9 March 1847. “The sun shot forth his brilliant rays in a cloudless sky, and a gentle breeze from the south-east, which was favorable, and just sufficient for our purposes, rippled, without roughening the seas.”¹⁶

U.S. Army Lieutenant George B. McClellan was in the first division to land. He gave a firsthand account of the tactical preparation immediate to the landing.

On the morning of the 9th of March we were removed from the Orator to the steamer Edith, and after three of four hours spent in transferring troops to the vessels of war and steamers, we got under way and sailed for [Isla] Sacrificios. At half past one we were in full view of the town and castle [Vera Cruz and San Juan d’Ulloa], with which we soon were very intimately acquainted.

When the order was given [at 1530] the boats cast off and forming in three parallel lines pulled for shore, not a word was said—everyone expected to hear and feel their [the Mexican] batteries open up instantly. Still we pulled on and on—until at last when the first boats struck the shore, those behind, in the fleet, raised that same cheer which has echoed on all our battlefields.¹⁷

¹⁴ Grady McWhiney and Sue McWhiney, eds., *To Mexico with Taylor and Scott, 1845–1847* (Waltham, MA: Blaisdell Publishing, 1969), 102.

¹⁵ Robert Anderson, *An Artillery Officer in the Mexican War, 1846–7: Letters of Robert Anderson, Captain 3rd Artillery, U.S.A.* (New York: G. P. Putnam’s Sons, 1911), 70–71.

¹⁶ Bauer, *Surfboats and Horse Marines*, 79.

¹⁷ William Starr Myers, ed., *The Mexican War Diaries of General George B. McClellan* (New York: Da Capo, 1972), 53–54.

Not just anxiety, but a basic understanding of operational warfare on the part of even junior officers and soldiers made them fear the Mexican defenders would use mass and surprise from their inherently stronger position to repel or at least seriously impede the invasion force. Fortunately for the Americans, the Mexicans did not.

McClellan was dumbfounded by the lack of resistance or even response by their enemies: “Without waiting for the boats to strike the men jumped in up to their middles in the water and the battalions formed on their colors in an instant—our company was the right of the reserve under Colonel [Francis S.] Belton. Our company and the 3rd Artillery ascended the sand hills and saw—nothing.”¹⁸

The inactivity of the Mexican defenders at this point illustrated the most prominent in a long line of serious mistakes they would make. The weakest link in any amphibious operation is the time from when the troops leave their transports until they firmly establish a beachhead. Opportunities for the Mexicans to mass forces and take the initiative were wasted. Negligence on their part has never been fully explained, although perhaps it was due to the unwillingness of the commander of Vera Cruz, General Juan Morales, to put too much of his small force in range of the U.S. naval guns. He also may have overestimated the size of the landing force.

Whatever the failings on either side, in less than five hours, Scott had landed 8,600 troops on enemy soil without a single fatality. The regiments spent a wet, flea-infested night on the beach and the next morning, they formed and began a line of investment around the city on a ridge of sand about 3 km away.

THE BATTLE

On 10 March, the USS *Spitfire* (1846) made a diversionary attack on San Juan d’Ulloa to draw attention away from the landing of General Scott and his staff. The Army then moved slightly closer to the city and set up camp, staying under bushes or making rough shelters to keep out of the tropical sun. Some inconsequential skirmishing occurred between light gun batteries and Mexican cavalry, who intermittently harassed the Americans. Throughout the day, stores and ordnance were landed by surfboats from the offshore supply ships in such quantity as to be piled for almost 2 km along the beach. Eventually, 12,000 American fighters came ashore.¹⁹

Although the landing was successful, the large, well-defended city was not yet under U.S. control. Due to further weather delays, it would be more than a week before sufficient supplies had been landed to establish the American batteries and they could move within range of the Mexican artillery. Scott’s army had little training and, owing to the ease of the landing, were mostly untested in combat.

Scott recalled the planning process wherein he and his staff decided on their course of action:

In my little cabinet . . . I entered fully into the question of storming par-

¹⁸ Myers, *The Mexican War Diaries of General George B. McClellan*, 46.

¹⁹ Bauer, *Surfboats and Horse Marines*, 85.

*ties and regular siege approaches. A death bed discussion could hardly have been more solemn. We, of course, gentlemen, must take the city and castle before the return of the vomito—if not by head-work, the slow scientific, process, then by storming—and then escape, by pushing the conquest into the healthy interior. I am strongly inclined to take the former unless you can convince me that the other is preferable.*²⁰

No one present is recorded as making a strong case for a frontal assault, and thus, Scott decided to “take the city with the least loss of life,” hopefully for both sides.²¹ The exact population and amount of supplies in Vera Cruz were only estimated, but Scott hoped that, with the port blockaded, the city’s capitulation could be hastened by starving out the inhabitants.

Captain Anderson wrote to his wife that last night:

*the letters say there is a scanty supply of provisions which will last but a short time. . . . This morning a [Mexican courier leaving Vera Cruz] was taken who was the bearer of a dispatch from the City Authorities to the Governor of this state, complaining that no aid had been furnished, stating their condition, the scarcity of provisions, etc. They are, in fact, so completely surrounded by our troops, that it must be a dangerous thing for even individuals to enter or leave the City.*²²

Within a week of landing, the Americans clearly had taken the offensive, and time was on their side; the residents of Vera Cruz would succumb to thirst, starvation, and bombs before the Americans fell to yellow fever.

Skirmishes continued periodically between the encamped Americans and Mexican pickets, resulting in few casualties to either side, but gradually pushing the Mexicans closer to the city. Scott determined that his army ordnance, hauled ashore and now at various batteries along the line of investment, was not enough to break through the walls of Vera Cruz. He brought in six large Navy guns from the ships offshore to support the land forces. Perry, who had taken command of the Gulf Squadron on 21 March, agreed to the transfer on the condition that the guns be crewed by sailors. Navy officers and crew hauled the 6,300-pound guns more than 4.5 km while Army engineers, including Captain Robert E. Lee, supervised the placement and construction of fortified trenches around the guns of this “Naval Battery.”²³

The Americans had completed an envelopment of the city and had artillery positions in place by 22 March. Scott drafted a request for surrender, offering to spare

²⁰ George Winston Smith and Charles Judah, *Chronicles of the Gringos: The U.S. Army in the Mexican War, 1846–1848* (Albuquerque: University of New Mexico Press, 1968), 186.

²¹ Smith and Judah, *Chronicles of the Gringos*, 186.

²² Anderson, *An Artillery Officer in the Mexican War, 1846–7*, 80.

²³ Morrison, “Old Bruin”, 215.

Vera Cruz from a direct assault, but Morales courteously replied in the negative.²⁴ Anderson described the situation on 22 March: “Our mortars commenced firing the moment the answer was received, and have continued the fire night and day. . . . I sincerely hope that a few days firing will show them the inutility of longer delaying the surrender, and that the taking of this . . . will have a favorable effect in tending to an early termination of this unfortunate war.”²⁵

The naval bombardment commenced with the artillery fire. “See, gracefully approaching, five slender schooners on the water, and two steamers—they take their position,” wrote Private George C. Furber from a sand dune on Collado Beach. “Seven large mortars and four six-inch cohorts, smaller, but destructive, from the trenches of batteries Nos. 1, 2, and 3 are at work, and seven heavy guns from the [U.S. ships]; while so many are opening in reply from the castle and the city, that we cannot keep count.”²⁶

On 24 March, the naval battery ashore began shelling the city for the first time. This changed the bombardment from destructive but ineffective cannonballs to explosive shells that breached the city walls.²⁷

THE CAPITULATION

The foreign consuls from England, France, and Prussia serving in Vera Cruz appealed to Scott for a ceasefire. When Scott adroitly refused, they returned to General Morales and demanded that he surrender. Morales’s sense of honor would not allow him to surrender, so he took a time-honored approach of acting sick and allowing his relief to surrender. That relief, General Juan José Landero, sent word to Scott for a ceasefire and negotiations; and Scott ordered a ceasefire to commence at 0800 on the morning of 26 March. Landero offered to surrender Vera Cruz but not San Juan d’Ulloa. When Scott declined that proposal and prepared to resume the bombardment, Landero decided in favor of surrendering both city and fortress.²⁸

The surrender terms were generous to the city’s populace, and designed to lessen continued opposition: Scott’s army, which never exceeded 12,000 fighters, would stand little chance of achieving his ends if 7 million Mexicans were lined up solidly against him.²⁹ U.S. casualties were 19 dead and 63 wounded.³⁰

Commodore Perry issued an order to all Gulf Squadron ships, declaring that “never at any period of our naval history has the true spirit of professional gallantry been more strongly exhibited than at the present time.”³¹ Possessing Vera Cruz, U.S.

²⁴ Morrison, “*Old Bruin*”, 218; and Christensen, *The U.S. Mexican War, 1846–1848*, 171.

²⁵ Anderson, *An Artillery Officer in the Mexican War, 1846–7*, 90–99.

²⁶ Sandweiss, Stewart, and Huseman, *Eyewitness to War*, 270.

²⁷ See Eisenhower, *Agent of Destiny*, 242.

²⁸ Eisenhower, *Agent of Destiny*, 242.

²⁹ Eisenhower, *Agent of Destiny*, 243–44.

³⁰ See “Mexican War Campaigns,” U.S. Army Center of Military History, accessed 9 July 2020.

³¹ Morrison, “*Old Bruin*”, 221.

forces established a base from which the Navy could conduct operations against other Mexican Gulf Coast cities, and from which the Army could set out for its strategic objective. By 2 April, most of Scott's army was marching away from the fever-infested lowlands and on the road to Mexico City.

OPERATIONAL FACTORS

At Vera Cruz, Scott, and to a less obvious degree Connor and Perry, demonstrated a solid understanding of the operational factors of time, forces, and space. Knowing American war aims and objectives, Scott analyzed the theater of eastern Mexico in its entirety. With what would now be considered scanty intelligence, he outlined a plan balancing the resources available to him, and used them to match national policy with military strategy to accomplish operational objectives. He then, with his naval commanders, used his forces to militarily organize the space in a shorter time than his enemy. This understanding and execution made the landing and siege of Vera Cruz not only the first large-scale U.S. amphibious landing but a lasting masterpiece of operational war.

CHAPTER SIX

Courting Disaster

The Battle of Santa Rosa Island, 8–9 October 1861

Edward J. Hagerty

Soon after South Carolina adopted its ordinance of secession on 20 December 1860, Southerners mobilized quickly in anticipation of the defense of their states. Months before the first shots were fired on Fort Sumter in Charleston Harbor, lightly defended forts and arsenals across the South fell into the hands of Southern militiamen. Georgians seized Fort Pulaski at Savannah in early January 1861, followed soon after by Alabamians occupying forts around Mobile. Likewise, Florida state forces seized the federal arsenal at Apalachicola and occupied Fort Marion at Saint Augustine. Almost every incident was devoid of violence, but at least one of Florida's forts was manned by more than just the typical ordnance sergeant or caretaker. In the early morning darkness of 8 January, 50 stalwart Union defenders occupying Fort Barrancas near Pensacola were approached by about 20 armed troops apparently intent on seizing the fort. The fort's guard opened fire and sent the assailants fleeing in what may have been the first shots of the American Civil War fired by Union troops. It is possible the attackers were members of the state militia, but that fact cannot be confirmed. The Florida militia was commanded by the 62-year-old, Massachusetts-born Colonel William H. Chase, an 1815 graduate of the U.S. Military Academy at West Point. An engineer officer until he left the U.S. Army in 1856, Chase had fully adopted the lifestyle and customs of his Southern hosts after long

service on the Gulf Coast, and by 1861, he was a prominent Pensacola businessman.¹

When Florida officially seceded on 10 January 1861, the Union commander at Fort Barrancas wisely moved his troops to the more defensible offshore position at Fort Pickens on Santa Rosa Island. Chase—who as an Army engineer had designed and constructed the brick fort in 1844—twice demanded its surrender and reluctantly threatened to take it by force. The lieutenant commanding the small federal contingent refused Chase’s demands, telling him that short of political conditions in the country that might induce him to surrender, it was his “duty to hold our position until such a force is brought against us as to render it impossible to defend it.”² Chase backed down, unwilling to provide the spark that would ignite a full-scale conflict. The wishes of officials forming a new government in Montgomery, Alabama, put an end to Chase’s attempts to coerce a surrender of the fort. A negotiated truce was agreed to, stipulating that Union forces would not reinforce Fort Pickens, and Southern forces would not attack it. That state of affairs existed until Fort Sumter was fired on in April, providing the spark that Chase had wisely declined to strike.³

Once a state of war existed between the new Confederacy and the federal Union, the Confederate War Department dispatched qualified regular army officers to important posts. Thus, the irascible North Carolinian Braxton Bragg was appointed to the rank of brigadier general on 7 March 1861 and given command of the Gulf Coast from Pensacola, Florida, to Mobile, Alabama. Bragg established his headquarters at the Pensacola Navy Yard.⁴

On 21 August 1861, Brigadier General Richard H. Anderson joined Bragg at Pensacola. The South Carolinian had been appointed to brigadier rank just the month before and had assisted in arranging the defenses around Charleston, South Carolina. Until the secession of his native state, Anderson had served as a captain of dragoons and, like Bragg, was a veteran of the Mexican-American War. Bragg was pleased to have the services of Anderson and another Mexican-American War veteran, Brigadier General Daniel Ruggles. Bragg wrote to his wife on 1 September about the two generals being ordered to report to him at Pensacola and noted of Anderson, who would rank as Bragg’s senior brigade commander and his second in command, that he “was . . . a true and valliant [sic] Knight.”⁵

The ambitious Bragg, faced with a stand-off against a well-defended fort and with

¹ John S. Bowman, ed., *The Civil War Almanac* (New York: Bison Books, 1983), 41–42; Bruce S. Allardice, *More Generals in Gray* (Baton Rouge: Louisiana State University Press, 1995), 56–57; and “Fort Barrancas,” National Park Service, Gulf Islands, 2 April 2020.

² *The War of the Rebellion: A Compilation of the Official Records of the Union and Confederate Armies in the War of the Rebellion*, 53 vols. (Washington: Government Printing Office, 1880–98), 1st ser., vol. 1, 338.

³ Allardice, *More Generals in Gray*, 56–57; and *The War of the Rebellion*, 1st ser., vol. 6, 388.

⁴ Earl J. Hess, *Braxton Bragg: The Most Hated Man in the Confederacy* (Chapel Hill: University of North Carolina Press, 2016), 14–15.

⁵ Special Orders No. 130, Richard H. Anderson, Compiled Military Service Record, Record Group (RG) 109, National Archives and Records Administration, College Park, MD; and Braxton Bragg to wife, 1 September 1861, Braxton Bragg Papers, Library of Congress, Washington, DC.

insufficient armament to force the issue, was displeased with the situation. Pensacola was anticipated to play a vital role in the future of the burgeoning Confederacy, but Union naval strength would soon render it a “forgotten and petty province.”⁶ Pensacola Bay was the Gulf Coast’s best harbor, and its navy yard was second only to Norfolk, Virginia, which was destined not to remain long in Confederate hands. Unfortunately, Pensacola’s location was marred by a number of flaws as well. It had insufficient rail and road connections and limited access by sea. The 64-kilometer-long Santa Rosa Island stretched across the mouth of the bay and restricted entrance to a channel separating the island’s western tip and the mainland. On that western tip of Santa Rosa Island lay Fort Pickens, silently guarding access to the channel. Lacking the wherewithal to break the federal stranglehold on the port, Pensacola would become the site of only a few raids and bombardments. One of the Union raids took place shortly after Anderson arrived, and the response would lead to the Confederacy’s first amphibious operation of the war, a shore-to-shore affair that produced very limited results and could very well have ended in complete disaster.⁷

On 14 September, prior to that Confederate effort, a small Union force comprised of a ship’s launch and three cutters with approximately 100 troops under the command of Lieutenant John H. Russell from the USS *Colorado* (1856) slipped silently into the Pensacola Navy Yard at around 0330. They were charged with burning a Confederate privateer, the schooner *Judah*, and spiking the 10-inch cast-iron columbiad situated near where the schooner was lying.⁸ The *Judah*’s crew quickly resisted when they observed the enemy force approaching, and they poured a volley of musket fire into the boats, killing two of the Union attackers. The boarding party pressed onward undeterred, however, and U.S. Marine private John Smith was the first to board the Confederate vessel. Smith, “having lost his distinguishing mark,” was mistaken for a Rebel and in the confusing darkness was bayoneted through the stomach and chest by his own comrades.⁹ Several more of the attackers were wounded, but their persistence drove the *Judah*’s crew off that ship and onto the adjacent wharf. A contingent of guards from the navy yard came to their assistance, and the reinforced Confederates poured rifle fire into the attackers, though with little real effect. The scrambling Union sailors and Marines quickly set fire to the schooner and climbed back on board their boats, pulling away as rapidly as they could. Six well-directed shots from the boat’s pivot guns spewed canister shot toward the Confederate troops massing on the docks and ensured a safe retreat.

Simultaneous to the attack on the *Judah*, Navy lieutenant John G. Sproston and

⁶ Grady McWhiney, *Braxton Bragg and Confederate Defeat*, vol. 1, *Field Command* (New York: Columbia University Press, 1969), 177.

⁷ McWhiney, *Braxton Bragg and Confederate Defeat*.

⁸ The term *columbiad* refers to a heavy, long-chambered, muzzle-loading gun designed for throwing shells and shot at high angles of elevation.

⁹ *The Official Records of the Union and Confederate Navies in the War of the Rebellion*, 27 vols. (Washington: Government Printing Office, 1894–1917), 1st ser., vol. 16, 670–73, hereafter ORN.

Gunner James D. Borton located the columbiad. Somehow separated from the others in their party, they were lucky to discover that only a lone sentry was guarding the giant gun. The guard immediately leveled his rifle to fire at Sproston. Borton, however, already had the sentry in his sights. Both fired almost simultaneously, but Borton's shot found its mark. The Confederate sentry fell to the ground. The troops quickly spiked the gun and carried off its tampion (muzzle cover) as a souvenir and as proof of their deed. Overall, the raiding party lost two sailors and one Marine killed, while nine sailors and four Marines were wounded. It was a small price to pay for such a daring and successful mission that, despite its small scale, had significant results. The elated sailors and Marines pulling for the *Colorado* watched as the *Judah* burned to the waterline in their wake. The incident marked the first bloodshed to occur in Florida during the war.¹⁰

Bragg was stunned by the raid's outcome, claiming that "our guards were not surprised, but by some strange neglect, which is now under investigation, permitted the success of this daring exploit."¹¹ One contributing factor he cited was the previous night's desertion of a patrol boat crewed by several enlisted Confederate Marines. Bragg suspected they guided the federal party to its mark. In fact, the schooner's movements had been closely observed for the past several days, and the Union commander believed the *Judah* was being fitted out as a privateer. He thus determined to mount the raid to destroy the ship. This was not the first successful raid against the rebels. Less than two weeks before the attack that burned the *Judah*, an 11-person crew destroyed a partially sunken dry dock that could have been repaired and used by the Confederates. Unable to mount a large-scale attack to rid the island of its Union occupiers, the frustrated Bragg concluded that his foe must at least be "chastised . . . for his annoyances."¹²

Insolently facing Bragg directly across the channel from the navy yard was the Union garrison securely ensconced in Chase's sturdy Fort Pickens. Though constructed to guard against seaward assaults, the fort's massive guns were now turned inland instead and trained on the rebel defenses and the navy yard. Woefully outgunned by the long-range pieces bristling from the fort, the Confederate advantage of having recovered the navy yard intact was effectively neutralized. As a result, the yard's superb facilities were nearly useless to them. Commanding Fort Pickens and the Department of Florida was 66-year-old Colonel Harvey Brown of the 5th U.S. Artillery. A highly experienced veteran and winner of brevet promotions in the Second Seminole War (1835-42) and the Mexican-American War (1846-48), Brown had with him a force of Regulars from the 1st, 2d, 4th, and 5th Artillery, as well as the 3d U.S. Infantry.¹³ Outside the walls of the fort, the politician and former prize fighter Colonel William

¹⁰ ORN, 1st ser., vol. 16, 670-73.

¹¹ *The War of the Rebellion*, 1st ser., vol. 6, 438.

¹² *The War of the Rebellion*, 1st ser., vol. 6, 437-38, 458.

¹³ *The War of the Rebellion*, 1st ser., vol. 6, 444-55.

Wilson of New York commanded an unruly regiment comprised largely of boisterous New York Irishmen. Known as Wilson's Zouaves, the unit's official designation was the 6th Regiment New York Volunteer Infantry.¹⁴ Wilson's regiment was positioned to protect the fort and the additional batteries lying outside its walls from a land-based attack. The fort's defenses were rounded out by a roving squadron of U.S. Navy ships that effectively blockaded the bay and supplied a significant amount of additional firepower. It fell to Bragg to command a fine southern seaport rendered virtually useless by the presence of the strong Union force just offshore. Bragg knew that he was stymied and he repeatedly voiced his annoyance with the situation. Without the artillery and seapower such a task required, there was no other way to take the fort than "with a regular siege, and we have no means to carry that on."¹⁵

Still, the small but successful Union raids required some kind of response, and Bragg planned a retaliatory strike against Santa Rosa Island that would entail the landing of a fairly significantly size amphibious force. To command the expedition, he selected his senior subordinate, Brigadier General Anderson. Bragg was taking a very hazardous risk in sending an inexperienced force on a nighttime mission commanded by an officer who until then had led nothing larger than a company or two of dragoons. Moreover, the lack of solid intelligence was an astounding oversight. Despite nearly a month elapsing between the Union raid on the *Judah* and the planned retaliatory response, it was not until the night prior to Anderson's expedition that Captain William R. Boggs and First Lieutenant J. E. Slaughter, two of Bragg's staff officers, were dispatched to the island to determine the prospect of success for a surprise attack on the encampments around Fort Pickens. It seems likely that Bragg was not to be deterred no matter the findings of the 11th-hour scouting mission.¹⁶

Boggs was convinced that Bragg thought that his military skills were being wasted at Pensacola, and he later wrote that the assault on the island was primarily a result of Bragg's increasing displeasure at missing important events in other theaters, including both Fort Sumter and the Battle of Manassas.¹⁷ Moreover, others were gaining promotion ahead of him, and Major General Mansfield Lovell had just been placed in command of New Orleans, Louisiana, a post Bragg coveted for himself. Bragg's displeasure and envy must have been apparent to his troops, who likewise wished to serve in a more active theater. Several promising officers had grown restless as the inaction of the garrison at Pensacola dragged on, and some had already received transfers to Virginia. Among those seeking to escape the stalemate was the highly experienced Brigadier General William Henry Talbot Walker, a Georgian who, like

¹⁴ *The War of the Rebellion*, 1st ser., vol. 6, 446.

¹⁵ "Gulf Islands National Seashore: Fort Pickens: Self-guided Tour," National Park Planner, 18 December 2019; *The War of the Rebellion*, 1st ser., vol. 6, 438; and McWhiney, *Braxton Bragg and Confederate Defeat*, 165.

¹⁶ William R. Boggs, *Military Reminiscences of Gen. Wm. R. Boggs, C.S.A.*, vol. 3, *The John Lawson Monographs of the Trinity College Historical Society* (Durham, SC: Seeman Printery, 1913), 14; and *The War of the Rebellion*, 1st ser., vol. 6, 458.

¹⁷ Boggs, *Military Reminiscences of Gen. Wm. R. Boggs, C.S.A.*, 14.



FIGURE 14

“They came to fight.” The peaceful camp scene near the Warrenton Navy Yard depicting men of Company B, 9th Mississippi Infantry, still dressed in a variety of civilian clothing, belied their eagerness for battle. The men responded enthusiastically to a call for volunteers to undertake the raid on Santa Rosa Island.

Library of Congress Prints and Photographs Division

many others, harbored an intense dislike for Bragg and considered his position under Bragg “a d—d insult to me.”¹⁸

Bragg, notwithstanding the risk and with Confederate honor at stake, undoubtedly felt some pressure to move ahead with the attack. The expressed goals were to burn Wilson’s Zouaves’ camp, spike a number of Union guns, and avenge “the annoyances he had recently caused my command,” but it also seems that a number of unstated goals were at work behind the scenes as well.¹⁹

Bragg’s call for 16 volunteers from each of the companies under his command prompted an enthusiastic response from the eager soldiers. He touted their enthusiasm, noting that some of them had declined to perform common labor on the defensive works, claiming indignantly that “they came to fight.”²⁰ Many did, indeed, jump at the chance for action (figure 14). Colonel John K. Jackson formed Company F of

¹⁸ Boggs, *Military Reminiscences of Gen. Wm. R. Boggs, C.S.A.*, 14; and McWhiney, *Braxton Bragg and Confederate Defeat*, 188.

¹⁹ McWhiney, *Braxton Bragg and Confederate Defeat*, 188; and *The War of the Rebellion*, 1st ser., vol. 6, 458.

²⁰ Bragg to wife, 24 April 1861, Bragg Papers, Library of Congress, Washington, DC.

the 5th Regiment Georgia Volunteer Infantry at its hilltop camp overlooking Pensacola and told the soldiers that he wanted volunteers “for hazardous work tonight.”²¹ He asked all who were willing to go to shoulder their arms. The entire company responded instantly by quickly swinging their rifles to their shoulders. “Lieut. [Eugenius L.] Douglas then detailed 17 men from the right,” wrote Private Richard A. Clayton to his father, “I and Milt were (to our joy) included.” Unfortunately, the sudden call for troops meant that in addition to inadequate intelligence gathering, there was no actual preparation or training for an amphibious mission.²²

Nonetheless, many other volunteers were equally excited about the prospect of action. Another private in the 5th Regiment Georgia Volunteer Infantry, W. J. Milner of Company A, also recalled the selection of soldiers from his company. In keeping with the standard evening routine, his captain assembled the troops for dress parade and drill, but he soon told them that there would be no parading that day. Instead, he requested 16 volunteers for a “hazardous expedition,” and told the Georgians ominously that he did “not want any man to go who is not willing to die tonight if necessary.” Like Clayton, Milner reported that the request for volunteers to bring their rifles to the shoulder was met with an enthusiastic response that, “if he had given the order ‘Shoulder Arms’ . . . could not have been more promptly and completely complied with.”²³

Ordered to prepare to “march at any moment, with sixty rounds of cartridges,” Milner recalled that members of his company busied themselves readying their arms and accoutrements for imminent battle. The soldiers carefully honed the saber bayonets for their M1841 Mississippi rifles until they were “as sharp as butcher knives.”²⁴ Most were preparing for their first taste of battle, and they went about the business with an excited determination that likely masked a degree of apprehension. Without training and preparation for the task, none had even an inkling what their mission would entail, yet all knew where the enemy lay and were anxious to participate despite the waiting danger. Some were appalled at the thought of missing out on the action. One disconsolate private in Milner’s company begged with tears in his eyes and the offer of \$25 to take their place. Milner declined the offer. “Think of conquering an army of such soldiers!” he later wrote.²⁵

On the night of 8 October 1861, Brigadier General Anderson assembled the bulk of his ill-prepared force at the navy yard and embarked them onto the steamer CSS *Time* for a short trip along the shoreline to nearby Pensacola, lying just northeast of the navy yard. Meanwhile, other troops who were encamped closer to the town made

²¹ William S. Smedlund, *Camp Fires of Georgia’s Troops, 1861–1865* (Lithonia, GA: Kennesaw Mountain Press, 1994), 255.

²² Smedlund, *Camp Fires of Georgia’s Troops, 1861–1865*, 255.

²³ W. J. Milner, “Reminiscences,” Murphy Family Papers, Special Collections, John C. Pace Library, University of West Florida, Pensacola, FL.

²⁴ Milner, “Reminiscences.”

²⁵ Milner, “Reminiscences.”

their way down to the wharves to await the arrival of their comrades. There they were to be loaded onto vessels thought to be suitable for the purpose of landing on the island. Aboard the *Time*, in a fit of last-minute planning, Anderson decided to disperse his troops into three battalions. The first, composed of 350 personnel from the 9th and 10th Regiments Mississippi Infantry and 1st Regiment Alabama Infantry, was commanded by Colonel James R. Chalmers of the 9th Mississippi.²⁶ A graduate of South Carolina College, Chalmers, a Mississippi lawyer and politician, had no military experience. The second of the three battalions was made up of three companies of the 7th Regiment Alabama Infantry, two companies of Louisiana infantry, and two of the 1st Regiment Florida Infantry, totaling 400 soldiers under the command of Colonel James Patton Anderson of the 1st Florida.²⁷ Colonel Anderson, known as Patton, had a widely varied antebellum career as a doctor and politician, but of all the battalion commanders he at least had some experience, having raised and commanded the 1st Battalion, Mississippi Rifles, during the war with Mexico.

Colonel Jackson of 5th Georgia commanded the final battalion, numbering 260 troops of the 5th Georgia and the Georgia battalion.²⁸ Like Chalmers, Jackson also had no military experience, but the Georgia lawyer had nonetheless managed to turn his regiment into a finely regarded body of troops. Another detachment of 53 volunteers lightly armed with pistols and knives was charged with spiking the Union guns and with burning buildings and gun carriages. That group was commanded by acting ordnance officer Lieutenant James H. Hallonquist, assisted by Lieutenant Llewellyn A. Nelms, adjutant of the 5th Georgia. Brigadier General Anderson also took along five surgeons and a detail of 20 volunteers to assist them.²⁹

Arriving at Pensacola around 2200, Brigadier General Anderson began transferring part of his force to the steamer CSS *Ewing* and a variety of barges and flat boats. With more than a thousand troops involved, there was some confusion in loading the boats in the darkness. The disorder and lack of rehearsal for the operation made for a bad start, and it caused a delay that would have serious repercussions for the success of Anderson's mission. Once loaded, a more serious problem arose related to the lack of proper planning when they realized the underpowered *Ewing* was unable to tow the crowded barges and boats. Private Clayton recalled that he "would have knocked down a half dozen" of his comrades had he fallen over in the densely packed vessel. Brigadier General Anderson quickly requested assistance from Confederate Navy captain Thomas W. Brent, and the steamer CSS *Neafie* was brought up to assist.³⁰

It was just after midnight before the expedition belatedly set out toward the is-

²⁶ *The War of the Rebellion*, 1st ser., vol. 6, 460.

²⁷ *The War of the Rebellion*, 1st ser., vol. 6.

²⁸ *The War of the Rebellion*, 1st ser., vol. 6.

²⁹ *The War of the Rebellion*, 1st ser., vol. 6, 460–61; McWhiney, *Braxton Bragg and Confederate Defeat*, 181–82; and Ezra J. Warner, *Generals in Gray: Lives of the Confederate Commanders* (Baton Rouge: Louisiana State University Press, 2006), 7.

³⁰ *The War of the Rebellion*, 1st ser., vol. 6, 461; and Smedlund, *Camp Fires of Georgia's Troops, 1861–1865*, 255.

land. The young soldiers were left to their own thoughts and prayers as they silently plied through the dark waters toward an uncertain fate. Excitement combined with the anticipation of battle began to wear on some troops. Clayton later wrote of the “curious feelings” he had in the tense and uncertain darkness of that night. “I thought of you—my sisters, brothers and friends—prayed God to bless you and them,” he informed his father.³¹ General Anderson’s fortunes took a turn for the better after the confused start, with a smooth crossing followed by an uneventful landing and disembarkation. Although the tide was in and the vessels were able to draw close to the beach, many soldiers were soaked from having to wade through the surf, and a few unfortunate ones even found it necessary to swim ashore. Anderson formed his three battalions on the beach by just after 0200 that morning, but they were still about 6 kilometers from Fort Pickens, and events would once again begin to go awry.³²

The undetected crossing and landing was a significant success for Brigadier General Anderson. The plan depended largely on the level of surprise that was necessary both to accomplish the expedition’s goals and to facilitate the withdrawal of his force. The interception or bombardment of his transports as they attempted to return to Pensacola could spell disaster (figure 15).

Once ashore, Brigadier General Anderson explicitly instructed Colonels Chalmers and Patton Anderson to make every effort to maintain the element of surprise by capturing Union pickets or guards before shots could be fired. He then dispatched Chalmers along the north beach adjacent to the bay, while Patton Anderson crossed the island’s narrow width and turned westward along the south beach adjacent to the gulf. Colonel Jackson’s element followed a few hundred yards in Chalmers’s wake, but he was to deploy his troops across the middle of the island and bridge the gap between the two columns once contact was made with the enemy’s pickets. Lieutenant Hallonquist’s detail followed Jackson, ready to destroy the abandoned Union camps and spike any guns they captured. Brigadier General Anderson probably marched with Jackson, which would have enabled him to direct events from a central location between each of the other two battalions. Despite the seemingly judicious disposition of his soldiers, the plan now depended not only on the element of surprise, but also on the coordination between three geographically separated contingents marching in near total darkness across difficult terrain. Early detection or a vigorous response to the Confederate attack could have proved fatal to Brigadier General Anderson’s ability to make a successful withdrawal to the landing beach.³³

By the time they approached the Zouave camp, the troops were already fairly exhausted from slogging through the soft sand and surf along the beaches. Anderson reported later in what was probably a gross understatement that the march was “toilsome and fatiguing,” but Private Clayton provided a more vivid view of the diffi-

³¹ Smedlund, *Camp Fires of Georgia’s Troops, 1861–1865*, 255.

³² *The War of the Rebellion*, 1st ser., vol. 6, 461.

³³ *The War of the Rebellion*, 1st ser., vol. 6, 461.

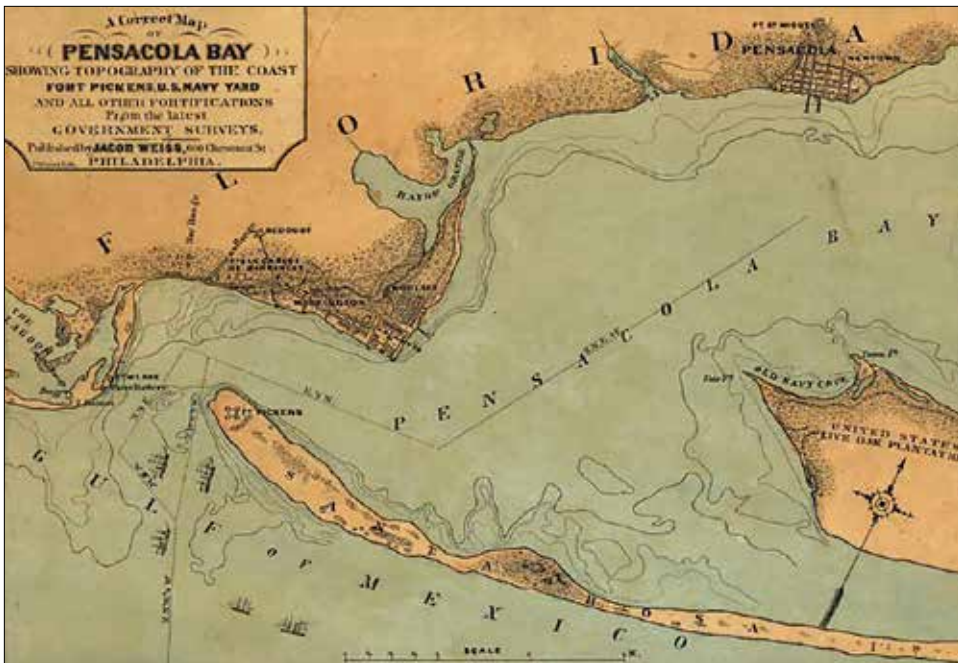


FIGURE 15

A Civil War-era government survey map showing the topographical features and defensive works at Pensacola Bay. Anderson's raiding force set off from Pensacola and most likely landed somewhere in the vicinity of the wooded mass shown at the center of the island, approximately where the letter "R" in Rosa is printed. That location likely provided at least some security in obscuring the landing from easy observation, although the resulting march of about 6 kilometers to the camp of Wilson's Zouaves was a tiresome ordeal, and the withdrawal even more hazardous.

Library of Congress Geography and Map Division

culties when he reported that Jackson's command had "marched very fast—way down next to the water. Sometimes the waves would roll high up above our shoes—sometimes almost to our knees."³⁴ During the march, some confusion arose in Jackson's column when troops appeared at their rear. The Georgians waited nervously to find out whether they were friend or foe, all the while fearful of being fired on by either in the darkness. They soon observed the white strips of cloth that their comrades had affixed to their left arms as a means of identification, and realized that the soldiers were friends, probably from Hallonquist's contingent. Moving on a short distance, the night's stillness was abruptly shattered by the loud boom of a rifle followed rapidly by several more shots. A Union soldier on picket duty had fired wildly at the head of Chalmers's battalion and was quickly shot down.³⁵

³⁴ Smedlund, *Camp Fires of Georgia's Troops*, 255.

³⁵ *The War of the Rebellion*, 1st ser., vol. 6, 461.

With the element of surprise now lost, Anderson ordered Jackson to deploy and advance rapidly through the undergrowth between the beaches. Jackson's troops soon brushed aside the pickets of the 6th New York and burst into the Zouave camp. They found the company streets paved with pine boughs and shaded by arbors, but of Wilson's Zouaves, they found little trace. "The rascals had fled to the fort," wrote Private Clayton.³⁶ Hallonquist's troops quickly sprang into action in the deserted camp, setting fire to tents, sheds, and storehouses. Their work was made simpler by the dried pine branches shading the campsites from above and covering the sand below, and the conflagration grew rapidly. Meanwhile, Bragg anxiously searched the dark silhouette of the island across the bay with his field glasses, relieved to see the raging fires rising into the night sky. It could only signal that the operation was a success. Bragg would later report the rout of the Zouaves with much satisfaction. They "fled in their shirt tails . . . at the first fire," he wrote. Alluding to the precipitous Union retreat across Bull Run at the Battle of Manassas, Bragg cynically drew a comparison to his own little victory and commented that the New Yorkers had "started early and made Bull Run time, [so] we caught but few of them."³⁷

Despite his subsequent glee at the results, Bragg was plagued at the time by the very realistic fear that defeat could at any moment be snatched from the jaws of victory, with the entire Confederate force captured on the island or decimated by the fort's firepower on the return trip across the bay. In fact, Anderson's early success in overrunning the Zouave camp turned out to be the high point of the affair. To his credit, he quickly understood the circumstances and ordered his troops back to the transports. Subsequent events coupled with a quick response by other Union forces conspired against an easy escape, however. First, Private Clayton's observation was not entirely accurate. Wilson's Zouaves did not completely disappear from the scene of the engagement. Small groups of New Yorkers did offer Anderson's troops some resistance, but the scene was one of much confusion. "The darkness that generally precedes the break of day was unusually dense," recalled one Union participant, "and we could not distinguish friend from foe." Another soldier, Private William Scott, on hearing the firing, ran from his sick bed in the camp hospital with musket in hand. He was met at the tent door by Captain Richard H. Bradford of the *1st Florida*. "Who are you?" asked the startled captain. "I'll show you who I am!" cried Scott, killing Bradford instantly with a shot through the heart before also being cut down by Bradford's troops.³⁸

Wilson's command numbered no more than 250 at that time, as several compa-

³⁶ Smedlund, *Camp Fires of Georgia's Troops, 1861-1865*, 255.

³⁷ Braxton Bragg to Samuel Cooper and Elise Bragg, as quoted in McWhiney, *Braxton Bragg and Confederate Defeat*, 194.

³⁸ McWhiney, *Braxton Bragg and Confederate Defeat*, 193; Janet B. Hewett, ed., et al., *Supplement to the Official Records of the Union and Confederate Armies*, pt. 1, vol. 1, serial 6 (Wilmington, NC: Broadfoot Publishing, 1994), 449, 453; and Michael Nash, "Our Fort Pickens Correspondent," *New York Tablet: A Family Journal*, 30 November 1861.



FIGURE 16

German-born artist Adalbert Volck displayed his Southern sympathies in this 1863 etching depicting the Confederate attack on the camp of Wilson's Zouaves. Confederate troops are in the process of routing the stunned Zouaves and burning their camp while a frightened Col Wilson peers fearfully from his tent.

Library of Congress Prints and Photographs Division

nies were not at the camp. At the first indication of attack, Wilson later said that he had the soldiers fall out on the drill ground. They were forming on the color line on the east side of the camp when the officer of the picket guard ran up and reported that about 2,000 troops in two columns were converging on them. The picket guards, meanwhile, were still making a fighting withdrawal. At about the same time, the officer of the day had rushed the Zouaves' main guard contingent toward the gulf beach, from which he must have presumed the most serious threat stemmed. They ran headlong into an overwhelming force of surging rebel troops, and a brief flurry of shots ensued, during which the officer of the day was "knocked down and walked over."³⁹ As he arose, he shot a soldier taking aim at him and fled back in the direction of the camp.

Wilson was wheeling his assembled fighters around on the drill field to meet the attack from their left flank when they began to receive fire from inside the camp. The Zouaves returned a volley or two, but the entire camp was quickly engulfed in flames (figure 16). One New Yorker recalled hearing the rebels shout, "No quarter to Wilson's men," as they pillaged the camp. The fires illuminated the scene for the New Yorkers,

³⁹ *The War of the Rebellion*, 1st ser., vol. 6, 448.

who soon saw the situation they faced more clearly. Hundreds of Confederates were milling about and moving to cut them off from the fort. Unable to restrain his troops, Wilson's soldiers "broke for the beach" and the safety of the fort's guns. Their regimental colors were saved only due to the bravery of Quartermaster Sergeant James Chadwick, who ran into Colonel Wilson's flaming tent and retrieved them. One rebel who received information after the attack from one who "ought to know," reported later that Anderson's troops were shooting down the Zouaves "like wild hogs making their camp ground look very much like a hog pen at killing time."⁴⁰

Brigadier General Anderson's attack lost its momentum as discipline faltered in the ranks and rampaging Confederates stopped to loot the camp. Observing the scene from a distance, one Zouave reported afterward that the rebel troops in the camp first formed into line and fired a few "wonderfully well-ordered volleys, then for some unknown reason formed a square; why this was done no man knows."⁴¹ One possible reason for that move, normally a defense against mounted troops, might have been an effort on the part of the officers to exert some order and reestablish control of the troops who were looting the Zouave camp. If so, it was only partly successful, for when Anderson ordered a return to the boats, it was a disorganized mass of troops that headed away from the billowing firestorm that had once been home to the Zouaves.

In the meantime, other Union troops in and around the fort had rushed to the aid of the New Yorkers. An assortment of troops from the 3d Infantry and 1st Artillery led by Major Israel Vodges was the first to respond.⁴² Vodges led his troops along the north beach toward the camp, picking up a company of Wilson's New Yorkers along the way that soon disappeared after being ordered to act as skirmishers on Vodges's left flank.

The appearance of a large force on Vodges's right flank once again led to uncertainty about whether they were Confederates. He directed his command to hold its fire. Meanwhile, Colonel Jackson's troops had begun their retreat at General Anderson's order. They soon glimpsed the bayonets of Vodges's troops gleaming in the firelight, but they too were unsure about whether the troops sighted were friend or foe. The Confederates were convinced that the bright bayonets belonged to their comrades and thus did not fire. Vodges decided otherwise and a volley from his troops tore into the rebel ranks and soon set the matter straight—for a moment at least.

⁴⁰ *The War of the Rebellion*, 1st ser., vol. 6, 447–48; Hewett et al., *Supplement to the Official Records of the Union and Confederate Armies*, pt. 1, vol. 1, 453; and M. W. Shanahan to James Ham, 13 October 1862, M. W. Shanahan Letter, Abraham Lincoln Presidential Library, Springfield, IL, hereafter Shanahan letter.

⁴¹ Gouverneur Morris, *The History of a Volunteer Regiment, Being a Succinct Account of the Organization, Services and Adventures of the Sixth Regiment New York Volunteers Infantry Known as Wilson Zouaves: Where They Went—What They Did—and What They Saw in the War of the Rebellion, 1861 to 1865* (New York: Veteran Volunteer Publishing, 1891), 61.

⁴² *The War of the Rebellion*, 1st ser., vol. 6, 439.

Colonel Jackson, still believing that Vodges's troops were friendly and the firing a case of mistaken identity, rode up and ordered the troops to cease fire and form a line. The scene remained confusing as some Confederates who did not hear the order kept firing while others shouted, "Don't shoot! They are our men."⁴³

Vodges had turned his line to the right to face the rebels, but now he too must have doubted the identity of the troops he confronted. He rode forward and was immediately taken prisoner. Two privates pulled Vogdes from his mule, while a lieutenant held onto the animal's bridle and threatened to cut the major down with his sword if he did not surrender. Within seconds, a Confederate officer stepped forward and addressed Captain John McL. Hildt, now commanding Vogdes's detachment. The rebel informed Hildt that Vogdes was a prisoner and requested he surrender his troops. Hildt's soldiers instead loosed a flurry of shots directed toward the officer. Hildt briefly opposed the retreat of Anderson's force along the north beach until the weight of superior numbers finally brushed him aside. Yankees and rebels continued to blunder into one another for a time, until Anderson finally had most of his command back on the beaches and ready to load onto the transports.⁴⁴

In the excitement, confusion, and darkness, the dangers of Anderson's troop dispositions had become apparent. Separated and scattered across the island, small groups of survivors would have fallen prey to their pursuers had they too not been equally confused as well as substantially weaker. Some did fall into Union hands. Private John Ashburn of the *1st Georgia Regiment* was captured, but his companion, Corporal Peter E. Turner, came to his rescue. Coming up to Ashburn in the darkness, Turner asked him what he was doing. He replied that he was a prisoner. Ashburn's Yankee guard ordered Turner to surrender as well, but the rebel refused. He leveled his gun and "killed the Yankee so dead he never kicked." Anderson was also compelled to leave behind a number of Confederate dead and wounded, the latter under the care of surgeons and a small guard who were all taken prisoner.⁴⁵

For the bulk of Anderson's troops, the paramount concern now was reaching the mainland before their pursuers mounted a more vigorous assault and trapped them all. The expedition's late start was now being keenly felt. The rapidly approaching rays of dawn would enable the guns of the fort and the ships of the blockading squadron to fire accurately on the beach or the fleeing transports. That concern must have been foremost in Anderson's mind as he encouraged his tired soldiers along the sand. Had he known that one of Colonel Brown's first actions was to order the sidewheeler USS *McClellan* to steam along the island's coast to the Confederate landing site, or that Vodges had requested Brown send any available field pieces, Anderson might have despaired of a successful escape for—in another lapse of adequate planning—there

⁴³ *The War of the Rebellion*, 1st ser., vol. 6, 448-49; Hewett et al., *Supplement to the Official Records of the Union and Confederate Armies*, pt. 1, vol. 1, 454-55; and Milner, "Reminiscences."

⁴⁴ *The War of the Rebellion*, 1st ser., vol. 6, 448-49; Hewett et al., *Supplement to the Official Records of the Union and Confederate Armies*, pt. 1, vol. 1, 454-55; and Milner, "Reminiscences."

⁴⁵ Hewett et al., *Supplement to the Official Records of the Union and Confederate Armies*, pt. 1, vol. 1, 455.

was no additional Confederate naval support with the landing ships. Fortunately for Anderson, the *McClellan* attempted to tow the frigate USS *Potomac* (1822) with its additional personnel to the scene in the event a landing on the beach became necessary. The delay that ensued prevented either ship from reaching the site until too late; but had the *McClellan* set out alone, its rifled guns very well might have driven off or destroyed the Confederate steamers and left Brigadier General Anderson's force stranded.⁴⁶

Yet, there would be trouble enough for the retreating Southerners, who failed to take into account the importance of hydrographic factors in their already inadequate planning. The tide had receded by then and the ships and barges had been compelled to stand off into deeper water. Exhausted Confederates now had a considerably greater distance to struggle through the surf. The disorganized force made its way to the bobbing ships as quickly as the troops could manage. Suddenly, as they were boarding the barges and steamers and preparing to set off, Union pursuers hidden behind the dunes on the beach initiated a destructive fire into the mass of Confederates crowded onto the boats. Anderson was wounded in the left elbow as a result of that fire. Captain James M. Robertson's company was a particular nuisance to the exhausted and soaking wet rebels. His ranks were placed within 250 yards of the steamer *Time* and its crowded barge. Robertson thought the boat must have run aground, as it remained stationary for a full 15 minutes while his troops traded shots with the exposed rebels on the water. Anderson's soldiers were returning fire at very rapid pace, and bullets whistled over the dunes and through the scrub pines as exposed Confederates frantically sought relief from their precarious spot. From the center of the barge, Private Milner was loading and firing as fast as he could. He observed one soldier wade out to the barge and throw his rifle on the deck as they prepared to clamber aboard. The gun discharged and added to the rebel casualties when the shot passed through the ankle of a man standing only inches from the muzzle.

Milner recalled that the Confederates' "confusion and consternation" increased with the rate of Union fire. The receding tide had in fact left Milner's barge in perilously shallow water, and the added weight of the troops soon settled it on the bottom. They transferred quickly to the already overloaded steamer in an attempt to free the grounded barge, but even freed of the additional weight it remained stuck fast. One panicked soldier aboard the steamer raised a hatchet to cut the rope tying it to the grounded barge, but they changed their mind when someone on the barge aimed their rifle and threatened to shoot.⁴⁷

Union lead fired unabated toward the vessels despite the heavy return fire, and Captain Robertson was especially struck by the cool actions of Private John E. Gannon. Gannon concealed himself as best he could behind a small pine tree, from which he would "step out, rest his piece against the side of the tree, take deliberate aim, and

⁴⁶ *The War of the Rebellion*, 1st ser., vol. 6, 450.

⁴⁷ Milner, "Reminiscences"; and *The War of the Rebellion*, 1st ser., vol. 6, 451.

fire, almost every time remarking ‘There goes another of them down.’ Unless he was single-handedly responsible for a large number of casualties, Gannon was most likely in error regarding his accuracy. Nonetheless, return fire was directed at him with a vengeance. Robertson noted that while behind the tree loading, Gannon would frequently remark nonchalantly: “Well, my tree saved me that time.” When the battle was over, Robertson found seven musket balls buried in the little pine.⁴⁸

Aboard the ships and transports, a series of calamities kept the hapless rebel force stranded in the water as the battle for survival raged. Not only was the barge behind the *Time* grounded, but a hawser (tow cable) had come loose and become entangled in the *Neafie’s* screw (propeller). That steamer was now also dead in the water and unable to train its guns on the gathering Union troops. After some “ineffectual attempts to extricate the propeller” the ship and the large flat barge it was towing were tied on to the *Ewing*. Unfortunately, the weight proved too much and the *Ewing* would not respond to the helm with the additional burden. The crews made some kind of “a change in the manner of towing” to relieve that problem.⁴⁹

Meanwhile, probably during the process of changing the lines that tied them to the ship, a third potential disaster occurred when the barges being towed by the *Ewing* came entirely loose. General Anderson simply noted dryly in his report of the battle that “still further delay was occasioned in recovering them,” but it probably seemed an eternity to the troops enduring the Union fusillades. Finally, the wayward barges were once again made fast and the situation improved. The straining *Time* finally dislodged its barge and moved off. The hawser had been cut away from the *Neafie’s* propeller by then as well, and the beleaguered flotilla steamed for safety as quickly as possible.⁵⁰

The returning heroes were cheerfully greeted by “many ladies with refreshments for the hungry and bandages for the wounded” when they docked in Pensacola at around 1100 that morning. There is no record of the ships coming under fire, so it is likely that they must have sailed a circuitous route eastward along the bay that would have kept them as much as possible out of easy sight of the Union guns.⁵¹

Once safely ashore, the weary raiders assessed the results of their adventure. At times, it had come very near to disaster; yet, they termed it a great success, having in their view routed “Wilson’s pickpockets” and destroyed their camp and stores. While that was true, not a single artillery piece had been spiked, in spite of exaggerated newspaper accounts to the contrary. All of the federal batteries lay closer to Fort Pickens, beyond the Zouave camp, and the Union resistance coupled with approaching daylight had compelled Brigadier General Anderson to halt the attack before reaching any of the guns. Anderson had several times ordered a retreat, but a number

⁴⁸ *The War of the Rebellion*, 1st ser., vol. 6, 451.

⁴⁹ *The War of the Rebellion*, 1st ser., vol. 6, 462.

⁵⁰ *The War of the Rebellion*, 1st ser., vol. 6, 462.

⁵¹ Milner, “Reminiscences”; and *The War of the Rebellion*, 1st ser., vol. 6, 462.

of troops detailed to assist the surgeons either did not hear it or chose to continue to perform their duties.

As previously mentioned, those soldiers, along with the medical officers, had been captured. Only Surgeon Cary B. Gamble escaped when he found a small boat and set out across the bay with five wounded soldiers aboard. Gamble, a Virginian serving with the *1st Florida*, drew fire from the fort's big guns as well as from the rifles of Major Lewis G. Arnold's command. Arnold was hurrying in pursuit of the retreating Confederates when he observed Gamble's rowboat in the bay. He ordered his troops to fire "at great elevation" as he estimated the little boat was already about 1,200 yards away. Gamble and his wounded charges escaped further harm; however, others were less fortunate. Anderson reported 2 officers killed: Captain Bradford and Lieutenant Nelms, as were 4 noncommissioned officers, 11 privates, and 1 civilian volunteer. Two officers, 5 noncommissioned officers, and 32 privates were wounded. One wounded officer was Anderson's aide, Confederate Marine lieutenant Calvin L. Sayre, whose leg had been shattered above the knee. Sayre's friends carried him down the beach for a few miles before they were forced to abandon him to his fate. His leg was later amputated. In addition, 5 officers, 2 noncommissioned officers, and 23 privates were taken prisoner. They were eventually allowed to write to their friends, whereupon several who were first reported missing and feared dead were later discovered to be in enemy hands. Captain Jabez R. Rhodes of the *1st Georgia* received a letter from captured soldiers of his unit a few days after the battle requesting that he send their blankets, clothing, tobacco, and some money.⁵²

The results of Brigadier General Anderson's foray were notable not so much for what was achieved, but for the potential disaster that was avoided. Anderson and his troops had acquitted themselves well under the circumstances, but the entire operation was poorly planned and ill-conceived. Unfortunately, it could hardly have been otherwise under the circumstances, for there was no way for a useful daylight rehearsal to take place when any attempt to do so would have been in full view of Union observers. A large gathering of troops, especially at the wharf or attempting to board vessels would very quickly have drawn fire from the long-range Union guns. The element of surprise was the only way to preserve any chance of success, and thus the operation began under the cover of darkness. In that respect, the timing of the operation might have corresponded more closely to moon phases and the anticipated degree of darkness, yet the waxing moon on the night of 8 October was more than one-quarter full until it set about 2115 that night. There had been a new moon on the 4 October, and only two days earlier, the moonset was just after 1900. Had Anderson undertaken the raid a few days sooner, he could have begun the embarkation earlier in the evening, thus allowing for more time on the island without fear of being caught

⁵² *The War of the Rebellion*, 1st ser., vol. 6, 445, 462; Dr. J. H. Randolph to "My Dear Sir," 17 October 1861, Miscellaneous Manuscripts, Box 6, Folder 8, Pensacola Historical Society, FL; and Hewett et al., *Supplement to the Official Records of the Union and Confederate Armies*, pt. 1, vol. 1, 453, 459.

by the rising sun. Sunset occurred around 1730 on 6 October, with astronomical twilight ending just before 1900.⁵³

A combination of some advance preparation that might have hastened the loading of personnel that day, coupled with more knowledge of the ships' capacities and capabilities, might have allowed Anderson to set out for Santa Rosa a few hours sooner. One might also wonder whether it would have been useful to have at least some moonlight so as to avoid some of the confusion that took place. Studies of nighttime visibility have estimated that during a crescent moon phase, a platoon-size unit of troops silhouetted against the sky can be observed at a distance of approximately 180 meters, or nearly 200 yards, while a starlit sky decreases that distance to just 80 meters. It was critical that there be as little light as possible even though that meant an increased challenge of finding one's way and fighting in total darkness.⁵⁴

Perhaps just as vital a consideration as the moonlight conditions were the tides, whose highest and lowest marks can change significantly during the course of a lunar synodic period.⁵⁵ Although tidal changes in bays are typically less drastic because of their restricted openings to the ocean, the fall of the tide off Santa Rosa Island was significant enough to cause one of the barges to wedge fast on the bottom. Perhaps this concern was another factor that caused Anderson to return to his landing vessels before his troops could accomplish more, but in the event, he was still too late to prevent one of the barges going aground.

Bragg noted in a letter to his wife that it "was a desperate affair, in which success [would be] commended, a failure unpardonable."⁵⁶ That he was willing to risk such an unpardonable failure undoubtedly reflected a mixture of concern for the morale of his troops, his desire to punish his opponent, and his hopes that success would bring attention to himself. Naturally, Bragg was on tenterhooks throughout the night, peering anxiously through his glasses until the steamers moved off. Only later did Bragg begin to boast that the operation was "entirely successful." He also evaluated the troops' performance more critically, citing a propensity for straggling as the cause of many of the casualties. He derided the volunteers' lack of "order and regularity in retiring," noting that they had won the day, but then "could see no impropriety in scattering about and enjoying the walk home."⁵⁷ That lapse could be blamed in part on Anderson, whose responsibility as overall commander was to ensure such things

⁵³ "Moon Phase at 1100 p.m. October 8 and 2 a.m. October 9," Moonpage.com, accessed 9 February 2019; and "Pensacola, Florida Moonrise, Moonset, and Moon Phases, October 1861," TimeandDate.com, accessed 18 February 2019.

⁵⁴ Thomas F. Nichols and Theodore R. Powers, *Research Memorandum: Moonlight and Night Visibility* (Monterey, CA: U.S. Army Training Center Human Research Unit, 1964), 20.

⁵⁵ According to *Encyclopedia Britannica*, the term *synodic* refers to the time required for a body within the solar system, such as a planet, the moon, or an artificial Earth satellite, to return to the same or approximately the same position relative to the Sun as seen by an observer on the Earth. The moon's synodic period is the time between successive recurrences of the same phase or between full moon and full moon.

⁵⁶ McWhiney, *Braxton Bragg and Confederate Defeat, 193-95*; and *The War of the Rebellion*, 1st ser., vol. 6.

⁵⁷ *The War of the Rebellion*, 1st ser., vol. 6.; and McWhiney, *Braxton Bragg and Confederate Defeat, 193-95*.

did not happen, but ultimately the blame must be leveled at Bragg for sending novice troops on an amphibious operation with so little planning and preparation. The fact that most of Anderson's force was comprised of raw, untested recruits sent to undertake a difficult and dangerous mission in the dead of night somewhat mitigates his accountability, that of his subordinate commanders, and his soldiers. Battles naturally engender confusion—those conducted in darkness even more so—but the hurried nature of the operation was no one's fault but Bragg's. Moreover, Bragg seems to have ignored the fact that many of the losses stemmed from the accidents disabling the barges and the *Neafie* and the subsequent attempts to rescue them. A more vigorous pursuit by a stronger Union force would have added greatly to the Confederate losses, but that would have been a result of the flawed plan, not the actions of those who implemented it.

A more reasonable aspect of the plan was the route of the seaborne retreat. The geography of the bay meant that before daylight, the fleeing ships needed only to steam about half the distance across the bay toward Pensacola before rounding Fair Point, Florida, and turning eastward along the spit of mainland that was situated opposite the city between the island and the northern shore of the bay. That maneuver lessened the time that the flotilla might have been exposed to accurate Union fire. As for General Anderson's performance, Bragg noted in his report on 10 October that the South Carolinian "conducted the expedition with a zeal and gallantry worthy of high commendation." Commenting on Anderson's wound, Bragg wrote that "it is trusted we shall not long be deprived of his valuable services."⁵⁸

Back on Santa Rosa Island, Colonel Brown was less than pleased with the behavior of the Zouaves, though some had acquitted themselves well. Wilson seemed somewhat dejected for several days after the attack. Naturally, he and his troops were tense and uncomfortable in the aftermath of the fight, and they slept with their weapons for some time afterward. Wilson noted laconically on 14 October, "I have slept but very little this week. I don't feel well. I have got the diarrhea." He gloomily claimed to have a reward of \$5,000 on his head, dead or alive. "They are exhibiting my hair and head in Pensacola—the reward is already claimed," he wrote. "Everyone in Pensacola has my sword and uniform. . . . They say if I was to be taken alive, I was to be put in a cage and exhibited." More likely he would have suffered only the same sort of indignity faced by the captive Major Vogdes who "was recognized by a lady acquaintance on the street in Pensacola who smiled & clapped her hands, which he took in very good part."⁵⁹

Wilson was also concerned about the reputation of the Zouaves as well as his own military standing. Colonel Brown wrote little of the Zouaves' behavior in his initial report, noting only the instances where he specifically thought portions of the

⁵⁸ McWhiney, *Braxton Bragg and Confederate Defeat*, 193–95; and *The War of the Rebellion*, 1st ser., vol. 6, 458–59.

⁵⁹ McWhiney, *Braxton Bragg and Confederate Defeat*, 193–95; and *The War of the Rebellion*, 1st ser., vol. 6.

regiment did well. He was displeased with the New Yorkers overall, particularly their leaders, noting that “the regiment did not behave well . . . and . . . if properly officered, its conduct would have been different.” While he claimed that the soldiers were largely of good material, the officers were “in every respect unfit . . . and incapable.” Engineer Major Zealous B. Tower also thought the “Zouaves (excepting the pickets) proved of little account.”⁶⁰

Despite the loss of their camp and questionable behavior, the Zouaves and the other Union troops on the island felt victorious. Several Union reports put a good light on the situation and noted especially what writers termed the *precipitous flight of Anderson's party*. Others remarked on the volume of fire poured into the exposed troops crowded aboard the barges and steamers. Surely it must have seemed much like a shooting gallery to the Union troops posted safely behind the sand dunes, but the estimate of Confederate casualties far exceeded the actual number. Brigadier General Anderson made a similar error when he estimated the losses among Union forces as “50 or 60 killed and 100 wounded.” But his count was not so wildly exaggerated as that found in Alabama's *Montgomery Advertiser*, which reported in its 11 October edition that “all statements from our men who participated agree that they killed between 200 and 300 of the Yankees.” One rebel also approximated that mark when he wrote that “defunct Uncle Samuel lost killed, wounded, & prisoners 300 Men.”⁶¹

Actual Union losses were 14 dead, 29 wounded, and 24 captured—a casualty rate that was very close to that of the Confederates. The fallen of both sides were laid to rest on the very night after the battle, with the Zouaves' Catholic priest preaching the funeral oration over the dead: “All gallant fellows sent untimely to meet their God. The sand was filled in on the common grave, the last volley of farewell fired over friend and foe, and as taps sounded far over the waters, we took our leave and returned to camp about midnight.” As for the prisoners, it is entirely possible that a larger number of federals had been taken prisoner at first. But given the overcrowded situation on the Confederate transports, it is unlikely the yankees would have remained captives for very long.⁶²

A truce on the afternoon of 9 October allowed Bragg to bring back his dead and wounded. Bragg noted in his report that there were indications that some of the dead “were brutally murdered by the enemy. Of 13 dead bodies recovered 11 were shot through the head, having at the same time disabling wounds in the body. This fact

⁶⁰ McWhiney, *Braxton Bragg and Confederate Defeat*, 193–95; and *The War of the Rebellion*, 1st ser., vol. 6., 442.

⁶¹ McWhiney, *Braxton Bragg and Confederate Defeat*, 193–95; *The War of the Rebellion*, 1st ser., vol. 6., 462; and “The Fight on Santa Rosa Island,” *Montgomery (Alabama) Advertiser*, 11 October 1861, 1.

⁶² Hewett et al., *Supplement to the Official Records of the Union and Confederate Armies*, pt. 1, vol. 1, 447, 458; *The War of the Rebellion*, 1st ser., vol. 6, 442, 444, 462; Randolph to “My Dear Sir”; George F. Pearce, *Pensacola during the Civil War: A Thorn in the Side of the Confederacy* (Gainesville: University Press of Florida, 2000), 116–17; Shanahan letter; and Father S. J. Nash, “Father Nash,” *Catholic Historical Review* 2, no. 2 (July 1916): 191.

admits of but one inference.”⁶³ Many of the wounded were taken to the “Ladies’ Hospital,” a probable reference to the Catholic nuns who assisted at the Naval Hospital Pensacola. The Sisters of Charity from Mobile, Alabama, had arrived in the summer of 1861 at Bragg’s request to minister to the sick at the hospital. Wearing black habits and white sunbonnets, the sisters were at first an odd sight to some of the untutored soldiers. One nun recalled the odd reaction of a group of patients seeing the sisters for the first time: “When we went to the wards they covered their heads with blankets and nothing could induce them to uncover them.”⁶⁴ The soldiers emerged after a few days, and thenceforth the reputation of the nuns improved along with the conditions at the hospital. By the time the wounded arrived from Santa Rosa Island that fall, all agreed that the hospital and nursing care was first-rate. Captain Rhodes reported his men receiving the finest care.

*The ladies themselves, both day and night, watch by the bedside and couches, encouraging them with kind and sympathetic words, furnishing and administering everything that is needed for their comfort, and with their own tender hands assisting and dressing the wounds of our brave soldiers.*⁶⁵

The soldiers of the 5th Georgia suffered some of the heaviest loss, especially among the volunteers of Company D, which saw five dead and four wounded. Lieutenant James A. Shivers of that company later had the honor of escorting the body of Lieutenant Nelms to his father’s home in Griffin, Georgia. Bragg honored Nelms and Captain Bradford by rechristening the steamers *Time* and *Ewing* in their names. Company D of the combined Georgia and Mississippi Regiments suffered comparable losses, but most units reported relatively little loss. While most companies contributed only a handful of people, First Lieutenant M. M. Smith, commanding Company G of the 10th Regiment Mississippi Volunteer Infantry, sent 41 out of 59 troops in his unit on the expedition. Only one sergeant was wounded, but Smith also meticulously reported one gun and bayonet lost, five canteens and three haversacks missing, one musket damaged, and three bayonets and a screwdriver lost. Undoubtedly like most commanders, Smith also had to report that “the ammunition on hand is mostly all damaged from getting wet.”⁶⁶

No further action took place at Pensacola after a January 1862 artillery duel that saw the Confederates defeated. Revisiting the events up to that time, it is easy to see that Bragg was correct in trying to convince his superiors that there was little military value in holding the place. The superior number of Union forces, their mobility,

⁶³ *The War of the Rebellion*, 1st ser., vol. 1, 459.

⁶⁴ Oscar H. Lipscomb, “The Administration of John Quinland, Second Bishop of Mobile, 1859–1883,” *Records of the American Catholic Historical Society of Philadelphia* 78, no. 1 (March 1967): 50–52.

⁶⁵ Hewett et al., *Supplement to the Official Records of the Union and Confederate Armies*, pt. 1, vol. 1, 454.

⁶⁶ Hewett et al., *Supplement to the Official Records of the Union and Confederate Armies*, pt. 1, vol. 1, 413–18, 459–60; and Report of W. W. Smith to Colonel R. A. Smith, 10 October 1861, Miscellaneous Manuscripts, Box 3, Folder 6, Pensacola Historical Society, FL.

and their firepower kept the important bay closed and rendered it and the navy yard useless to the Confederates. Its destruction and abandonment in the spring of 1862 definitively ended Southern claims to the facilities.

In all of the contests between opposing forces until that time, one must inevitably deduce that the Union Army and Navy came out ahead. Two Union raids succeeded completely in their goals with little loss to the raiders, and Confederate forces fared the worst in two extensive artillery duels. Of Brigadier General Anderson's risky amphibious raid, one may conclude little more than that it was at best a drawn contest and that it owed the fact that it was not a total disaster only to Confederate good fortune and not to adequate preparation.

The need to keep the raid a surprise meant that there was a complete lack of training for an amphibious operation that failed to properly prepare the ground forces for the terrain features and the requirements for rapid embarkation/debarkation. The lack of any rehearsals that would have familiarized personnel with the operational details and revealed planning shortfalls was an unfortunate counterpart to the secretive nature of the plan. While the absence of any clear military doctrine on amphibious operations at that time, along with the need for secrecy might excuse that lapse, it surely would have been possible to at least identify the members of the party sooner and begin a physical training regimen that might have better equipped them to deal with the fatiguing march through the surf and sands, as well as the rigors of nighttime operations.

A more glaring lapse stems from the apparent failure to obtain adequate intelligence pertaining to the hydrographic features of the bay off Santa Rosa Island, the geographic characteristics of the terrain on the island, and the precise disposition of Union forces and gun positions. The long overdue exploration by two of Bragg's staff officers was entirely insufficient to gather the needed information. Other factors that mitigated Confederate success were the inadequate knowledge of tonnage capabilities of the craft involved and the characteristics of loaded vessels that seems to indicate a lack of coordination with more knowledgeable naval personnel. The limited amount time allotted to the operation and the danger that daylight would reveal the presence of the Confederate naval force and subject it to concentrated artillery fire was another significant drawback to the operation. It allowed insufficient leeway for any delays, and in the end, the full goals of the little invasion were not realized in part because the raiders simply ran out of time.

It must be said, however, that the rapid Union response made the capture and destruction of their artillery positions highly unlikely. Again, that harkens back to the inadequate intelligence and unreasonable expectations placed on the attackers. Surely, they must have realized that all the gun positions lay between the Zouave camp and the fort, and they would have also realized that the alarm would have been raised too soon to push on much past the New Yorkers' campground, which was placed on the island precisely to protect the fort and guns from a land-based attack from that direction. Perhaps, then, one must add the common, early war trend of underestimat-

ing a foe's capabilities to the already flawed Confederate plans, but the quick response from the defenders put the lie to that erroneous expectation about Union resolve. It is true that the Zouaves fled rather precipitously in the initial confusion, but a more vigorous federal response followed quickly. By that point, Anderson had already run up against the clock and was gathering his forces for the withdrawal to their boats. The complications of nighttime operations also contributed much to disorganization of the attacking forces and their failure to fully execute their mission, but that too—as with physical preparation—might have been addressed in part by training and practice conducted inland and away from any prying Union eyes.

In conclusion, Bragg's risk/benefit analysis was thrown off balance by his overwhelming desire to take some action in response to the Union raids that would preserve Confederate honor and the morale of his troops, by his desire for action and personal recognition, by his overestimation of the abilities of his untested soldiers and their leaders, and finally, by his underestimation of the strength of an immediate Union response. Anderson's raid definitely put a pin in Wilson's balloon, and much was made of that by the rebel press, but the tangible achievements were far too meager to justify the risk and the ultimate cost of the affair. Bragg might have been better off taking a page from the Union playbook and settling for a series of small victories with scaled-down raids that entailed minimal risk. Instead, his was an attack that should never have taken place as designed, and one that came much too close to catastrophe for the raiders.

CHAPTER SEVEN

Korea, 1871

The U.S. Navy and Marine Corps in Great Power Competition

Benjamin Armstrong

Operations in the littorals of the world and the amphibious raids and assaults that make up key elements of American naval history are often studied through the examples of wartime operations. From the landing at Nassau, Bahamas, in 1776 through Vera Cruz in 1847 to the multitude of operations in the American Civil War, this is just as true of the nineteenth century as it is in the study of the island hopping seen in the middle of the twentieth century. However, there is a second list of amphibious operations worth some attention: past missions of the U.S. Navy and Marine Corps that took place during eras that were otherwise considered peacetime. From the landings at Kuala Batu, Indonesia, in the 1830s, to the landings in the Banana Wars of the early twentieth century, these operations mixed military tactics with diplomacy and included engagements with both state and nonstate actors.¹ They demonstrate that the role of amphibious operations extends beyond wartime, to include the methods used by the U.S. Navy and Marine Corps during peacetime and in how the United States faced the struggles between great powers. Examining the Korea expedition of 1871, we can see the interplay between diplomatic and military objectives during peacetime amphibious operations. This study can help us better

¹ For the purposes of this chapter's discussion, the term *nonstate actor* refers to nonsovereign entities—people or organizations—that exercise significant economic, political, or social power and influence at a national and potentially an international level.

understand the wider role of amphibious missions beyond war and contemplate how these missions fit into the dynamics of great power competition.

The year 1866 represents a complicated and challenging time for relations between the kingdom of Korea with the Western world.² Korea had worked for centuries to maintain a closed society. Often caught in the middle between the imperial efforts of East Asia's dominant powers, China and Japan, the Koreans cultivated their reputation as the "Hermit Kingdom" and endeavored to keep Westerners at bay. With the European penetration of Chinese coastal cities for economic gain toward the middle of the nineteenth century and the conflicts and wars that followed, as well as the American opening of Japan in 1854, Koreans appeared particularly sensitive to Western encroachment as the century moved into its second half.

In January 1866, a Russian warship arrived on the Korean coast. Six years earlier, China had ceded control of Manchuria to Russia in the Convention of Peking and imperial appetites from St. Petersburg had shifted farther south. However, after arriving on the coast and attempting to initiate a diplomatic negotiation, while simultaneously threatening an invasion across the border from their new territory in Manchuria, the Korean government rebuffed the Russians' advances. The Koreans hid behind their nominal status as a vassal state of the Chinese Empire, which required the Russians to have permission from Peking before pursuing any ambitions on the peninsula. The Russians sailed away.³

The arrival of the Russian ships, however, stoked growing fears of Western encroachment and rising concerns about the growth of Christianity and the power of illicit Catholic missionaries in the kingdom. The government in Seoul ordered that local officials round up missionaries and punish them or even execute them. Thousands of Korean Christians were driven from their homes and many were killed, including seven French Jesuit missionaries who were secretly proselytizing on the peninsula. From the Korean perspective, they were protecting their culture and their religion, which even some Chinese considered the last bastion of true Confucian belief.⁴ From the French perspective, the executions raised a pair of issues. First, France had to defend its citizens around the world. Second, Russian designs on Korea played into the continuing great power competition between the Russians, the British, and French, what some scholars have come to describe using Rudyard Kipling's term "The

² Ancient Korea was divided into three kingdoms until 688 CE—Koguryō (founded in 37 BCE), Silla (founded in 57 BCE), and Paekche (founded in 18 BCE).

³ William Elliot Griffis, *Corea: The Hermit Nation*, 6th ed. (New York: Charles Scribners and Sons, 1902), 373–74.

⁴ Gordon H. Chang, "Whose 'Barbarism'? Whose 'Treachery'? Race and Civilization in the Unknown United States-Korea War of 1871," *Journal of American History* 89, no. 4 (March 2003): 1338, <https://doi.org/10.2307/3092545>.

Great Game.”⁵ It had only been a decade since the end of the Crimean War (1853–56), and competition between the European powers for economic and political opportunities had spread through Asia. In late 1866, the French sent a pair of expeditions to the coast of Korea; the first to conduct reconnaissance and survey the shoreline and the second with the potential for combat operations. After landing a force of 600 to exact retribution for the Jesuits, the French were defeated in a battle with Korean defensive positions, and on 17 November 1866, they were forced to reembark their fleet and withdraw.⁶

In the midst of this great power maneuvering for the potential opening of Korea, Americans inserted themselves into events in the Western Pacific. In June 1866, the American merchant vessel *Surprise* was caught in a storm and wrecked on the west coast of Korea. Recovered by local fishermen and villagers, the surviving crew were turned over to the government and cared for with relative kindness. Transported north to the border on horseback, the Koreans turned them over to Chinese officials who arranged for their return to the United States. This first contact was benign, even friendly as the Americans were well cared for. However, in August 1866, another American vessel, the schooner *General Sherman*, left port in China bound for Korea with trade goods and a polyglot crew of American, European, Malay, and Chinese sailors to open trade with the Hermit Kingdom on their own.⁷

What exactly happened next is unclear in the historical record, but the Korean government claimed the *General Sherman*'s crew threatened Korean safety. The *General Sherman* had sailed up the Taedong River in the northwest of the country in an attempt to open up trade and find a market for its goods. They arrived at the height of public fear and unrest about the work of Western missionaries and the threat of the Russians, while at the same time the first French warships landed to begin reconnaissance operations. After heading upriver in Korean waters, the *General Sherman* ran up on a sandbar and was stranded. Unable to comply with local instructions to immediately leave Korean waters, an altercation developed between the crew and local citizens concerned about Western encroachment. According to the Koreans, the crew was killed in the fighting that resulted and the ship was destroyed at the hands of local officials without the involvement of the government in Seoul. This narrative differed from initial reports, which suggested that the Korean court had ordered the execution of the crew and destruction of the ship. American

⁵ “The Great Game” was first attributed to British intelligence officer Arthur Conolly but was popularized by Rudyard Kipling in his book *Kim* (1901), which plays on the idea of the power struggles between great nations as a game.

⁶ Daniel C. Kane, “Bellonet and Roze: Overzealous Servants of Empire and the 1866 French Attack on Korea,” *Korean Studies* 23 (1999): <https://doi.org/10.1353/ks.1999.0011>.

⁷ “S. Wells Williams to William H Seward, 24 October 1866,” in *Papers Relating to the Foreign Affairs, Accompanying the Annual Message of the President to the Second Session of the Fortieth Congress*, 1322 H.exdoc.1/2 (Washington, DC: Government Printing Office, 1868), 414–15; and Charles Oscar Paullin, “The American Navy in the Orient in Recent Years,” *U.S. Naval Institute Proceedings* 37, no. 4 (December 1911): 1145.

diplomats and naval commanders found no reason to disbelieve the official story.⁸

The *Surprise* and *General Sherman* incidents led American diplomats to an increased interest in Korea. First, there was the obvious desire to open new markets and, as in the case with U.S. Navy commodore Matthew C. Perry's mission to Japan in 1853–54, the opportunity for Americans to be the first with access to those markets. However, as with the Perry expedition, the wreck of *Surprise* raised American desire for a treaty that would lay out official treatment of shipwrecked or endangered sailors.⁹ The crew of *Surprise* had been spared and treated well, but rumors continued to circle that Koreans would kill Westerners on sight, likely based on the continuing unrest related to Christian missionary influence. Finally, for diplomats in the region, the *General Sherman* incident had not come to a clean or conclusive end. Reports continued to circulate of survivors and prisoners from the altercation being imprisoned by the Koreans.¹⁰

In 1867, Captain Robert W. Shufeldt sailed with the USS *Wachusett* (1861) to determine the fate of the *General Sherman* and its crew, but poor weather and reports of treacherous unmarked shoals kept him from reaching the Taedong River. Shufeldt's contact with Korean diplomats left much to be desired as well. Despite his polite and formal approach, the officials who came to see him actively stonewalled him.¹¹ While the mission was a relative failure, it did spark in Shufeldt an interest in Korea that would have a lasting impact on American diplomacy in the Pacific. In April 1868, the USS *Shenandoah* (1862) made contact with the Koreans and again officially inquired about the *General Sherman* and its fate. The Koreans were polite, but adamant that the Americans should leave. They offered an official explanation of the *General Sherman*'s attack on the Korean people and the fate of the crew, and Commander John C. Febiger departed convinced that “none of the crew or passengers of the schooner were living.”¹²

With inconclusive naval visits to the coast of Korea through the close of the 1860s, Rear Admiral Stephen C. Rowan, in command of the U.S. Asiatic Squadron, suggested to President Andrew Johnson's administration that it was time to organize

⁸ “H. H. Bell to Gideon Welles, 16 February 1867,” in *Report of the Secretary of the Navy, 1867, with an Appendix Containing Bureau Reports, etc.*, 1327 H.exdoc.1/17 (Washington, DC: Government Printing Office, 1867), 45–46.

⁹ Thomas Duvernay, “The Shinmiyangyo,” *Transactions of the Royal Asiatic Society, Korea Branch* 89 (2014): 2–3.

¹⁰ “S. Wells Williams to William H Seward, 31 July 1868, and S. Wells Williams to Krinck Kung, 2 March 1868,” in *Papers Relating to the Foreign Affairs, Accompanying the Annual Message of the President to the Third Session of the Fortieth Congress*, 1364 H exdoc.1/2 (Washington, DC: Government Printing Office, 1869), 544–46.

¹¹ “R.W. Schufeldt to H. H. Bell, 30 January 1867,” in *Report of the Secretary of the Navy, 1867, with an Appendix Containing Bureau Reports, etc.*, 46–49.

¹² Gideon Welles, *Report of the Secretary of the Navy, 1868, with an Appendix Containing Bureau Reports, etc.*, 1369 H.exdoc. 1/16 (Washington, DC: Government Printing Office, 1868), xiv; and Paullin, “The American Navy in the Orient in Recent Years,” 1146–47.

and plan a concerted effort in naval diplomacy to open Korea and negotiate a treaty modeled after Perry's efforts with Japan. The U.S. Navy promoted John A. Rodgers to rear admiral and assigned him as Rowan's relief in December 1869, and he continued to support the idea of a Perry-style expedition.¹³ The government in Washington, DC, agreed. In early 1870, Secretary of State Hamilton Fish instructed Frederick F. Low, the American minister in Beijing (Peking), China, to take the lead on the effort. In November, Rodgers arrived in Shanghai and accompanied George F. Seward, the city's American consul general, to Beijing to meet with Low and begin planning the operations. The three men agreed that Low would lay the groundwork with the Chinese to gain their acquiescence to the effort, and Rodgers began research efforts to gather intelligence about the Korean court, culture, and coastline. Rodgers would collect his ships from their distributed missions across the Pacific theater and begin training. One of Rodgers' warships planned to embark Low during the first half of May 1871 before the squadron rendezvoused for the mission into Korean waters. Low wrote to the State Department, "I am not sanguine of favorable results," but he still believed the goal was "worthy of the trial."¹⁴

Rear Admiral Rodgers sent orders to his ships to gather in Japanese waters and prepare for the expedition. In the aftermath of 1854's Treaty of Kanagawa ending Japan's seclusion and the follow-on negotiation of a most-favored-nation trade treaty led by Townsend Harris, Japan had become the central resupply point and rendezvous for ships of the U.S. Navy in the region. The expedition was planned to include the squadron's flagship, the steam screw frigate USS *Colorado* (1856), as well as the new steam screw sloops-of-war USS *Benicia* (1868) and USS *Alaska* (1868), and the gunboats USS *Monocacy* (1864) and USS *Palos* (1865). In April, orders went out to the captains of the ships to assemble at Nagasaki.¹⁵

Low's effort at coordinating with the Chinese Foreign Ministry resulted in Beijing disavowing any involvement in or coordination with the expedition. Despite the recognized status of Korea as a tributary kingdom, the Chinese insisted that when it came to internal affairs and foreign policy, the Koreans were wholly independent. Low had hoped the Chinese would agree to help and that they would open the initial channels of written dialogue that would lay groundwork for his arrival on the Korean coast. The officials of the foreign ministry told Low that they passed along his initial letter to the Korean court, but "it is impossible to determine now whether the Korean

¹³ Paullin, "American Navy in the Orient in Recent Years," 1147.

¹⁴ "Frederick Low to Hamilton Fish, 22 November 1870," in *Papers Relating to the Foreign Relations of the United States, Transmitted to Congress with the Annual Message of the President, December 5, 1870*, 1502 Hexdoc.1/3 (Washington, DC: Government Printing Office, 1870), 73-74, hereafter Low to Fish, FRUS 1870.

¹⁵ K. Jack Bauer, "The Korean Expedition of 1871," U.S. Naval Institute *Proceedings* 74, no. 2 (February 1948): 197.



FIGURE 17

Frederick F. Low, U.S. minister to China (right), Edward Drew, and interpreters
on board USS *Colorado* (1856–85), off Korea in May–June 1871.

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[sic] authorities will return an answer.”¹⁶ From there, they disavowed any further assistance. Low suspected that the Chinese had felt the pressure of French anger about the execution of the Jesuits, and French efforts to hold the Chinese responsible, and had decided to place a layer of diplomatic independence between themselves and Seoul (figure 17).¹⁷

As they planned, Low met Rodgers at Shanghai in early May 1871. He brought with him his legation secretary Edward B. Drew, Chinese translators, and, as a sign of good will, five Korean sailors shipwrecked on the coast of China. Rodgers took a few extra days to conduct business in the port, including working out the details of re-

¹⁶ “Frederick Low to Hamilton Fish, 3 April 1871,” *Papers Relating to the Foreign Relations of the United States, Transmitted to Congress with the Annual Message of the President, December 4, 1871*, 1502 Hexdoc.1/3 (Washington, DC: Government Printing Office, 1871), 112, hereafter Low to Fish, FRUS 1871.

¹⁷ Low to Fish, FRUS 1871, 111–12; and “Foreign Office to Frederick Low, 28 March 1871,” FRUS 1871, 112.

pairs to the gunboat USS *Ashuelot* (1865) in a local shipyard. The mission's leaders left Shanghai on 8 May on board the *Colorado*, with *Monocacy* and *Palos* in company. Four days later, they arrived in the harbor at Nagasaki and discovered *Alaska* and *Benicia* waiting for them.¹⁸ The storeship USS *Idaho* (1864) joined the squadron to provide logistical support to the mission. Sailors and Marines from the ships of the squadron began training exercises at Nagasaki, and practiced "battalion and artillery drills."¹⁹ While the commanders had not told the officers and crews of their destination, many were perceptive enough to determine that Korea was the likely target and that landing operations were a possibility. Rumors spread among the sailors about what they would face, including the exaggerated idea that "the natives were reputed to be veritable giants, with untamable ferocity and armed with weapons of the latest invention and manufacture."²⁰ Others, including Rear Admiral Rodgers, held more derogatory views of Koreans and Asians in general with racially driven expectations of weakness and treachery. This combined with a general lack of cultural understanding regarding Korea, and Rodgers and Low's reliance on Chinese translators and intermediaries, to color American understanding of the Koreans.²¹

During the voyage to the rendezvous location, Low and Rodgers discussed their plans. Rodgers collected everything he could find on the coast and the hydrography of the Korean harbors, which was very little. Low suspected that the expedition would be far more difficult than what Perry had experienced in 1853 and 1854. His research into what to expect from Korea indicated not only a closed society, but an actively anti-Western population that suffered under a brutal and authoritative government. Previous efforts by the Russians and French, and a German expedition with the cooperation of the Japanese earlier in the year, had all met with failure. Low wrote back to the State Department that he fully expected the Koreans to resort to "a display of force" if they deemed it necessary. He assured Washington of his plan to make sure any use of American arms would be limited and proportional, but the letter is clear that he expected the expedition would eventually be required to use force.²²

With the training exercises complete, Lieutenant Commander Winfield Scott Schley, executive officer of the *Benicia*, assessed that "it is doubtful if there was a more efficient, better-trained, or more capable squadron afloat." The American warships sailed from Japan on 16 May 1871.²³ The ships split to sail either individually or in pairs, and rendezvoused off the coast of Korea near the Ferrières Islands, South Korea, where they anchored to wait for a dense coastal fog layer to burn off. Through the remaining fog banks, the squadron picked its way closer to the coast. On 24 May,

¹⁸ "Frederick Low to Hamilton Fish, 13 May 1871," FRUS 1871, 115.

¹⁹ R. M. G. Brown, "The Korean Expedition of '71," *The United Service: A Monthly Review of Naval and Military Affairs* 1, no. 1 (January 1902): 75.

²⁰ Brown, "The Korean Expedition of '71," 76.

²¹ Chang, "Whose 'Barbarism?'," 1339–40.

²² "Frederick Low to Hamilton Fish, 13 May 1871," FRUS 1871, 115.

²³ Bauer, "The Korean Expedition of 1871," 198–99.

Admiral Rodgers dispatched a surveying party with four steam launches and the gunboat *Palos* under the command of Commander H. C. Blake to find their way through the shallows and narrow channels. After picking their way, scouted by the boats as they sounded and marked the path, the American warships anchored on 30 May near the harbor known today as Inchon.²⁴

As the ships settled into their anchorages, a junk approached the Americans and indicated they had a party aboard to open communication. The Korean delegation was invited aboard the flagship *Colorado* and delivered letters from the local government officials. Minister Low assured them of the American squadron's peaceful intentions and sent a message ashore announcing the U.S. expedition's desire to negotiate a treaty with the Kingdom of Korea. When another supposedly more senior group of officials reached the squadron on 31 May, Minister Low remained below decks until the naval officers could determine the titles or diplomatic ranks of the visitors. Following a strategy similar to Commodore Perry's in Japan, Low determined that the officials were of low rank and refused to meet with them. Instead, he sent his secretary Edward Drew and his translators to talk with them. When Drew determined that the Koreans had not been entrusted with any power to negotiate, the Americans sent them away.²⁵

Drew and the naval officers explained to the officials that they intended to conduct peaceful operations, but they also explained that they would defend themselves if fired on. What is unclear from either Low's correspondence with the secretary of state, or Rodgers's correspondence with the secretary of the Navy, is whether they actually explained their intention to continue surveying operations. While at anchor off Ganghwa Island, off the west coast of South Korea, Rodgers briefed Commander Blake again, entrusting him with another surveying mission of the river separating the island from the mainland with both *Palos* and *Monocacy* and a flotilla of the squadron's steam launches. Low related that Blake's orders covered the possibility of conflict, telling him that in case he took fire "to reply by force, and destroy, if possible, the places and people from whom the attack came." Rodgers even authorized Blake to land forces ashore, if it became necessary.²⁶

With his instructions and his force gathered from the ships of the squadron, Blake's flotilla began its surveying expedition around noon on 1 June (figure 18). The gunboats and launches slowly worked their way up the east side of Ganghwa Island, sounding as they went and marking their notes as they worked to find the channel through the muddy shallows. They worked most of the afternoon without interruption until they approached a fort on the north side of the island. There, as the boats

²⁴ "Rodgers to Robeson, 3 June 1871," *Report of the Secretary of the Navy and of the Postmaster General, Being Part of the Message and Documents Communicated to the Two Houses of Congress at the Beginning of the Second Session of the Forty-Second Congress* (Washington DC: Government Printing Office, 1871), 275, hereafter *Report of the Secretary of the Navy, 1871*.

²⁵ "Rodgers to Robeson, 3 June 1871," *Report of the Secretary of the Navy, 1871*, 276.

²⁶ "Low to Fish, 2 June 1871," FRUS 1871, Document 33, 121.



FIGURE 18
Officers of the USS *Alaska* (1868-83) off Korea in June 1871.
In the center stands the ship's commanding officer, Cdr Homer C. Blake.
Naval History and Heritage Command

came within range of Korean batteries, the local defensive forces opened fire on the Americans.²⁷

Rodgers had been following Perry's example, much as Low had in refusing to meet with the low-ranking diplomatic emissaries. In Japan, the Americans had put boats over the side and began surveying Tokyo Bay while Perry conducted his negotiations. American naval officers saw surveying as an important peacetime mission, one that would help make the waters of Asia safe for Western sailors as they exploited the seas for growing global trade. "Savage" coasts could be made safer not only through naval and diplomatic power, but also through the judicious use of science.²⁸ The Koreans saw the situation differently. As the swarm of boats worked its way along the beaches and up the Salée River, local officials and military commanders surely recognized the effort as a violation of Korean sovereignty. The Americans moved

²⁷ "Blake to Rodgers, 2 June 1871," *Report of the Secretary of the Navy, 1871*, 277-79.

²⁸ Jason W. Smith, *To Master the Boundless Sea: The U.S. Navy, the Maritime Environment, and the Cartography of Empire* (Chapel Hill: University of North Carolina Press, 2018), 6-13.

into Korean territory without permission, taking measurements and clearly gathering intelligence. What the American naval officers viewed as an effort in the name of science and civilization, Koreans saw as an attack on their legitimacy and potentially their national survival.

From their 32-pound heavy guns and a number of smaller artillery pieces, the Koreans poured a volley of fire at the American launches. *Palos* and *Monocacy* immediately returned fire. Caught in a swift-moving current and unable to slow effectively, the American flotilla passed by the main fort and rounded a bend in the river where they were able to come to anchor. The gunboats continued to fire into the Korean main battery and the smaller firing positions until they were silenced and lookouts reported they had been abandoned. After passing fresh water to the steam launches to top off their condensers to make full power, Blake led his unit back up the river and past the forts again. The Korean emplacements remained eerily silent as the American boats passed. The flotilla returned to the main anchorage where *Colorado*, *Benicia*, and *Alaska* had remained. Two minor injuries—one sailor shot in the shoulder by small arms and another injured by the recoil of a gunboat's howitzer—were the only casualties. None of the launches or gunboats had received any damage worth mentioning in the reports.²⁹

Rodgers and Low called together the ship's commanders and began planning a punitive expedition to demonstrate American resolve and to ensure the forts could no longer threaten the safety of approaching ships (figure 19). Low delivered an ultimatum to the Koreans: unless they apologized and began treaty negotiations by 10 June, the Americans would attack.³⁰ Meanwhile, lookouts reported that Korean troop movements were reinforcing the garrisons ashore. Both sides continued to posture, but the negotiations remained stalemated. Captain McLane Tilton, the senior U.S. Marine in the squadron who took command of the ships' detachments, wrote to his wife, "you may imagine it is with not a great pleasure I anticipate landing with the small force we have" and ominously noted that the "savages" were known to fight to the death.³¹

As the deadline for Minister Low's ultimatum passed, the American forces launched their amphibious attack on the island. However, Tilton's worries came to naught. The Marines loaded into boats and steam launches hauled out from the ships of the squadron, accompanied by a naval landing unit made up of sailors. The force included 105 Marines and 546 sailors in the 22 boats of the squadron, bringing with them seven howitzers organized into two artillery batteries. The guns of *Palos* and *Monocacy*, which had a shallow enough draft to stay within range of the Korean forts, offered fire support. At 1000 in the morning on 10 June, the gunboats and steam

²⁹ "Blake to Rodgers, 2 June 1871," *Report of the Secretary of the Navy, 1871*, 277–79.

³⁰ "Rodgers to Robeson, 3 June 1871," *Report of the Secretary of the Navy, 1871*, 275–77.

³¹ "McLane Tilton to Nan Tilton, 16 May 1871," in Carolyn A. Tyson, ed., *Marine Amphibious Landing in Korea, 1871* (Washington DC: Historical Branch, G-3 Division, Headquarters Marine Corps, 1966), 6–9.



FIGURE 19

Council of war on board the USS *Colorado* off Korea in June 1871. RAdm John A. Rodgers, commanding the Asiatic Fleet, stands to the right of the table, leaning on the chart.

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launches pulled the landing craft into position for their final push onto the beach. *Monocacy* took a Korean battery the Americans had nicknamed the “Marine Redoubt” under fire, and the Koreans returned fire, though with little effect.³²

Despite the worries of the planners, the landing force executed the plan with little formal resistance on the beach. The most challenging part of the American landing was the hydrography and geography. The boats landed in knee-deep mud and the initial waves of Marines and sailors struggled through it, carrying their weapons and equipment and muscling their artillery pieces to solid ground. Despite their vulnerability as they crossed the mudflats, the Koreans did nothing to contest the landing. When *Palos* pulled away from the beach after towing boats toward shore, the challenges of the marine environment struck again as the gunboat ran aground on a rock that the surveying parties had not charted, remaining stuck there until 2100 that evening,

³² “Rodgers to Robeson, 3 June 1871,” *Report of the Secretary of the Navy, 1871*, 275–77; and Bauer, “The Korean Expedition of 1871,” 200.

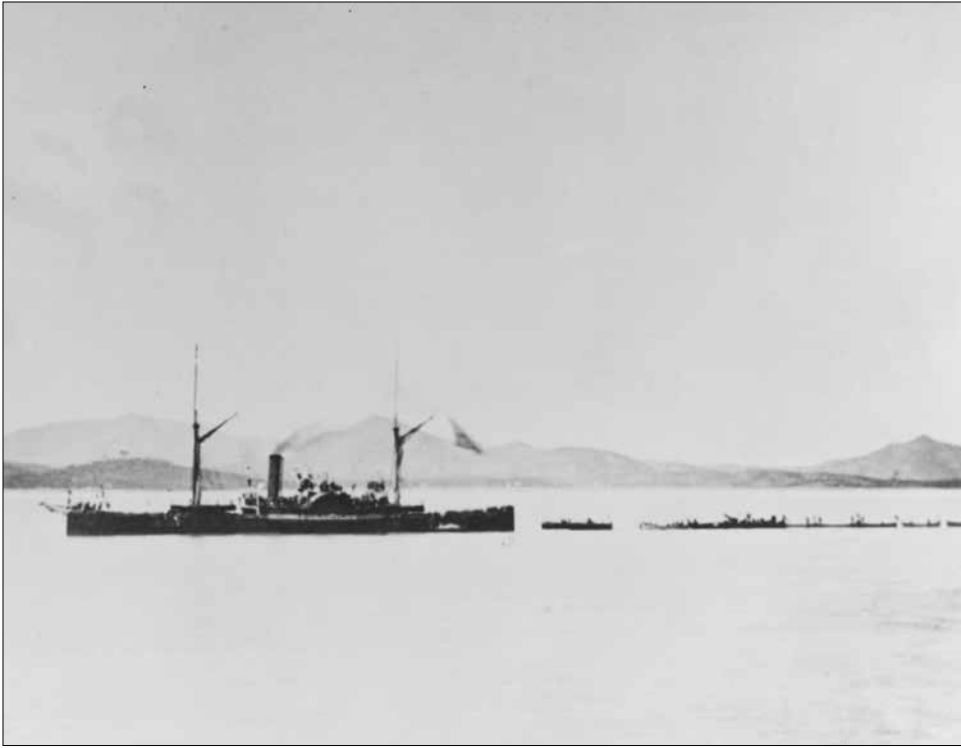


FIGURE 20
USS *Monocacy* tows landing boats in the Han River
during the Korean expedition of May–June 1871.
Naval History and Heritage Command

when the tide rose enough to free the ship (figure 20). The impact damaged several steel bottom plates, and despite successful damage control efforts, the ship was in no condition to contribute to the rest of the operation. Instead, the crew anchored the ship and guarded the boats and launches in preparation for a potential withdrawal.³³

Once ashore, the landing force advanced on the Marine Redoubt. After scaling the 12-foot-high walls, they discovered the emplacement was empty. The Koreans had fled after the initial bombardment by *Monocacy*. The Marines and sailors discovered a floating battery of 30 small guns of mixed caliber, the vast majority being small-bore brass breechloaders. They jettisoned the lighter guns into the river, and the heavier pieces were spiked to render them inoperable in the future. Sailors hacked at the walls of the fort, knocking down several portions, and they burned the supplies and provisions inside. By the time this work was done, the Americans had used most of their afternoon and early evening daylight. Rather than proceeding further, the officers decided to encamp for the night and resume the expedition with attacks on the

³³ Bauer, “The Korean Expedition of 1871,” 200–1.

larger forts the next morning. During the night, a unit of Marines set up an advanced position with one howitzer and Tilton deployed pickets to protect the encampment. Korean forces attacked the advanced party around midnight with distant fire from small arms. With a few rounds from the artillery piece, the firing stopped and the Marines reported that the enemy dispersed.³⁴

In the morning, sailors finished final destruction of the Marine Redoubt by burning the wooden structures inside and the main body of the expedition advanced on one of the larger Korean forts, which they had named Fort Monocacy. The gunboat *Monocacy* moved upriver and began to fire into the fort as it had with the small emplacement the day before. Marines deployed from the front of the main force and conducted a reconnaissance of the fort's walls and surrounding area, finding them deathly quiet. The fort was a square, with walls made of stone, and positioned on high ground in "a strong position." However, as with the Marine Redoubt, it was entirely empty. The Americans swept through it quickly and then marched for the next objective.³⁵

Monocacy kept pace with the advancing landing force, moving forward toward the largest Korean fort along the river. Again, they fired into the Korean position to suppress and reduce the defenses for the advancing sailors and Marines. Marine scouts who were moving along the flank of the main body spotted what appeared to be a large body of Korean fighters on the landward side of the force. Commander Lewis A. Kimberly, in command of the landing force, realized that the flanking Koreans would likely be able to swing around behind his force once they approached their next objective. He dispatched Lieutenant Commander William K. Wheeler with two companies of infantry and five of the artillery pieces to take up a blocking position on high ground behind the main body to hold a rearguard position. During the remainder of the operation, Wheeler's unit engaged the Koreans from a distance and held them back from a counterattack.³⁶

Kimberly realized, however, that Wheeler's small blocking force would not hold out forever. He ordered a "rapid and exhausting" march across the remaining hills and valleys to approach the largest and final fort the Americans had selected for destruction. As the force crested the last hill, and regrouped at its foot, the officers decided there was no time to lose and ordered a "rapid and vigorous charge." The Koreans, perfectly aware that the Americans were coming, were ready and kept up a constant fire into the charging infantry despite having been under fire from *Monocacy*. Lieutenant Hugh W. McKee led the charge and was the first American up and over the parapet. Wounded twice as he climbed into the fort, he later died on one of the squadron's ships while being treated by a surgeon. Following behind him, Lieutenant

³⁴ "Rodgers to Robeson, 5 July 1871," *Report of the Secretary of the Navy, 1871*, 280–81.

³⁵ "Rodgers to Robeson, 5 July 1871," *Report of the Secretary of the Navy, 1871*, 281–82; and "L. A. Kimberly to Rodgers, 15 June 1871," *Report of the Secretary of the Navy, 1871*, 290–92.

³⁶ "L. A. Kimberly to Rodgers, 15 June 1871," *Report of the Secretary of the Navy, 1871*, 290–92.



FIGURE 21

View inside Fort McKee, after its capture on 11 June 1871. As a result of the action, 350 Koreans and 3 Americans were killed.
Naval History and Heritage Command

Commander Winfield Scott Schley commanded the assault force as the Americans routed the defenders inside. Captain Tilton led some of his Marines around the side of the fort, cutting off the escape of fleeing Korean soldiers with a vicious crossfire. Inside the fort, Marine private Hugh Purvis reached the main flagpole and hauled down the Korean flag.³⁷

As the fighting ended, American sailors and Marines set to work dismantling the forts and set up defensive positions to repel a potential counterattack. The Korean guns were spiked or thrown over the walls into the river and sections of the walls were knocked down. Prizes, in the form of flags and standards as well as lances and ceremonial weapons, were gathered and taken back to the squadron. Once the destruction was complete, however, the expedition's objectives were achieved (figure 21). Admiral Rodgers and Minister Low had simply aimed to chastise the Koreans, to punish them for firing on the American ships and boats from the forts.³⁸ Now that the forts were no longer a threat, the mission was complete and the force reembarked

³⁷ "L. A. Kimberly to Rodgers, 15 June 1871," *Report of the Secretary of the Navy, 1871*, 290–92.

³⁸ "Rodgers to Robeson, 5 July 1871," *Report of the Secretary of the Navy, 1871*, 280–81.

the squadron. Kimberly and the other officers retired to their ships and began writing their reports.³⁹

In the landing force operation, the Americans had superior weapons, used their land-based artillery well, and had the naval gunfire from *Monocacy* and the steam launches in support. During the course of two days, the sailors and Marines had organized themselves, attacked three forts in sequence, and fought in a disciplined and well-trained manner. The Marines under Tilton had been the first ashore and the last to leave after the withdrawal. The Koreans were armed with older and less-advanced cannon, they appeared to have poor accuracy and slow reloading times, and they had made an ineffective defense.⁴⁰

With the force reembarked on the ships of the squadron, Low and Rodgers sat in the admiral's cabin aboard *Colorado* and considered their options. Despite the fact that Low had clearly anticipated the mission to Korea might result in combat and the local forces defending themselves from what they might consider an American incursion, Rodgers appeared to be incensed. The small number of casualties on the American side—3 killed and 10 wounded—and an estimated 350 Koreans killed likely gave Rodgers some confidence, and he and the minister discussed the possibility of relanding the force and marching for the capital. The Americans learned that, after the initial incident on 1 June, the Koreans had sent messages to China announcing their defeat of the American invaders. He and Rodgers felt that they had to ensure that it was clear that Americans had not been defeated by force of arms. However, after discussing the matter further, Rodgers realized that he simply did not have the resources, either in manpower or in remaining supplies and ammunition, to embark on an even larger campaign.⁴¹

The Americans returned to diplomacy. Low and Drew spoke with local government officials again and reassured them that the mission was complete, and it was merely a punitive operation with no intention at an occupation. Low wrote a long letter to the Korean court in which he explained the operation, the intent only to chastise the local military leaders who had attacked American ships and boats, and the continuing American desire to negotiate a proper treaty. He turned the letter over to the local government officials and requested that they send it to the capital—but it was never sent. Instead, the local prefect returned the letter and insisted that the king was so furious about the American violence that he would be punished simply for forwarding the letter.

Low remained concerned about Chinese perceptions as well. He wrote back to Secretary of State Fish, “The news of a defeat of our arms in Corea [sic] would be

³⁹ Prizes and artifacts from the expedition are located in the United States Naval Academy Museum's “Trophy Flag Collection,” Annapolis, MD. See “Korean Battle Flags with Links to Kim Jong Un Found at Naval Academy,” *USNI News*, 14 December 2017.

⁴⁰ Robert Erwin Johnson, *Far China Station: The U.S. Navy in Asian Waters, 1800–1898* (Annapolis, MD: Naval Institute Press, 1979), 165.

⁴¹ “Low to Fish, 6 July 1871,” FRUS 1871, Document 36, 142–48.

spread throughout China, enlarged and embellished . . . and would seriously injure our prestige and endanger our people residing there.”⁴² The diplomat wanted to remain in Korean waters for a few more days to ensure that it was clear who had won, but he and Rodgers decided it was unwise to proceed with any further operations and risk the real possibility of defeat. He wrote to Fish that

*in view of these considerations, and the additional one that hostile operations against a foreign country should not, except under the most peculiar circumstances, admitting of no delay, be carried on without the express sanction of the Government, previously obtained, I concluded to pursue the course above indicated.*⁴³

It appears that Rodgers agreed that, for the moment, operations could go no further. However, he still felt the Koreans had insulted American honor. He agreed with Low that it was time for the squadron to withdraw and reported to Washington that the president should send a new force to invade and occupy Seoul to assert American rights and to force a treaty on the Koreans. He recommended a minimum force of 3,000 U.S. Army regulars, but suggested that 5,000 would do the job more quickly and with less risk. For maximum efficiency, he recommended a force made up of combat veterans from the recent American Civil War.⁴⁴

The squadron took stock of its position after the fighting. Two of Rodgers’s ships were leaking after hitting rocks in the river, and his magazines were nearly empty of ammunition. The admiral and Low had expected their demonstration of tactical excellence to force the Koreans to negotiate. Instead, they concluded that continued efforts were futile. Neither side was willing to budge. The combat operations and loss of life on both sides seemed to have almost no effect. Frustrated, running low on supplies, and realizing that they needed to return to China to begin combating the rumors that the Koreans had destroyed the squadron, the American ships weighed anchor on 3 July and set sail to return Low to his embassy.

On the return voyage to Shanghai, Low considered the squadron’s experience at Ganghwa Island and wrote a long letter to the secretary of state with his thoughts on its strategic impact. Nearly two decades before Alfred Thayer Mahan published his book on seapower, Low’s reflection began with one on the U.S. identity as a maritime nation.⁴⁵ He asserted that Korea remained a problem foremost because of its challenge to freedom of the seas.⁴⁶ This challenge came via their refusal to promise to treat shipwrecked sailors well and their refusal to allow their coasts and waters to be charted in the interests of safety and science. He asserted that “the sea is the great highway of nations, which no country is at liberty to obstruct with impunity” and

⁴² “Low to Fish, 6 July 1871,” FRUS 1871, Document 36, 145.

⁴³ “Low to Fish, 6 July 1871,” FRUS 1871, Document 36, 145.

⁴⁴ Johnson, *Far China Station*, 166.

⁴⁵ Capt A. T. Mahan, *The Influence of Sea Power upon History, 1660–1783* (New York: Little, Brown, 1898).

⁴⁶ “Low to Fish, 6 July 1871,” FRUS 1871, Document 36, 146.

that all governments had a responsibility to find and chart hazards on that shared resource. Korea refused to do so, which according to Low placed them outside of civilized society and in violation of their responsibilities as a legitimate government.⁴⁷

Yet, beyond the theory, the international norms of the Western-imposed global order, and American identity as a maritime nation, Low was more specifically concerned about practical matters of strategy and his job as a senior American diplomat in the Pacific. The operation against the forts had been a tactical success, but an operational failure since it did not move forward the ultimate goal of the mission, the negotiation of a treaty. Strategically, it was also problematic for the minister. It was clear to Low that Korea “will not voluntarily make any arrangements” with Western powers, but this had implications beyond the peninsula. The governments in China and Japan would take notice of the fact that, despite being bloodied in a battle, the Koreans had ultimately succeeded in holding the Americans at bay. He wrote, “This will react upon China, and prevent further concessions being made.” It opened the possibility that antifoignier groups in China could insist on the Chinese “right and duty . . . to expel all foreigners.” He also believed it would affect relations with the Japanese court.⁴⁸

In addition to the new diplomatic difficulties, Low pointed out that the Americans could rapidly lose control of the narrative in the Western Pacific. He saw that “it is so manifestly the disposition and policy of oriental officials to misrepresent misfortunes” that he believed Koreans and Chinese might both quickly come to actually believe that the events of June were a resounding Korean victory.⁴⁹ The results on Ganghwa Island may have been a one-sided American success, but not at the level of what today’s strategists would call *strategic communications*. Low believed that the Americans could, and likely would, be cast as defeated in the courts of the Asian powers. He was right to worry; the Koreans concluded that they had achieved as great a victory in defending themselves from the Americans as they had from the French and the Russians. In China, court officials agreed.⁵⁰

Ultimately, Low appeared to agree with Rodgers. There were two choices for the United States and the powers of Europe. Either accept that Korea would remain closed and would continue to infringe on the freedom of the seas or impose an agreement on them. This would likely mean an invasion and occupation of Seoul. Negotiation would lead nowhere. Low insisted that he did not believe in “making war upon Corea [sic] or any other country for the sole purpose of opening them to foreign trade.” However, strategically the situation had moved beyond that simple goal. Low believed that for the United States to maintain its position as a maritime power and its rising status on the world stage, it could not allow Korean intransigence to con-

⁴⁷ “Low to Fish, 6 July 1871,” FRUS 1871, Document 36, 146.

⁴⁸ “Low to Fish, 6 July 1871,” FRUS 1871, Document 36, 147.

⁴⁹ “Low to Fish, 6 July 1871,” FRUS 1871, Document 36, 147.

⁵⁰ Chang, “Whose ‘Barbarism?’,” 1361.

tinue for reasons of great power competition beyond “mere mercantile advantages.”⁵¹

Despite Admiral Rodgers’s military assessment of the need to send thousands of U.S. Army troops to Korea, and Minister Low’s argument that grand strategy dictated further military operations and occupation, it appears that President Ulysses S. Grant and his administration simply ignored the suggestions.⁵² After beating back a French expedition in 1866 and then the American incident in 1871, Korean isolationism hardened, and the first formal trade treaty with the Hermit Kingdom was not negotiated by a Western power. Instead, as Japan strengthened during the Meiji Restoration, the rising Pacific island power forced the first commercial agreement with Seoul in 1876.⁵³

After letting the tension from the 1871 operations abate, newly promoted Commodore Robert Shufeldt returned to diplomacy and negotiation rather than threats of invasion to achieve American aims with Korea. From 1880 to 1882, Shufeldt conducted diplomatic missions to Japan, Korea, and China in pursuit of a negotiated treaty. In 1882, he built on previous efforts with the Chinese Viceroy Li Hongzhang to push the ongoing dialogue toward formal treaty language. Using the Chinese relationship with Korea to force the negotiation, Shufeldt ultimately came to an agreement with the Chinese, who politically imposed the terms on the Koreans. In 1882, Korea and the United States signed the first Western treaty with the peninsula, opening them for American trade. The U.S. Senate ratified it on 9 January 1883.⁵⁴

The American expedition to Korea in 1871 offers an interesting look at amphibious operations within a peacetime context and in the service of great power competition. The United States saw itself as a maritime power in the Pacific, as indicated in Low’s correspondence with the State Department; and as an aspiring great power, it was in direct competition with Russia, France, and Germany, who had all previously attempted to open Korea to Western trade. The force deployed under the command of Rear Admiral Rodgers had been well constituted for its mission, with a mix of larger vessels and shallow draft gunboats and steam launches to work in the Korean littoral. The sailors and Marines that made up the landing force had trained and prepared well for the missions. Tactically, the amphibious operation conducted against the Koreans was a substantial success, with very limited American casualties and an estimate of 35 times the casualties imposed on the Koreans.

Yet, great power competition and the use of naval force in peacetime is about more than simple comparisons of body counts and the tactical aftermath of a military

⁵¹ “Low to Fish, 6 July 1871,” FRUS 1871, Document 36, 147.

⁵² Johnson, *Far China Station*, 165–66.

⁵³ In 1868, a political revolution (the Meiji Restoration) ended the control of the military government, returning control back to the imperial family. Young-Iob Chung, *Korea under Siege, 1876–1945: Capital Formation and Economic Transformation* (Oxford, UK: Oxford University Press, 2006), 42, <https://doi.org/10.1093/0195178300.001.0001>.

⁵⁴ David F. Long, *Gold Braid and Foreign Relations: Diplomatic Activities of U.S. Naval Officers, 1798–1883* (Annapolis, MD: Naval Institute Press, 1988), 404–9.

mission. Operationally, the landing and attack on the Korean forts ultimately hurt the political objective of the squadron's mission. Once a large battle had occurred, there was no possibility of conducting a successful negotiation despite Low and Rodgers's intent to do so. In addition to the operational failure, strategically the successful amphibious operation had actually weakened the American position in the Western Pacific. As with the Russians and the French before them, military threats had failed to result in an agreement. It was not only the Koreans who came out of the experience convinced of American weakness; it also strengthened antiforeigner elements in China and Japan.

Across American naval history, amphibious operations have been used in both wartime and in peace to forward American interests. However, as in Korea, a close study of their history can remind strategists, historians, and military professionals that tactical military success may not be all that is required. For amphibious operations to fit into eras of great power competition, and the tension between nations outside the context of full nation-state wars, it requires a deep understanding of the operational and strategic possibilities involved and their relationships with other elements of national power, such as diplomacy. Success is not always achieved, even if the amphibious force wins the engagement militarily.

CHAPTER EIGHT

Estonian Amphibious Operations in the Eastern Baltic, 1918–20

Eric A. Sibul

The Estonian experience with amphibious operations is somewhat unique in the annals of modern military history.¹ Amphibious operations within high-intensity conflicts, with few exceptions, tend to be the province of great powers and large armed forces.² In contrast, within mere weeks of the establishment of a navy and amid national crisis, the Estonians began amphibious landings in the Gulf of Finland. Furthermore, within the period of the First World War, amphibious warfare was seldom practiced. Estonian officers almost exclusively drew their military experience from the Tsarist armed forces, which had scant experience with landing operations. Amphibious operations greatly assisted the Estonians to liberate their country and bring their War of Independence (1918–20) to a successful conclusion. It enhanced Estonian maneuver and allowed them to strike the Bolsheviks and German

¹ Unless an exception is noted in the text, the town and city names used are specific to the period. For example, Peipsi vice Peipus, Saint Petersburg was Petrograd in 1919, what is today Kingisepp was Jamburg in 1919. All town and city names reverted to the local languages in April 1917—Tartu vice Dorpat, Cesis vice Wenden. Also, in the Baltic context, there was the *Landeswehr* versus *Landwehr*, when referring to von der Goltz's forces in 1919 and used up to contemporary historiography.

² There is no precise description of a small power or small nation, but political scientists have generally fixed it in contemporary times as a state with a population under 10 million. There is no precise definition for small armed forces, but in the 1918–20 period, Estonia at full mobilization had 72,000. In the 1914–18 period, the British Empire, Austria-Hungary, Germany, Italy, the Russian Empire, and the United States mobilized troops in numbers greater than 3 million. Small navies can be generally considered as littoral navies, not having the ability to conduct large scale “blue water” operations.

forces at unexpected places, creating a type of psychological warfare. Maneuver was critical, as the Estonians were outnumbered and supported by meager resources, making it impossible to fight a war of attrition. This chapter examines how and why the Estonians used amphibious operations and the enduring lessons from their example.

ESTONIAN BACKGROUND TO 1918

Estonia was part of the Russian Empire from 1721 to 1918. Estonia's population of 1.3 million people, as with other non-Russian groups on the Russian Empire's western borders, were swept up in a rising tide of linguistic and cultural nationalism in the late nineteenth and early twentieth centuries. As the Russian Empire fell into chaos after the Bolshevik coup in Petrograd on 7 November 1917, Estonian political leaders saw both the opportunity and necessity of national independence (figure 22).

On 24 February 1918, Estonia declared independence and a provisional government proclaimed their authority, although the German Army occupied the country and held actual power until 11 November. Estonia's declaration of independence represented an important diplomatic move as it put Estonians in alliance with the Entente Powers (or Allies during World War I), who would treat Estonia as a German-occupied country. German authorities disarmed the Estonian troops and ordered all weapons and supplies held by Estonians turned in to the occupation authorities. Estonian political leaders continued nationalist activities underground, however, and military leaders secured what arms they could into secret caches. Before the Germans occupied Tallinn—the country's capital on the Baltic Sea—the Estonian provisional government sent out a foreign delegation to London and Paris to gain *de facto* recognition of their independence. Eight days after the Armistice on 11 November 1918, members of the Estonian foreign delegation requested that the British government send a naval squadron into the Baltic Sea to assist the Estonians and other Baltic countries. The British Foreign Office agreed and instructed the Admiralty to send a squadron to the region. The squadron got underway from Britain on 27 November 1918.³

THE ESTONIAN WAR OF INDEPENDENCE, 1918–20

With the Armistice, the Estonian provisional government resumed its activities. German forces agreed to withdraw, but were openly hostile to the new Estonian government. Meanwhile, the Estonians organized their government institutions and their armed forces while Bolshevik troops massed on Estonia's borders.

On 28 November, the Red Army invaded Estonia with a total strength of 12,000

³ *Estonian War of Independence, 1918–1920: Reprint of a Summary of prepared in 1938–1939* (New York: Eesti Vabadusvõitlejate Litt., 1968), 11–13; O. Toomara, "British Squadron to Tallinn: Its Gallant Record during the War of Liberation," *Baltic Times*, 19 December 1938, 4; and Evald Uustalu, *The History of the Estonian People* (London: Boreas Publishing, 1952), 155–61.



FIGURE 22
Map of Estonia and the Baltic region.
U.S. Central Intelligence Agency

soldiers, using Jamburg and Pskov in Russia as forward bases. For the Russians, capturing Narva, Estonia, would be the first step in the drive along the shore of the Gulf of Finland to capture the Estonian capital. Narva was the easternmost Estonian city on the northern end of the 48-kilometer-wide Narva Isthmus between the Gulf of Finland and Lake Peipsi (figure 23).⁴ The isthmus and the Narva River formed pieces of key terrain from which the northeastern border of Estonia could be readily defend-

⁴ Peipsi is the Estonian name for the lake, Chydskoe in Russian, Peipus in German. Peipus is no longer used on contemporary maps and navigation charts.

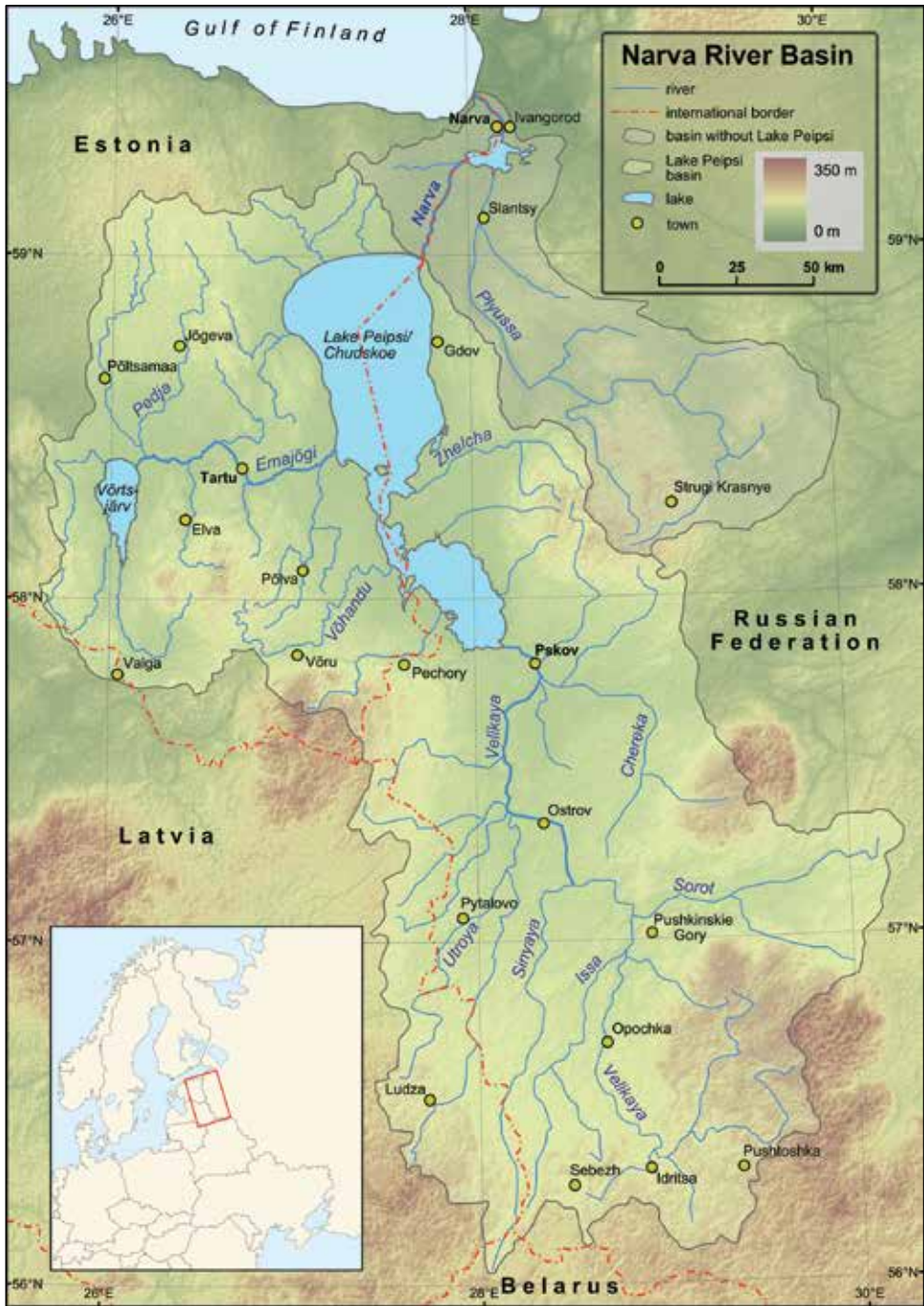


FIGURE 23
 Map of the Narva area.
U.S. Central Intelligence Agency

ed. The city sits on the western bank of the river, which flows from Lake Peipsi into the Gulf of Finland. The river is broad, with an average width of 250 meters, making it impossible to ford. The river crossing points into Narva from the east at the time consisted of two high railway bridges and a low road bridge constructed of timber.

The Estonian defenders of Narva consisted of 787 troops with three machine guns. Most defending the river crossing points were deployed in vicinity of the Narva-Tallinn railway line. The coastal Narva-Jõesuu district, with its wide sandy beach, where a Bolshevik amphibious landing was expected, was defended by only 19 lightly armed soldiers. The Bolshevik force attacking Narva consisted of 2,800 fighters with six artillery pieces, two armored cars, and an armored train. In addition, a landing force of 500–700 landed from the Bolshevik destroyers *Spartak* (1917) and *Avtroil* (1917) and two merchant ships. While the main body of the Bolshevik forces came along the railway line from Jamburg, the landing force came ashore at Narva-Jõesuu, flanking the Estonian defenders. This force moved west to the village of Mereküla, threatening to cut the road and railway line from Tallinn into Narva.⁵ Demolition of the railway bridges across the Narva River slowed the Bolshevik advance. According to Lieutenant Georg Leets, one of the defenders of Narva, “the task of our first line defenders was to resist but not to destroy ourselves, it was to gain time for mobilization and then to respond with an organized offensive.”⁶

Estonian troops abandoned Narva on the night of 28 November and withdrew along the Tallinn road and railway line. Estonian forces further withdrew into a perimeter in western Estonia centered around the capital of Tallinn, which supported most of the country’s industry and the largest port facilities. Within the defensive perimeter, the Estonian government quickly organized and mobilized all available forces and materiel for the defense of the country.⁷

Simultaneously, the British Foreign Office informed the Estonian government that a British naval squadron was en route to the Baltic to assist.⁸ The British vessels arrived in Tallinn under the command of Admiral Sir Edwin S. Alexander-Sinclair. On 12 December 1918, the first of a 30-ship squadron arrived in Tallinn and, the next day, the first British transport began to offload Lewis light machine guns, naval guns, rifles, and spare clothing. Royal Marines acquainted Estonian troops with the Lewis machine guns, as it was considered the best and most reliable weapon of its kind

⁵ G. Leets, “Uus Hädahoht–Dessant N. Jõesuu” [A New Danger–Assault on Narva-Jõesuu], *Postimees*, 7 December 1938, 2.

⁶ G. Leets, “15 Aasta Eest Vabadussõja Algu Narva Lahing 28 Novembril 1918” [15 Years since the Beginning of the War of Independence: The Battle of Narva, 28 November 1918], *Kaitse Kodu!*, 28 November 1933, 686.

⁷ “Memorandum Giving a Narrative of Events in the Baltic States for the time of the Armistice, November 1918 up to August 1919,” Admiralty: Record Office, 1852–1965, ADM 116, 1864, United Kingdom National Archives, Kew; *Estonian War of Independence, 1918–1920*, 15–16; and Uustalu, *The History of the Estonian People*, 163–66.

⁸ Edgar Anderson, “British Policy Towards the Baltic States, 1918–1920,” *Journal of Central European Affairs* (October 1959): 278.

available at the time, and it provided the Estonian Army a great deal of highly mobile firepower. The British also provided the Estonians with a small number of Danish Madsen light machine guns. The Madsen had similar characteristics to the Lewis, but was not as easy to operate. The Royal Marine instructors conducting training for the Estonians in the Tallinn Customs House taught young student volunteers the use of the Lewis gun before they departed for the front lines. Those with experience from World War I were given more training on the Madsen.⁹ The Lewis gun became the standard arms of the armored train assault troops and the amphibious landing forces of the Estonian Navy.

THE ESTONIAN NAVY

The Estonian Navy was quickly organized in November 1918. Its first vessel was the gunboat *Bobr* (1906), a former Russian coastal defense vessel in the port of Tallinn, which Estonian sailors and officers seized from the Germans and rechristened the EML *Lembit*, after an ancient Estonian national hero.¹⁰ The Estonian Navy was assisted by the arrival of the British squadron on 12 December 1918. The *Lembit*'s first operations were ad hoc raids on Kunda Bay, Purtse, and Aseri behind Bolshevik lines. When the first British vessels arrived in Tallinn, commander of the Estonian Navy Johan Pitka met with Admiral Alexander-Sinclair and asked him to shell Bolshevik units and supply lines at Purtse, Aseri, and Kunda Bay.¹¹ According to Pitka, this would "inconvenience the enemy and show that we have a navy."¹² With Pitka aboard the cruiser HMS *Cardiff* (D 58) and accompanied by two destroyers, the *Lembit* arrived at Purtse at dawn on 13 December 1918. The attack proved highly successful, and a barrage of naval gunfire destroyed the bridge across the Purtse River. Embarked Estonian observers saw supply wagons smashed, four gun carriages overturned and exploded, and a Bolshevik supply column retreat in confusion. The vessels proceeded to nearby Aseri and Kunda Bay and shelled additional Bolshevik units.

⁹ "Supply of Madsen Machine Guns to Esthonians," 25 January 1919, Paris Peace Conference, 1919–1920: FO 608, United Kingdom National Archives, Kew; *Estonian War of Independence*, 21; and Paravane [pseudonym], "With the Baltic Squadron, 1918–1920," *Fortnightly Review*, no. 653 (2 May 1920): 707.

¹⁰ Lembit (a.k.a. Lembitu) was an ancient Estonian king of Sakala County who led the military against the German Livonian Order at the beginning of the thirteenth century. In 1215, Lembit's stronghold near the present-day Suure-Jaani was taken by Germans. Lembit was taken prisoner and not released until 1217. He attempted to unite the Estonians to withstand the German conquest and assembled an army of 6,000 troops from different counties, but was killed at the Battle of St. Matthew's Day in September 1217. "Recollections of a Former Estonian Naval Officer by Karl K. Jõgis (Lieutenant Estonian Navy) as Told to Heino Jõgis" (unpublished manuscript, San Jose State University, 1967), 1.

¹¹ Johan Pitka attended the Paldiski Maritime School receiving a merchant ship captain's license in 1895. He performed only short compulsory duty aboard the Imperial Russian Navy armored cruiser *Admiral Usakov*. He then became an experienced merchant mariner and engaged in marine salvage work. Between 1907 and 1917, Captain Pitka operated a shipping company headquartered in Tallinn that operated between Baltic ports and Great Britain.

¹² Johan Pitka, "My Reminiscences of the Assistance of the British Navy in Our Fight for Independence," *Baltic Times*, 4 February 1939, 2.

With the success of the attacks, Pitka decided to stage an amphibious raid on Kunda Bay using the *Lembit*, a civilian sloop, and a special service vessel with 32 volunteers making up the landing force on 23 December 1918. The amphibious raid took the Bolsheviks by surprise, with the capture of war materiel and prisoners, including some high-ranking commissars. The prisoners were taken on board and back to Tallinn. Perhaps the most valuable result from the operation was the intelligence collected on Bolshevik forces and the knowledge that their drive toward Tallinn was culminating as their supply lines were becoming increasingly attenuated.¹³

With the success of the Kunda Bay operation, the Estonians planned another amphibious raid for 25 December 1918 at Port Loksa using the same vessels and a landing force of 120 troops from the navy and the army's Kalev Infantry Battalion.¹⁴ Upon arriving at Port Loksa, as the Estonians were in middle of launching the landing boats, two modern Bolshevik destroyers were observed heading toward Tallinn. The destroyers failed to spot the Estonian vessels and Pitka continued the landing operation. The landing force scattered the Bolshevik troops occupying the port. At Loksa, the Estonians captured a battalion commander and a Red Army payroll of 28,000 gold rubles. The Bolshevik destroyers that had been spotted prior to the raid ran aground at the entrance of Tallinn harbor and were captured by the Royal Navy. Once turned over to the Estonians, the vessels—rechristened EML *Lennuk* and *Vambola*—were readied for action. On 6 January 1919, the Estonian Navy made another amphibious landing at Kuusalu Bay using the *Lennuk*. The *Vambola*, in contrast, needed considerable repair and refitting to become fully operational.¹⁵

In the matter of three weeks, the Estonians formed an operational navy with successful amphibious landings to their credit. In contrast, this task has typically taken a longer time for other small, newly independent powers to undertake and more direct assistance from their larger allies.¹⁶ What was Estonia's advantage? The Estonians had been great mariners in ancient times, but the Crimean War (1853–56) reestablished them as modern mariners. After the Great Northern War (1700–21), because of their loyalty to the Swedes, Russian authorities had restricted Estonians in maritime trades. The destruction of the Russian merchant marine by British and

¹³ Pitka, "My Reminiscences of the Assistance of the British Navy in Our Fight for Independence."

¹⁴ Leopold Tõnson, chairman of the Kalev Sporting Association in Tallinn, organized the Kalev Infantry Battalion on 18 December 1918 from volunteers from his organization.

¹⁵ Edgar Anderson, "An Undeclared Naval War: The British–Soviet Naval Struggle in the Baltic, 1918–1920," *Journal of Central European Affairs* 22 (April 1962): 49; Paravane, "With the Baltic Squadron, 1918–1920," 707; and Taavi Urb, "Mereditandid Eesti Vetes 20. Sajandil" [Amphibious Landings in Estonian Waters in the 20th Century], *Kaitse Kodul*, April 2012, 38.

¹⁶ In comparison, for example, Moshe Tzalel notes the quickly organized Israeli Navy in the 1948 Israeli War of Independence that sank some enemy ships through sabotage in foreign ports. Despite this, their other operations were not very successful: "Several small-scale landings behind enemy lines were also carried out, but they accomplished little due to insufficient intelligence and lack of training. The few attempts at shore bombardment were likewise disappointing." Moshe Tzalel, *From Ice-breaker to Missile Boat: The Evolution of Israel's Naval Strategy* (Westport, CT: Westwood Press, 2000), 12–13.

French blockading fleets during the Crimean War made the Estonians a seafaring nation again. The coastal fishermen became experienced blockade runners and were used to making long ocean voyages. Replacing the destroyed Russian merchant vessels with the consent of Tsarist authorities, Estonians became involved in commercial enterprise and gained greater contact with the outside world.¹⁷ This led to the development of what American naval theorist Alfred Thayer Mahan described as a “great population following callings related to the sea . . . [which is] now as formerly, a great element of sea power,” allowing the Estonians to rapidly develop naval forces in the last days of 1918 and early in 1919.¹⁸ The development of Estonian maritime enterprises was assisted by the opening of a number of maritime schools in coastal towns, the first one at Heinaste (Ainaži) in 1864. Personnel for the Estonian Navy largely came from the experienced pool of merchant mariners, including the commander of naval forces, Captain Johan Pitka.¹⁹

Cooperation between the Estonian Army and Navy was largely seamless and, in fact, Captain Pitka commanded the Army’s first armored train sent to the front.²⁰ Before becoming commander of Estonian naval forces, Pitka, the consummate nationalist and civic activist, was chairman of the *Kaitseliit* (Estonian Defence League), a voluntary organization of local defense forces that developed into a territorial militia. In mid-November 1918, members of Tallinn’s *Kaitseliit* found some railway cars covered with steel plates at the Kopli freight station. The discovery prompted Pitka to put forward the idea of building armored trains in Tallinn’s engineering works and shipyards. This idea quickly translated into action, and the Estonian armed forces, with the assistance of the Estonian Railways, completed Armored Train No. 1 on 29 November 1918. It left for the front the following day.

From its very first encounters with the enemy, Armored Train No. 1 proved its worth and more armored trains were quickly constructed. On 7 January 1919, the Estonians opened a general counteroffensive against the Red Army. The center of the Estonian advance was supported by four armored trains with assault troops and, from the Gulf of Finland, the Estonian Navy supported with naval gunfire and amphibious landings in the Bolshevik rear area (figure 24).²¹

¹⁷ H. Sepp, “Põgus pilk Eesti laevanduse arengusse” [A brief look at the development of Estonian shipping], *ERK* (1937): 74–75.

¹⁸ Alfred Thayer Mahan, *The Influence of Seapower upon History, 1660–1783* (Boston, MA: Little, Brown, 1890), 50.

¹⁹ Sepp, “Põgus pilk Eesti laevanduse arengusse,” 75.

²⁰ “Le vice-Amiral Pitka,” *Bulletin de l’Esthonie*, November 1919, 1; Fred Limberg, *Isamaa eest: Eesti Vabariigi sõjajõudude organisatsioon ja juhtkond* [For the Fatherland: Organization and Leadership of the Estonian Republic’s Armed Forces] (Cardiff, Wales: Boreas Publishing House, 1980), 38.

²¹ *Estonian War of Independence, 1918–1920*, 21; Jaan Maide, *Ülevaade Eesti Vabadussõdast 1918–1920* [Overview of the Estonian War of Independence 1918–1920] (Tallinn, Estonia: Kaitseliidu Kirjastus, 1933), 217–22; and “Formation of Armoured Trains and Their Importance in the Estonian War of Liberation,” *Baltic Times*, 19 December 1938, 1.



FIGURE 24
Utria landing on 18 January 1919, with the gunboat *Lembit* at center.
Eesti Rahvusarhiiv, Estonian National Archive, ERA.4996.1.385.51

UTRIA LANDING AND THE LIBERATION OF NARVA, JANUARY 1919

The main thrust of the Estonian counteroffensive was along the Tallinn–Narva Railway, which followed the coast of the Gulf of Finland. The main highway also ran beside the railway. The Estonian Navy carried out the landing of 320 fighters at the Port of Loksa to support the Estonian 1st Division's operation to seize the important railway junction of Tapa, where the railway to Tartu and Valga connected with the Tallinn–Narva line. On the following day, the Estonian Navy staged another amphibious landing at Kunda with the *Lenmuk* and *Lembit* landing two detachments: one under Lieutenant Karl Aleksander Pauluse with 120 personnel and Major Martin Eugen Ekstõrm with 200 Finnish volunteers. The landing was designed to throw the Bolsheviks off balance and disrupt their communications. The landing took control of the harbor, town, and a large cement works, and Kunda Manor was taken the next day. The landing at Kunda and capture of Tapa caused the Bolshevik forces to withdraw eastward toward Narva.²²

After the Kunda operation, the Estonian Navy made immediate preparations for

²² Maide, *Ülevaade Eesti Vabadussõjast 1918–1920*, 212–17; and Pitka, “My Reminiscences of the Assistance of the British Navy in Our Fight for Independence,” 2.



FIGURE 25
Utria landing zone, January 1919.
Eesti Rahvusarhiiv, Estonian National Archive, EFA.67.4.1341

a new amphibious landing. Given their previous successes, the Navy planned with growing confidence. The next destination was to be deep behind the enemy lines to achieve a decisive impact. The first idea was to land at Narva-Jõesu because of its sandy beaches and proximity to Narva but also the lack of cliffs made conditions seem quite suitable. However, the threat of an amphibious operation was known to the Bolsheviks, and the Estonians believed the beach at Narva-Jõesu to be mined. Therefore, the Utria region was chosen for the landing in spite of unfavorable terrain, including a rocky beach and high cliffs (figure 25).

The switch to Utria was meant to provide the element of surprise as the enemy did not expect an amphibious landing to be attempted in this area. The amphibious landing was planned to have the initial effect of disrupting communications between the Bolshevik front lines in the Vaivara-Sinimäed area that was defended by 86th Regiment and the Bolshevik base of operations in northern Estonia at Narva. Leon Trotsky, the Bolshevik government's minister of war and marine, reportedly was in direct command of operations in Estonia at Narva.²³

Captain Johan Pitka commanded the Estonian amphibious force, while the 1st

²³ Born Lev Davidovich Bronshtein, Trotsky was a Communist theorist and agitator, a leader in Russia's October Revolution in 1917, and later commissar of foreign affairs and of war in the Soviet Union. When Joseph Stalin emerged as the victor following the struggle for power that resulted from Vladimir Lenin's death, Trotsky was removed from all positions of power and later exiled. He would remain the leader of anti-Stalinist opposition while in asylum in Mexico until his assassination in May 1940.

Division under Colonel Aleksander Tõnisson continued the advance on land to link up with the landing force. A high bridge at Rakvere was being reconstructed by engineers, resulting in the 1st Division advancing without support from the armored trains. The trains went south from Tapa as the railway line to the university town of Tartu was open. On 14 January 1919, the 300 assault troops of the armored trains and the Kuperjanov partisans retook Tartu from approximately 2,000 Bolshevik defenders in a rapid assault.²⁴ Colonel Jaan Maide wrote in 1933 that “the bold, sudden thrust by the armored trains and Kuperjanov partisans threw the enemy into confusion, resulting in the quick liberation of Tartu.”²⁵ This operation could not have come too soon for the Estonians, as the occupation of the town had resulted in the large-scale massacre of civilians.²⁶

The landing operation at Utria began on 17 January 1919, and consisted of the Tallinn Battalion’s 400 troops under Lieutenant Karl Aleksander Paulus and the 1st Finnish Volunteer Battalion’s approximately 1,000 fighters under Major Martin Ekström. A Bolshevik artillery battery defended the landing zone at Mereküla and an armored train (guns and heavy machine guns) operated on the branch line from Auvere railway station. There were approximately 3,000 soldiers of the 86th Regiment in the vicinity, but they were fixed in defensive positions oriented to stop an expected advance of the Estonian 1st Division from Rakvere.

The guns of *Lennuk* and *Lembit* silenced the battery and the armored train was forced to pull back to the main line. The landing proceeded without further disruption from enemy artillery, though the sea conditions became more and more difficult as winds increased and the sea state grew in intensity. Several of the landing boats capsized and troops had to swim or wade ashore in the cold water. The landing was also difficult because of icy rocks on the beach; only about 250 to 300 fighters landed by the evening of 17 January when ship-to-shore transfers were suspended. Among those who landed were some students from Narva who knew the surrounding terrain and served as guides for the assault force. On their own initiative, the students helped find a better location for landing the boats for the rest of the assault force. With the more suitable landing location, the remainder of the landing force successfully arrived on the morning of 18 January.

The landing force plan was for the main body to take hold of the Utria-Laagna

²⁴ Julius Kuperjanov was born in 1894 in the Pskov Governorate. He attended the Tartu Teacher’s Seminary and became a schoolteacher for the Kumba Village School near Tartu. Kuperjanov was mobilized in the Tsarist Army and completed officer basic school in 1915 in Petrograd. In the 5th Kiev Grenadier Regiment, he quickly won the respect of officers and enlisted alike, leading reconnaissance teams behind enemy lines. In 1917, he returned to Estonia. In December 1918, as a lieutenant in the Estonian Army, the Estonian General Staff gave him permission to organize a partisan battalion to conduct guerrilla operations as the Bolsheviks occupied Tartu County. Kuperjanov sustained fatal wounds at Paju Manor on 31 January 1919. The Kuperjanov Partisan Battalion quickly transformed into a conventional infantry battalion once the Bolsheviks were driven from Estonian territory.

²⁵ Maide, *Ülevaade Eesti Vabadussõjast 1918–1920*, 227.

²⁶ “Crimes of the Bolsheviks in Esthonia,” *Current History*, 1 June 1919, 497.

area while one company of Finns moved to take Narva-Jõesu and then assault Narva. In the meantime, the Estonian 1st Division would continue its land advance to link up. Not knowing the exact strength of the enemy in the Utria area and considering that troops on shore had very limited ammunition, Captain Pitka on board ship radioed the general staff in Tallinn to urge the 1st Division to move faster toward Narva. As of 17 January, 1st Division was still about 30 kilometers to the west at Jõhvi. The combination of naval gunfire directed at Auvere station and the landing force holding the Utria area effectively cut communications (e.g., road, rail, and wire) between the Bolshevik command in Narva and its front lines. The Bolsheviks had a highly centralized command structure that was complicated by parallel political-military control hierarchies. Their frontline units remained largely passive awaiting orders.

With communications cut between frontline positions in the Vaivara-Sinimäed area and Narva, the bulk of the Bolshevik's 86th Regiment deserted their positions and surrendered to the advancing Estonian 1st Division. On the afternoon of 18 January, and with the landing force successfully on shore, the *Lennuk* and *Lembit* steamed to Narva-Jõesu, where they found the beach unmined. The *Lembit* landed a naval detachment to support the advance of the Finns on the city. The Finns moved rapidly, using local scouts to speed their advance, and their two companies entered Narva in the early evening as the city was filled with retreating Bolshevik troops, support units, and headquarters. By the next morning, Narva was fully under Estonian control.²⁷

The Estonians captured 35 field artillery pieces, 7 naval guns, 118 machine guns, 2,000 rifles, 2 airplanes, 9 locomotives, 180 railway cars, 4 coastal vessels, 13,000 shells, and a large quantity of rifle ammunition. The speed of the Estonian assault on Narva took the Bolsheviks by surprise, resulting in the capture of Red Army divisional and regimental staffs. The Bolshevik minister of war, Leon Trotsky, narrowly escaped.²⁸

With the recapture of Narva and successes in southern Estonia on the first anniversary of the Estonian declaration of independence on 24 February 1919, the commander-in-chief of Estonia's armed forces, General Johan Laidoner, reported to the provisional assembly that all of Estonia had been liberated from Bolshevik forces.²⁹ The Bolsheviks were not through, however, and at the end of February 1919, they massed 75,000–80,000 troops at Pskov for another offensive. Estonian forces were still greatly outnumbered as they could field only one-third of that number.³⁰ For the Estonians, the use of armored trains and amphibious operations were highly successful in

²⁷ *Eesti Vabadussõda, 1918–1920*, vol. I [The Estonian War of Independence] (Tallinn, Estonia: Vabadussõja Ajaloo Komitee, 1939), 373–75; Maide, *Ülevaade Eesti Vabadussõdast 1918–1920*, 225–27; and Siim Õismaa, *Landing in Utria on 17–19 January 1919* (Tallinn, Estonia: Eesti Sõjajärgmuuseum, 2009), 1–14.

²⁸ “Trotsky Flees from Battlefield: Bolshevik Army Defeated by Esthonians,” *San Francisco (CA) Chronicle*, 22 January 1919, 1; “Trotsky Near Capture after Red Defeat,” *Chicago (IL) Daily Tribune*, 22 January 1919, 2; and “Trotsky’s Check in Baltic Provinces,” *Times of London*, 24 January 1919, 7.

²⁹ Uustalu, *The History of the Estonian People*, 171.

³⁰ *Estonian War of Independence, 1918–1920*, 38.

the January 1919 offensive. The task of an armored train was to break through enemy lines and hold the area until regular infantry forces could reinforce. An amphibious force accomplished the same task at Utria, and at least one author from the period pointed out the parallel describing the trains as “land cruisers” as they had massed firepower and carried an assault force of “marines.”³¹ The armored trains were also important to the defensive, as owing to a general scarcity of troops the Estonian Army was not able keep strong reserves. Armored trains were a way of rapidly deploying well-armed troops and concentrated fire power where needed. While other powers constructed and operated armored trains, the Estonian innovation was the company-size infantry assault group attached to each train. The assault groups were equipped with grenades and light machine guns, with the British-supplied Lewis being especially effective. The crews of these armored trains consisted of volunteers, mainly idealistic young students, and command positions were filled by officers who were considered to have exceptional initiative and ability. As there was no established doctrine for employment of armored trains and no Tsarist experience to draw on, it was a matter of learning by doing to develop tactics.³²

Given the success with armored trains, another mobile strike force seemed a partial solution to the Estonian problem on the southern front, particularly regarding the greater numbers of Bolshevik troops and holding continuous defensive lines from the Gulf of Riga to Lake Peipsi, some 306 kilometers. General Laidoner and Captain Pitka envisioned a specialized marine force operating from the Gulf of Riga to strike unexpectedly at Bolshevik forces in Latvia, disrupting operations against Estonian lines (figures 26 and 27). Previously, landing forces were put together for individual operations, but there was no specifically dedicated amphibious force. On 5 March 1919, the Estonian Navy formally established the Marine Assault Battalion.³³ Its arms were similar to the armored train assault detachments, namely Russian rifles, large stocks of grenades and Madsen and Lewis light machine guns. Naval officers filled command positions and the navy recruited idealistic volunteers from Tallinn’s technical and high schools for the ranks. The Estonian coastal passenger steamer *Kalevipoeg* was requisitioned by the navy as a transport vessel to serve the battalion. Despite its initially envisioned employment of the landing force, it would see more amphibious operations in the east rather than in the south in the Gulf of Riga. For amphibious operations as with the employment of armored trains, the Estonians had little to draw from Tsarist experience. Therefore, the Estonians quickly built up their own ex-

³¹ M. Oiderman, typewritten manuscript, “Estonian Independence,” 1922, Estonian Ministry of Foreign Affairs, Hoover Archives, Hoover Institution on War, Revolution and Peace, Stanford, CA.

³² *An Armored Train* (Tallinn, Estonia: Eesti Sõjamuuseum, 2019), 5; *Eesti Vabadussõda, 1918–1920*, vol. II [The Estonian War of Independence] (Tallinn, Estonia: Vabadussõja Ajaloo Komitee, 1939), 50; and “Formation of Armoured Trains and Their Importance in the Estonian War of Liberation,” 1.

³³ Arto Oll, “Meremehed Rindel: Meredessantpataljon Eesti Vabadussõjas” [Sailors’ Front: The Marine Assault Battalion in the War of Independence], *Acta Historica Tallinnensia*, no. 18 (2012): 59.



FIGURE 26
 Marine Assault Battalion manning Armored Train No. 5 at Orava in southeastern Estonia,
 18 March 1919. Capt Johan Pitka stands on top of the gun.
Eesti Rahvusarhiiv, Estonian National Archive, EFA.114.A.253.647



FIGURE 27
 Estonian Marines (Marine Assault Battalion members) with Armored Train No. 5, March 1919. The
 battalion served inland on the southeastern front until the navigation season started in April 1919.
Eesti Rahvusarhiiv, Estonian National Archive, EFA.257.A.286.118

perience in amphibious operations, but again, it was a matter of learning by doing to develop tactics. The first deployment of the Marine Assault Battalion in March 1919 was inland with the armored trains on southeastern front; however, as the ice melted in April–May 1919 and navigation season began, the battalion started as amphibious operations against the Bolsheviks.³⁴

MAY 1919 OFFENSIVE: GULF OF RIGA AND LAKE PEIPSI

As of May 1919, the morale of Bolshevik troops in the Baltic region continuously declined with military setbacks, harsh discipline, and the high command diverting resources to fighting the white forces in the southern portions of the former Russian Empire. For the Estonians, it was an opportune time for an offensive to move enemy forces away from Estonian borders. The Russian Northern Corps, which was subordinate to Estonian Army command structure, would play a major role in the planned offensive as the Entente Powers desperately wanted Petrograd captured by anti-Communist Russian forces.³⁵ The Northern Corps was to attack from Narva toward Jamburg, with the Estonians conducting amphibious landings east of Narva from the Baltic Sea. In the south, the capture of the road and rail hub of Pskov (Pihkva) was largely to be an Estonian operation with some participation of the Northern Corps. Estonian forces would also drive toward Aluksne and Valmiera in Latvia.

The offensive began on 13 May 1919, with the Northern Corps capturing Popkova Gora, Russia, where the headquarters of the 6th Red Division was located. From Tallinn, an Estonian naval force with a landing detachment got underway on the same night. The landing detachment consisted of 200 troops of the Estonian Navy's Marine Assault Battalion and 400 from the Estonian Army's Ingrian Battalion.³⁶ The detachment landed on 15 May on the Luuga River estuary and on 16 May at Koporje Bay. The Estonians suffered two wounded but no fatalities (figure 28). The landings threw the Bolsheviks off balance, collapsing their front lines along the Gulf of Finland. Cap-

³⁴ *An Armored Train*, 5; and Oll, "Meremehed Rindel," 59–60.

³⁵ The Northern Corps was organized in October 1918 in Pskov under Gen Aleksander Rodzjanko as an anti-Bolshevik force. As the Bolsheviks took Pskov, the Northern Corps fell back onto Estonian territory. Rodzjanko agreed to subordinate the force under the command of the Estonian Army. At the beginning of May 1919, the Northern Corps had 2,750 fighters. With the taking of Pskov on 26 May 1919, the Northern Corps was now operating outside of Estonia and, in accordance with an earlier agreement signed between Laidoner and Rodzjanko, the Northern Corps was taken out of the Estonian command structure. The Northern Corps was reorganized as the Northwestern Army to fight Bolshevism in Russia. Command went from Gen Aleksander Rodzjanko to Gen Nikolai Yudenitch. The Northwest Army has been described as a white Russian army or anti-Bolshevik Russian forces in the Russian Civil War. Other white Russian armies included the forces of Adm Aleksandr Kolchak in Siberia and Gen Anton Denikin's armies in South Russia/Ukraine.

³⁶ The Ingrians, a Finno-Ugric people related to the Estonians and Finns who inhabited Ingria, the area between Narva and Petrograd, were also fighting for their self-determination. Ingria had a population of about 100,000 and the Ingrian battalion would grow to the size of a regiment as more of the population joined its ranks.



FIGURE 28

Estonian Marines' assault detachment from the destroyer *Vambola*, May 1919.
Ens Tiido Kraus (center).

Eesti Vabadussõda Ajaloo Komitee, Estonian Independence War History Committee, published 1938

tured Bolshevik troops heard the rumor that the Estonian landing force numbered approximately 10,000 fighters.³⁷

In the south, the Estonians launched the assault against the important lakeside rail and road hub of Pskov on the night of the 23 May 1919 as a joint army–navy operation. Infantry forces of the 2d Division supported by armored train assault troops were joined in the operation by the Lake Peipsi fleet of the Estonian Navy, including gunboats EML *Vanemuine*, *Tartu*, and *Ahti*, which supported the land forces with naval gunfire. The Peipsi fleet made amphibious landings at various key points with its small marine detachment. Bolshevik forces collapsed, and on 26 May, the Estonians occupied Pskov.³⁸

BALTIC LANDESWEHR CAMPAIGN: GULF OF RIGA, JUNE–JULY 1919

For the Estonians, fighting the Bolsheviks was complicated by the presence of German troops in Latvia. These troops, numbering roughly 30,000 fighters, consisting of the Baltic Landeswehr (Baltic Territorial Army), which was formed in Riga, Latvia, from Baltic Germans in December 1918 and the Iron Division, which consisted

³⁷ Maide, *Ülevaade Eesti Vabadussõdast 1918–1920*, 277; and Oll, “Meremehed Rindel,” 66.

³⁸ Maide, *Ülevaade Eesti Vabadussõdast 1918–1920*, 290.

of volunteers from Germany. The Allied powers had not insisted that these forces in the Baltic countries under the command of General Rüdiger von der Goltz be demobilized as happened with the other German forces in Eastern Europe because they promised to use them to fight the Bolsheviks. However, the Latvian provisional government was led by Kārlis Ulmanis, who was pro-Allied and anti-German. Thus, von der Goltz, operating with his own political agenda, did his best to hinder the formation of a Latvian national army.³⁹ On 16 April 1919, General von der Goltz staged a *putsch* against the Latvian provisional government.⁴⁰ Nearly a month later, on 23 May 1919, the Landeswehr and the Iron Division entered Riga, Latvia, after driving the Bolshevik forces out. Instead of moving eastward to pursue the retreating Bolsheviks, the German forces moved north and northeast and attacked Estonian Armored Train No. 2 south of the Latvian town of Cesis on 5 June 1919. The Germans then advanced on Cesis and attacked the Estonian-Latvian forces holding the town. After three days of fighting, the Germans took control of the town. The Allied military missions pressured the Estonians and Germans to sign an armistice on 10 June and to enter negotiations.⁴¹ During the next nine days, the Germans and Estonians concentrated forces in the area, while a fruitless series of talks took place. On 19 June, the Germans attacked and fighting raged for three days in the vicinity of Cesis. On 23 June, the Estonians launched a counteroffensive, using all units of the Estonian 3d Division simultaneously. Cesis was recaptured, and they doggedly pursued German forces southward so that they could not regroup. By 27 June, the Estonian infantry had pushed the German defensive lines back behind the Jägeli and Kiši Lakes outside Riga. The lakes were separated by only a narrow ribbon of land that made the German position easy to defend by even a small force.⁴²

Captain Pitka had put forward a plan to General Laidoner to send an amphibious force to raid Germans at Riga on 22 June 1919 to throw the Germans off balance as they faced the 3d Division to the north. Laidoner was hesitant, as he felt that the Allied powers would disapprove of such an action. The British representative, Vivan H. C. Bosanquet, quickly met with Laidoner and Pitka, warning of the political risks

³⁹ "Memorandum giving a narrative of events in the Baltic States for the time of the Armistice, November 1918 up to August 1919," ADM 116 1864, United Kingdom National Archives, Kews; and "German Troops in Baltic States," *Times of London*, 12 June 1919, 14.

⁴⁰ The term *putsch* refers to an attempt to overthrow a government or a coup d'état. It was first used in English just before the Kapp Putsch of 1920, when Wolfgang Kapp and his right-wing supporters attempted to overthrow the German Weimar government. These events were quite common in the German political environment. Adolf Hitler attempted a *putsch* (a.k.a. the Beer Hall Putsch), though he ultimately gained control of the government by other means.

⁴¹ "Military Activity on the Front of the Estonian Republic for the Period of 3rd–10th June 1919," FO 608/191, United Kingdom National Archives, Kews; *Laiaropaline Soomusrong N2 Eesti Vabadussõjas* [Broad-gauge Armored Train N2 in the Estonian Independence War] (Stockholm, Sweden: LR Soomusrong N2 Soprusuning Rootsis, 1959), 13; and "Estonian Advance," *Times of London*, 26 June 1919, 14.

⁴² "Caledon at Libau 30th June 1919 Report on the Situation in Latvia," ADM 116, 1864, United Kingdom National Archives, Kews; and *Eesti Vabadussõda, 1918–1920*, vol. II, 178–87.

(e.g., civilian casualties, destroying an anti-Bolshevik force, etc.), yet he gave his tacit approval and the plan went into motion.⁴³ The destroyer *Vambola* (1915) immediately departed for the Gulf of Riga to support the 3d Division with naval gunfire on the north Latvian coast, and on 24 June the gunboat *Lembit* departed Tallinn for Kuresaare on Saaremaa to put the Irben Strait, the main entrance into the Gulf of Riga, under surveillance. On 26 June 1919, the rest of the Estonian naval force got underway from Tallinn for the Gulf of Riga, consisting of the destroyer *Lennuk*, the minesweepers EML *Olev* (1919) and *Kalev* (1916), and the icebreaker *Tasuja* (1912). The *Vambola* and *Lembit* would rendezvous with the other vessels in the Gulf of Riga.⁴⁴

Operating in the relatively distant Gulf of Riga was a difficult logistical task because of the need to refuel while underway and the limited space aboard the vessels to carry ammunition and stores. This had some benefits as Germans did not believe that the Estonians could project a sizable naval force as far as Riga. The *Tasuja* towed a large barge loaded with ammunition and fuel to support the naval force. On the night of 1 July 1919, Pitka, with his naval force on station off Riga, received a radiogram from Laidoner in Tallinn stating that infantry attacks would begin at 0200 on 2 July to take the north suburbs of Riga. Laidoner requested that the naval force simultaneously begin operations to the south of Riga to take the German-held fortifications of Daugavgriva (Dünamünde) that guarded the entrance to the harbor. Pitka gave the necessary orders, and at 0330 on 2 July, the naval force began moving toward the mouth of Daugava River. After successfully silencing the German batteries at Daugavgriva with naval gunfire, the *Lembit* and *Lennuk* sent launches ashore with landing parties of about 20 fighters. They found that the Germans had retreated, abandoning their river flotilla. A group of Latvians told the Estonians that the Germans had forced them to serve in their now-abandoned river flotilla. The Estonians took over the armed river vessels *Rudolf Kerkovius*, the *O, Pavel*, and others (figures 29 and 30). The landing party quickly readied and boarded the three best vessels, and with Estonian crews they made their way upriver to attack the German battery at Bolderaja. The river vessels landed the Estonian sailors there, where a skirmish took place between the sailors and the German artillerymen resulting in the Germans surrendering or fleeing. The Estonians took a number of prisoners and one seriously wounded German soldier back to the *Lennuk*.⁴⁵ Naval operations ceased on 3 July 1919, when naval vessels received a radio message that an armistice had been signed between the Estonians and Germans. German troops were forced to withdraw to western Latvia and the government of Karlis Ulmanis was restored to power. Pitka considered the raid on Riga to be the most successful naval operation during Estonia's independence

⁴³ Pitka, *Rajusõlmed: Mälestusi Aastatest 1914–1919*, 2d ed. [Storm Front: Memoirs of the Years 1914–1919] (Stockholm, Sweden: Free Europe Press, 1972), 196.

⁴⁴ Anderson, "An Undeclared Naval War," 63.

⁴⁵ Pitka, *Rajusõlmed*, 197. By the terms of the armistice, the Iron Division had to evacuate Latvia. The Landeswehr was put under the command of British Col Harold Alexander and served as part of the Latvian Army.



FIGURE 29
German armed river vessels captured in amphibious raid at Riga, July 1919,
including the *O* and *Rudolf Kerkovius*.
Eesti Rahvusarhiiv, Estonian National Archive, EFA.257.A.287.340



FIGURE 30
Deck gun on the *O* after capture by the Estonians at Riga, July 1919.
Eesti Rahvusarhiiv, Estonian National Archive, EFA.257.A.287.338

war. There were no Estonian casualties and the shock of unexpected naval gunfire and an amphibious raid strongly influenced the Germans to agree to an armistice.⁴⁶

FINAL OPERATIONS: AUTUMN 1919 ON THE GULF OF FINLAND

In the summer of 1919, military activity continued on Estonia's eastern frontier, though entirely outside of Estonian territory. The Russian Northern Corps flourished with an influx of supplies from the Entente Powers and expanded into the Northwest Army under the command of General Nikolay N. Yudenich, with Pskov and Jamburg as its bases of operations. The Northwest Army became independent of Estonian command. Estonian forces supported the Northwest Army mainly because of pressure from the Entente Powers, who wanted to see the Bolsheviks defeated at all costs. Estonian cooperation with General Yudenich's force ensured the goodwill of the Allied powers keeping the military supplies flowing to Estonia.

On 10 October 1919, the Northwest Army launched a major offensive from Jamburg due east of Narva toward Petrograd. The final Estonian amphibious operation was a part of this offensive. The operation was planned for the landing of 1,600 troops and four artillery pieces at Kaporje Bay, where they moved against Bolshevik positions at Krasnaya Gorka (figure 31). This operation was different from Estonia's other amphibious landings as it was a combined operation with the British. Though the stated purpose was to support the offensive of the Russian Northwest Army, the actual purpose was to have a position from where the Bolshevik Baltic fleet at Kronstadt could be immobilized, so it could not be used against Estonian or British interests.⁴⁷ Pitka was in overall command of the Estonian landing operation, and Lieutenant Colonel Karl Parts, commander of the Armored Train Division, commanded the landing force comprised of troops from different Estonian units—the Marine Assault Battalion, Armored Train No. 3 Assault Group, the Kuperjanov Partisan Battalion, the Scouts Battalion, and the Ingrian Regiment. As the operation was distant from Estonian territory, the landing force utilized volunteers from different units. The British Baltic squadron provided naval gunfire support, notably from the monitor HMS *Erebus* (I 02) with its 15-inch guns. British support of the landing operation also included cruisers, destroyers, coastal motorboats (CMBs), and Short Admiralty Type 184 seaplanes of the Royal Air Force.⁴⁸ The Estonian destroyers *Vambola* and *Lennuk* were the primary Estonian vessels in the operation as well as the steamer *Baltonia* serving as transport. The hope was to take Krasnaya Gorka rapidly with the element of surprise.

⁴⁶ "Caledon at Libau 30th June 1919 Report on the Situation in Latvia," ADM 116, 1864; and Pitka, *Ra-jusõlmed*, 172.

⁴⁷ Kari Alenius, "Ingrians in the Estonian War of Independence: Between Estonia, Russia and Finland," *Baltic Security and Defence Review* 15, no. 2 (2013): 17; and August Traksmäa, *Lühike Vabadussõja Ajalugu*, 3d ed. [A Brief History of the War of Independence] (Tallinn, Estonia: Olion, 1992), 181–82.

⁴⁸ Anderson, "An Undeclared Naval War," 70; and Paravane, "With the Baltic Squadron, 1918–1920," 710–11.

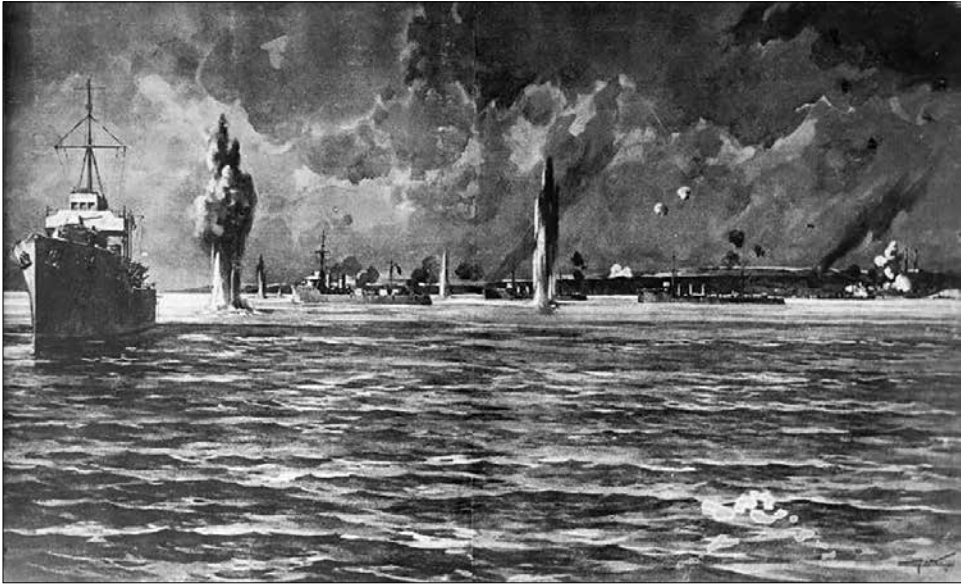


FIGURE 31

Krasnaja Gorka, a joint combined Estonian–British amphibious operation, October 1919.
Eesti Rahvusarhiiv, Estonian National Archive, EFA.114.A.291.42

The landing took place on 13–14 October 1919 at Kaporje Bay with the Estonians achieving initial shock as Bolshevik forces provided no opposition. The Estonians advanced quickly, outdistancing the covering fire of the British squadron. However, at Krasnaya Gorka, the landing force met with stiff opposition from 3,000 fighters with 12 guns in well-fortified positions. The Estonians landed reinforcements, increasing the size of the landing force to 2,200 troops, but even with additional forces they were not able to achieve a breakthrough. On the morning of 21 October, three Bolshevik destroyers—*Gavriil*, *Konstantin*, and *Svaboda*—sortied from Kronstadt and attempted to attack the amphibious group but ran into the defensive minefield that the British and Estonians had laid. All three vessels struck mines and went down with nearly all hands lost. Ultimately, the landing force was not able to break through and take Krasnaya Gorka. With the failure of the Northwest Army’s offensive and after consultation with the British military mission group and Admiral Sir Walter H. Cowan, commander of the British Baltic Squadron, Pitka and Laidoner agreed to reembark the landing force from 2–9 November 1919. The operation cost the Estonians 41 dead and 278 wounded.⁴⁹

⁴⁹ Cdr A. W. S. Agar, “Naval Operations in the Baltic,” *RUSI Journal* 73, no. 492 (February 1928): 667; Geoffrey Bennett, *Freeing the Baltic* (Edinburgh, UK: Birlinn General, 2001), 183–87; *Estonian War of Independence, 1918–1920*, 39; and Maide, *Ülevaade Eesti Vabadussõdast, 1918–1920*, 411–12.

The failure of the Northwest Army dashed Allied hopes of overthrowing the Bolshevik government. The Allied governments now accepted the Estonian desire to enter peace negotiations with the Bolsheviks. The Bolsheviks were also anxious to end the war as well, although on their own terms. The Estonian and Bolshevik governments agreed to open peace talks at Tartu, Estonia, on 5 December 1919. Despite the peace talks beginning, the fighting continued unabated as the Bolshevik political leadership commanded their army to occupy Narva at any cost. These attacks were repeatedly repulsed with heavy losses. On 30 December 1919, the commander of the 7th Red Army reported to the Bolshevik High Command that their units could no longer continue offensive action. The following day, the Bolshevik peace delegation agreed to an armistice ending the fighting. The armistice came into effect on 3 January 1920 and the final peace treaty was signed between Estonia and Bolshevik Russia on 2 February 1920.⁵⁰

CONCLUSIONS

Amphibious maneuver or the ability to conduct joint operations proved of vital importance for the Estonians in the face of often more numerous enemy forces. A good part of the success of the operations can be attributed to the leadership and organizational abilities of Captain Pitka. Admiral Sir Cowan stated that Pitka had “considerable energy and character although his technical experience was probably limited as he is a director of a salvage company and not by training a naval officer.”⁵¹ Most Estonian naval officers came from civilian maritime trades with naval experience limited to being mobilized for Tsarist naval service at the height of World War I, with the notable exception of Captain Hermann Alexander Eduard von Salza, who had a long career in the Tsarist Navy. Captain von Salza served as the Estonian naval chief of staff overseeing base operations and support.

Lack of extensive naval service was not necessarily a negative attribute as they were not bound to doctrine or procedures and could react more flexibly to the circumstance. They were experienced mariners who could carry out complex operations in an operating environment with which they were intimately familiar. Furthermore, as a small, new organization faced with a very difficult situation, the Estonian Army and Navy were quite open to innovation. While the British Baltic Squadron provided sea control, the Estonian Navy had free use of the sea to project power, given that influencing the military situation on land also improved the success of the Estonian naval operations. Finally, where Estonian amphibious operations may represent a model for the future, the operations were conducted mainly from improvised low-cost platforms disembarking relatively small numbers of troops to locations with significant operational effect.

⁵⁰ *Estonian War of Independence, 1918–1920*, 42; and Uustalu, *The History of the Estonian People*, 191–93.

⁵¹ *London Gazette* quoted from William A. Fletcher, “The British-Soviet Naval Conflict in the Baltic, 1918–1919” (master’s thesis, San Jose State University, 1972), 90.

CHAPTER NINE

The U.S. Marine Corps and Gallipoli

Angus Murray

Amid recent discussions concerning the future of the U.S. Marine Corps, some of which border on existential crisis, academics and officers continue to mine history in search of answers.¹ As recently as 2019, the Commandant of the Marine Corps, General David H. Berger, publicly agreed with his predecessor's statement, General Robert B. Neller, that the Corps is not prepared to "meet the demands of the rapidly evolving future operating environment."² By extension, such concerns have cast doubt over whether the Marine Corps remains capable of successfully conducting large-scale amphibious operations or whether it is prepared for a future in which it is increasingly called on to do so.

In this context, the Marine Corps' current situation is reminiscent of its experience between 1919 and 1940, during the interwar period. In 2018, the following call to action was made in the Corps' *Concepts and Programs*:

By putting concepts, doctrine, organizations, tactics and capabilities to the test under stressful conditions, we will learn what works and what doesn't. . . . This is not a novel idea; it is the method used by the fleet and

¹ For recent discussions, see Leo Spaeder, "Sir, Who Am I?: An Open Letter to the Incoming Commandant of the Marine Corps," *War on the Rocks*, 28 March 2019; and Mark Folse, "Marine Corps Identity from the Historical Perspective," *War on the Rocks*, 13 May 2019.

² Gen David H. Berger, *Commandant's Planning Guidance: 38th Commandant of the Marine Corps* (Washington, DC: Headquarters Marine Corps, 2019), 2.

*fleet Marine force commanders during the interwar period that generated victory in World War II.*³

Specifically, the authors refer to the Marine Corps and U.S. Navy fleet exercises conducted throughout the 1930s, during which Marines and their equipment were tested in a series of exercises. Still, these exercises were limited by budget cuts and the Great Depression, meaning that recruits and landing craft would remain in short supply up until World War II.⁴ As a result, the Corps could not rely on exercises alone to estimate their amphibious capability.

Moreover, the Corps' interwar amphibious development neither began nor ended with these exercises. They were part of a development cycle that combined practical experience and amphibious theory to produce a series of landing manuals. In total, the Corps published three such manuals between 1934 and 1938, and the last of these, *Landing Operations Doctrine* (1938), Fleet Training Publication 167 (FTP 167), was the version issued to Marine Corps officers by the time the United States declared war against Japan in 1941. *Landing Operations Doctrine* served as the Marine Corps' wartime amphibious doctrine and codified 20 years of landing operations theory, experimentation, training, and development. This manual was designed as a guide for Navy and Marine Corps forces conducting a landing against opposition, and its preparation throughout the interwar period not only made the Corps more prepared for landing operations than many of its allies or adversaries, but proved a critical element to victory in the Pacific theater.⁵

Furthermore, such discussions have failed to address the extent to which the Corps' use of history influenced the nature of its amphibious development during the interwar years. Indeed, beneath this developmental process lay historical foundations so robust that they would eventually form the very basis of the Corps' landing doctrine. Throughout the 1920s and 1930s, officers used British accounts of the 1915 Gallipoli campaign—the most relevant historical example available at the time—as the theoretical framework for exercises and theory, supplementing its lack of experience in conducting landing operations under wartime conditions. Margaret MacMillan, who has explored the repercussions of the use and misuse of history, observed that militaries often “take history seriously” when in need of a guide.⁶ In this instance, though it was limited by choice, the Marine Corps of the interwar period did not prove an exception to MacMillan's rule.

Marine Corps officers were effective in their use of history for three reasons.

³ *U.S. Marine Corps Concepts and Programs, 2019* (Washington, DC: Headquarters Marine Corps, 2018), 13.

⁴ Landing craft construction began in 1940. See Kenneth J. Clifford, *Amphibious Warfare Development in Britain and America from 1920–1940* (New York: Edgewood, 1983), 150.

⁵ *Landing Operations Doctrine*, FTP 167 (Washington, DC: Division of Fleet Training, Office of Naval Operations, 1938), iii.

⁶ Margaret MacMillan, *Dangerous Games: The Uses and Abuses of History* (New York: Modern Library, 2010), 150–51.

The first was the Corps' assignment to conduct amphibious operations in accordance with War Plan Orange—the U.S. interwar strategy for a naval conflict against Japan. Through this assignment, officers acquired a clarity of purpose that motivated many of them to search history for a means of successfully conducting amphibious operations. As will be demonstrated, officers such as Robert H. Dunlap, Lloyd W. Townsend, and Eli K. Cole helped the Corps establish a foundational understanding of modern amphibious warfare between 1921 and 1925. Using accounts of Gallipoli, these officers identified lessons that were as relevant to the landing exercises simultaneously conducted by the Marine Corps during this period as they were to the landing doctrine and training a decade later.

The second was the decision made by the Marine Corps schools in Quantico to establish a month-long research course on Gallipoli in 1933. Throughout the course, officers developed reports that would build on the work of their predecessors and form the basis of their amphibious doctrine. Balanced against this research, however, was the realization that officers could not rely on historical examples alone. Third, Marine Corps officers integrated their historical studies and doctrinal development with a series of realistic Fleet Landing Exercises. Evidence of this can be found throughout the Corps' developmental process, which incorporated many different types of learning and ensured that specific tactics and operational measures were refined and incorporated within *Landing Operations Doctrine*. In this manual, Gallipoli's lessons can easily be observed, but the transformative process in which officers distilled the history of a failed amphibious operation to prepare themselves for war in the Pacific is also clear.

A NEW ASSIGNMENT

The Marine Corps' development of a modern, amphibious capability began in the aftermath of World War I. Recognizing that Japan had emerged from the war as a major contender in the Pacific and a potential threat to America's Pacific territory, the U.S. military showed renewed interest in War Plan Orange and the plans were revisited. Within these war plans, the Marine Corps was assigned a new mission—one that redefined its prewar mission to establish and defend temporary naval bases as an "advanced base force."⁷ This new assignment, approved by the Joint Army and Navy Board and signed off by newly appointed Commandant Major General John A. Lejeune, became official in 1920.

*The most important function of the Marine Corps is to seize and hold temporary advanced bases in cooperation with the fleet and to defend such bases until they are relieved by the Army.*⁸

⁷ For an analysis of the development of the advanced base force, see Allan R. Millett, *Semper Fidelis: The History of the United States Marine Corps* (New York: Free Press, 1991), 267–86.

⁸ "Joint Army and Navy Action in Coast Defense, 1920," Historical Amphibious Files (HAF)139; U.S. Department of War/Navy Department: Joint Army and Navy Action in Coast Defense (1920), box 6, Historical Resources Branch, Marine Corps History Division, Quantico, VA.

The concurrent publication of *Advanced Base Operations in Micronesia* (1921), Operations Plan 712, the prophetic study by Lieutenant Colonel Earl H. Ellis, further clarified the scope and purpose of the Corps' newly assigned function. Within the Micronesia study, Ellis provided the Marine Corps with a tangible roadmap toward fulfilling an amphibious role, identifying the geographical limitations of the Pacific and emphasizing the necessity of special training in landing operations. In short, Ellis demonstrated at a hypothetical level the value of "Marines with Marine training."⁹

Motivation aside, the Corps lacked the knowledge and the experience to conduct the kind of amphibious operation that it suspected a war against Japanese forces might demand. Although the Corps could boast of a legacy in excess of 100 years of conducting landings by 1919, many of the technologies introduced during the First World War had drastically changed the operational and tactical environment.¹⁰ Moreover, the Corps' most recent wartime experience had been in France, fighting inland, in a role indistinguishable from that of the U.S. Army. World War I had few amphibious offerings and, in terms of the kind of large-scale, opposed landing involving modern technology that the Marine Corps hoped to conduct, there was but one example: the Dardanelles (Gallipoli) campaign of 1915 (figure 32). Thus, the Marine Corps would have to study a British defeat to prevent one of their own.

Colonel (later General) Robert H. Dunlap was perhaps the first Marine to find value in the military lessons of the Gallipoli landings. Dunlap, who had been involved in developing War Plan Orange and would later serve as the commanding officer of the Marine Corps Schools at Quantico, published an article on the campaign in the *Marine Corps Gazette* in September 1921.¹¹ Here, Dunlap drew on the work of British Army officer Sir Charles E. Callwell and encouraged other members of the U.S. military to study Gallipoli on the basis that it was "a campaign which appears filled with lessons to ourselves."¹² One relevant lesson, suggested Dunlap, was that World War I had demonstrated the importance of developing "an organized body of soldiers capable of prosecuting the various phases of a campaign . . . where the lessons of like phases have been carefully studied, absorbed and applied in training."¹³

Dunlap conceived that the Marine Corps could fulfill its future role in "accompany[ing] the Fleet" by conducting amphibious operations against "hostile shores."¹⁴ Dunlap also identified specific issues that arose throughout the Gallipoli campaign

⁹ Maj Earl H. Ellis, *Advanced Base Operations in Micronesia*, Operations Plan 712 (Washington, DC: Headquarters Marine Corps, 1992), 39–41.

¹⁰ For a chronology of the landings the Marine Corps conducted prior to the interwar period, see Capt Harry A. Ellsworth's 1934 monograph, *One Hundred Eighty Landings of United States Marines, 1800–1934* (Washington, DC: History and Museums Division, Headquarters Marine Corps, 1974).

¹¹ Leo J. Daugherty III, *Pioneers of Amphibious Warfare, 1898–1945*, Profiles of Fourteen American Military Strategists (Jefferson, NC: McFarland, 2009), 205–7.

¹² Col Robert H. Dunlap, "Lessons for Marines from the Gallipoli Campaign," *Marine Corps Gazette* 6, no. 3 (September 1921): 252.

¹³ Dunlap, "Lessons for Marines from the Gallipoli Campaign," 237.

¹⁴ Dunlap, "Lessons for Marines from the Gallipoli Campaign," 237.



FIGURE 32

Map of the Dardanelles drawn by G. F. Morrell, 1915. The map shows the Gallipoli peninsula, the west coast of Turkey, and the location of frontline troops and landings.

State Library of New South Wales, catalog record b3001973-S2

and argued that the Marine Corps was likely to face similar ones. These lessons would later reflect many of the issues identified in the development of Corps doctrine in the 1930s and included the initial landing against defended coastal positions, providing land forces with adequate supplies, evacuating and caring for wounded, cooperation between the Army and the Navy, and the coordination of naval gunfire.

A year later, Navy commander Lloyd W. Townsend delivered a lecture to officers at the Marine Corps Schools that reiterated the value of Gallipoli's lessons to the Corps.¹⁵ Townsend first sketched the strategic context from which the Gallipoli campaign emerged, before addressing each phase in chronological order and drawing out any lessons he considered relevant to the Marine Corps' future. For example, Townsend highlighted that the decision to use readily available "ships' boats," or utility boats, rather than purposely designed landing craft, resulted in "severe and unnecessary losses."¹⁶

From Townsend's conclusions, it is also clear that the dangerous result of this operational decision was compounded by strategic decisions made earlier in the campaign. He placed particular emphasis on the fact that British forces made no attempt

¹⁵ Cdr L. W. Townsend, USN, 1922 Lecture, 5425-120, box 1, folder 2, Gallipoli Collection, Historical Resources Branch, Marine Corps History Division, Quantico, VA, hereafter Townsend lecture.

¹⁶ Townsend lecture.

to occupy the peninsula early in the campaign (February 1915), despite sending landing parties ashore to complete the destruction of Turkish emplacements. Although General Sir Ian S. M. Hamilton had not fully assembled the Mediterranean Expeditionary Force by February, Townsend also noted that during this same period the peninsula was most lightly defended. Subsequently, this unwillingness among decision makers to commit to the land-based portion of the Gallipoli campaign in its initial phases, Townsend argued, ensured a “golden opportunity” was lost.¹⁷

Moreover, this action was just one of a series of “preliminary, but ineffective operations,” which Townsend argued signaled to Turkish forces what to expect and gave them time to fortify landing areas. Thus, while cognizant of other factors, Townsend recognized that overly cautious strategic decisions ensured British and Allied forces faced “terrific opposition” during the landings in April 1915, and subsequently gained little ground and suffered horrendous casualties. In his concluding comments, Townsend ensured that seizing a “lightly defended” foothold formed an integral and initial part of the ideal amphibious operation that he visualized U.S. forces conducting. Many of the elements of Townsend’s hypothetical scenario resemble some of the core training elements of U.S. amphibious landings. These included conducting thorough aerial reconnaissance, detailed landing plans, the use of specialized landing craft, and fluid communication and cooperation between the Navy, Army, and Air Force.¹⁸

The Marine Corps’ study of landing operations was not confined to theoretical analyses of the campaign either, as some of the same individuals promoting Gallipoli’s value were also involved in practical exercises being conducted by the U.S. Navy. Between January and April 1922, the first “Fleet Problem” was conducted in the Caribbean at Guantánamo and Culebra, though the first landing exercise (in Panama) would not occur for another 12 months.¹⁹ In December 1923, a few weeks before his brief appointment as the commanding general of the Marine Corps Expeditionary Force during an exercise at Culebra, Brigadier General Eli K. Cole solemnly warned students that

*the Gallipoli campaign, in my opinion . . . shows beyond any other of which I know the disastrous [effects] that are bound to flow from failure to appreciate or to apply the principles that a study of . . . past campaigns always shows are necessary for success.*²⁰

Unfortunately, his warning neither prevented the Marines under his command from landing on the wrong beach and becoming lost once they had alighted, nor did

¹⁷ Townsend lecture.

¹⁸ Townsend lecture.

¹⁹ “List of Fleet Exercises, 1922–1942,” box 1, folder 1, Exercises Collection (COLL/4118), Historical Resources Branch, Marine Corps History Division, Quantico, VA.

²⁰ BGen Eli K. Cole, 6 December 1923 Lecture, 5425-160, box 2, folder 5, Gallipoli Collection, Historical Resources Branch, Quantico, VA.

it prevent logistical problems aboard the ships or enhance the effectiveness of the Navy's supporting gunfire.²¹ Although officers had learned many harsh lessons, the landing exercise on Culebra demonstrated the "complexities" of an amphibious landing to the Corps.²² The exercise also provided Cole and others with the opportunity to test the new Troop A Barge or "beetle" artillery lighter, a craft of which there was "exactly one" and that came with its own host of problems.²³ The Beetle was based on a motorized boat of the same name used by the British during the successful August landings at Suvla Bay, Turkey, in 1915. It was later described by retired Lieutenant General Victor H. Krulak as "hard to control" and lacked both "surf capability" and the ability to carry motor vehicles. Krulak also observed that the protective steel canopy was more likely to drown the occupants than shield them from small-arms fire; and given that the craft capsized and sank 13 years later while en route to another exercise, this was a fair—perhaps even prophetic—observation.²⁴ While officers no doubt considered the exercise at Culebra a challenging experience, the Corps had taken an important step toward the development of a modern amphibious capability by testing its theoretical observations in the field. As early as 1924, the lessons of the Gallipoli campaign had helped guide such a step.

In the spring of 1925, the last of the Fleet Problems was conducted in Hawaii, and the 1,500 Marines involved were again commanded by Brigadier General Cole.²⁵ Then 1st Marine Brigade chief of staff, Smith (one of several Marines described as the "father of amphibious warfare"), later recalled that the 1925 exercise was "based upon Gallipoli and its related problems."²⁶

It is worth noting at this point that, despite the growing interest, the Corps' pursuit of an amphibious capability was not an entirely unified affair. Some Marines, for example, believed their future lay in "small wars" or counterinsurgency operations, rather than landing operations. This division persisted throughout the interwar period, although some officers, such as then assistant commandant of Marine Corps Schools Colonel Ellis B. Miller, tried to find middle ground by arguing in favor of fulfilling both roles.²⁷ Despite this and the deployment of Marines to Central America and the Caribbean in a series of occupational roles during this period, which would impact the Corps' ability to conduct exercises well into the 1930s, the Marine Corps

²¹ Daugherty, *Pioneers of Amphibious Warfare, 1898-1945*, 187.

²² Daugherty, *Pioneers of Amphibious Warfare, 1898-1945*, 187-89.

²³ The Beetle Boat, or Kelly Boat, was named for BGen Cole, who convinced the Navy to build it. Daugherty, *Pioneers of Amphibious Warfare, 1898-1945*.

²⁴ LtGen Victor H. Krulak (Ret.), *First to Fight: An Inside View of the U.S. Marine Corps* (Annapolis, MD: Naval Institute Press, 1984), 89-90.

²⁵ "List of Fleet Exercises, 1922-1942."

²⁶ Gen Holland M. Smith and Percy Finch, *Coral and Brass* (New York: Curtis Publishing, 1949), 79.

²⁷ Folse, "Marine Corps Identity from the Historical Perspective"; Keith B. Bickel, *Mars Learning: The Marine Corps' Development of Small War Doctrine, 1915-1940* (Boulder, CO: Westview Press, 2000), 205-13; and E. B. Miller, "The Marine Corps in Support of the Fleet, 1933," HAF 40, Historical Resources Branch, Marine Corps History Division, Quantico, VA.

remained committed to the development of an amphibious capability. Officers such as Dunlap, Townsend, and Cole used the lessons they had extracted from their studies of Gallipoli to strengthen this commitment and build the Corps' understanding of modern landing operations. As a result, they established a theoretical and practical basis for the amphibious doctrine the Corps would develop in the 1930s.

By basing exercises such as the 1925 Fleet Problem V on Gallipoli, officers had ensured the campaign would remain central to their understanding of landing operations. Indeed, while the next large-scale, practical exercise would not take place again until 1931, rebranded as the first of the Fleet Landing Exercises, theoretical lessons continued unabated in the Service's classrooms. Between 1924 and 1930, though the total course hours for senior officers may have decreased (from 1,100 hours to 939 hours per year), the time dedicated to teaching Marine Corps officers about amphibious operations increased from 2 to 138 hours. Put in different terms, this represented an increase from 0.2 percent to 15 percent of the Marine Corps Schools yearly curriculum.²⁸ Thus, although disagreement between officers would continue to complicate the Corps' future well into the 1930s, for some, their path was clearly an amphibious one.

GALLIPOLI IN THE CLASSROOM

In 1933, the Corps' most meaningful attempt to learn from Gallipoli's lessons began with a directive from the Marine Corps Schools, instructing Lieutenant Colonel Edward W. Sturdevant to lead a course using the *Gallipoli* volume of Britain's *Official History* of the First World War.²⁹ Growth of public interest in the campaign in the 1920s, in part, made such a focused research course a reality for the Marine Corps. Several published accounts of Gallipoli appeared during this period, some of which were used by Marine Corps Schools. Such volumes included Winston Churchill's *The World Crisis, 1915* (1923), the memoirs of German general Otto Liman von Sanders (1920), and U.S. Navy captain William D. Puleston's *The Dardanelles Expedition: A Condensed Study* (1926).³⁰

None of these accounts, however, would wield more influence over the Corps than Brigadier General Cecil F. Aspinall-Oglander's *Gallipoli*, volume 2, *Official History of the Great War Other Theatres* published in 1929. The importance of this work to the Corps' study of Gallipoli cannot be overstated, as it was the primary research material

²⁸ The total number of hours fluctuated each year, peaking in 1926 at 1,200 hours. A summary of the course hours can be found in Appendix A of "A Brief Historical Sketch of the Development of Amphibious Instruction and Doctrine at the Marine Corps School during the Years Prior to WWII, 1951," HAF 741, Historical Resources Branch, Marine Corps History Division, Quantico, VA.

²⁹ "Instruction Memorandum No. 10, 1932-1933," box 1, folder 9, Military Operations: Gallipoli, vol. I, BGen C. F. Aspinall-Oglander, 1929, Gallipoli Collection, Historical Resources Branch, Marine Corps History Division, Quantico, VA.

³⁰ The Corps also held accounts published prior to the 1920s, such as John Masefield, *Gallipoli* (New York, Macmillan, 1917). See "Marine Corps Schools Gallipoli Bibliography, 1935-1936," 5425-160, box 4, folder 10, Gallipoli Collection, Historical Resources Branch, Marine Corps History Division, Quantico, VA.

for the officers who attended the Gallipoli course in 1933. As late as 1936, the number of copies owned by the Marine Corps constituted almost one-half of the school's resources on Gallipoli, and an annotation in the school's bibliography noted that it "should be self-required reading for every marine officer."³¹

Sturdevant designed the Study of the Gallipoli Campaign, or MH-2 (its official designation), to run for a month between 3 March and 5 April, during which time officers were expected to form committees, each focused on one of the six phases of the campaign. In summary, officers were

*expected to study, not merely the facts of the Gallipoli Campaign, but those facts in relation to strategy or tactics of the phase of the campaign assigned them; that is, if the military or naval activity under consideration succeeded or failed, what was the cause of the success or failure; what principles or methods are illustrated and what lessons can be derived from the campaign of value to the Marine Corps.*³²

Essentially, officers were required to identify the lessons of Gallipoli and present a report of their findings to Sturdevant once the course concluded. Although the course reveals very little about Sturdevant, what remains of the course he designed demonstrates that he was convinced of the campaign's value to the Corps and was capable of guiding the "nucleus of gifted officers" stationed at Quantico during this period toward its most crucial lessons.³³ For example, services of supply, studied primarily by the students in Committee VI (although also in part by Committee I), evaluated the vast array of logistical issues that the British dealt with during the Gallipoli campaign. Committee VI's report was extensive, analyzing the British services of supply from procurement to distribution. This included covering everything from the adequacy of supply of items such as water, food, and ammunition to the loading of materials into ships, the movement of supplies from the ship to the shore, their storage on the beach, and the subsequent movement from beach to the troops (figure 33).³⁴

Officers paid particular attention to water supply. The British official history noted that water storage and supply was a major concern during the preparation of the campaign and throughout its prosecution. What began as merely an "anxiety" de-

³¹ "Marine Corps Schools Gallipoli Bibliography, 1935-1936."

³² "Instruction Memorandum No. 10, 1932-1933."

³³ Joseph H. Alexander, *Storm Landings: Epic Amphibious Battles in the Central Pacific* (Annapolis, MD: Naval Institute Press, 1997), 13.

³⁴ "Report of Committee No. VI, 5 April 1933," box 1, folders 7 and 8, Gallipoli Collection, Historical Resources Branch, Marine Corps History Division, Quantico, VA.



FIGURE 33

Landing at Gallipoli by Charles Dixon, 1915, New Zealand troops were part of the Allied invasion force that landed at what soon became known as Anzac Cove.

Archives New Zealand

veloped into a critical shortage less than a month into the campaign.³⁵ So dire had the water situation become that Field Marshal Sir William R. Birdwood is cited as almost forcing the Australian and New Zealand Army Corps (ANZAC) soldiers under his command to “abandon [a] major part of [the] programme for landing.”³⁶ The impact of this lesson was not lost on Captain Chas B. Hobbs, who suggested that a “shortage of water and ammunition” was a “primary cause of failure [in the] Anzac area,” a critical mistake he urged the Corps to learn from.³⁷

Tracing this lesson through to its incorporation into Marine doctrine, Corps officers did not ignore the supply management issues Britain faced at Gallipoli. In the *Tentative Landing Operations Manual* (1935) and *Landing Operations Doctrine*, attention was given to every stage of the logistics process and included loading and unloading

³⁵ C. F. Aspinall-Oglander, *Military Operations, Gallipoli*, vol. I, *Inception of the Campaign to May 1915: History of the Great War Based on Official Documents by Direction of the Historical Section Committee of Imperial Defence* (London: William Heinemann, 1929), 121–22; and C. F. Aspinall-Oglander, *Military Operations, Gallipoli*, vol. 2, *May 1915 to the Evacuation: History of the Great War Based on Official Documents by Direction of the Historical Section Committee of Imperial Defence* (London: William Heinemann, 1932), 262–63.

³⁶ Aspinall-Oglander, *Military Operations, Gallipoli*, vol. 2, 117, 157.

³⁷ “Report of Committee No. VI, 5 April 1933,” folders 7 and 8.

plans to expedite distribution, as well as a system for the establishment of “supply dumps” to prevent beaches from becoming crowded.³⁸ Water supply was specifically listed as being of “paramount importance,” the manual warning readers that “an interruption of the water supply even for a short period will probably result in a breakdown of the operation.”³⁹ Under the subsection for medical service, Gallipoli is even cited within the manual as a reference for the expected number of casualties during a landing.⁴⁰

There was, of course, the overarching issue that officers had drawn such lessons almost exclusively from Aspinall-Oglander’s *Official History of the Great War Other Theatres*, though this was something Sturdevant had anticipated from the beginning. Sturdevant’s initial instructions warned officers that the use of a single source—even one as “authentic,” “thorough,” and “accurate” as the official history—complicated their historical inquiry through its “colored” evaluation of the campaign.⁴¹ Sturdevant had attempted to correct the imbalance between British, German, and Turkish accounts before the course had begun, but to no avail. Reliable Turkish accounts were considered nonexistent.⁴² Despite its inclusion in the reading material, the instructors did not even wholly trust Liman von Sanders’s account; and so limited was the scope of Australia and New Zealand’s civilian writers, that their accounts were considered untrustworthy.⁴³ Given that the Corps owned a copy of the 12-volume set of the *Official History of Australia in the War of 1914–1918* (1941–42), it is clear that this criticism was leveled primarily at Australian official historian Charles Bean. Considering that Bean’s account focuses exclusively on the actions of ANZAC soldiers landing at Suvla Bay, this was likely of limited use to officers studying the campaign at the operational level. For much of their work, Marine Corps officers were, by circumstance, reliant on British sources.

While such an intense focus on Gallipoli was of great value to the Corps, the campaign could not furnish examples for every aspect of a landing, and officers appeared cognizant of this fact. Aviation was conspicuously absent from the course, a technology which played a greater role on the western front than at Gallipoli, but had an enormous impact during the Second World War. One committee chairman made

³⁸ Sections 1–5 of *Landing Operations Doctrine* deal specifically with these. See *Landing Operations Doctrine*, 201–26.

³⁹ “Tentative Landing Operations Manual, 25 May 1935,” box 9, HAF 180, Coll/3634, Historical Resources Branch, Marine Corps History Division, Quantico, VA; and *Landing Operations Doctrine*, 223–25.

⁴⁰ “Tentative Landing Operations Manual, 25 May 1935”; and *Landing Operations Doctrine*, 231.

⁴¹ “Lecture on Gallipoli Course Structure by Lt. Col. E. W. Sturdevant, 1933,” box 3, folder 10, Gallipoli Collection, Historical Resources Branch, Marine Corps History Division, Quantico, VA.

⁴² The letter from LtCol Sherman Miles to LtCol E. W. Sturdevant can be found in “Gallipoli Course Correspondence from Lt. Col. E. W. Sturdevant, 10 February 1933,” box 3, folder 9, Gallipoli Collection, Historical Resources Branch, Marine Corps History Division, Quantico, VA.

⁴³ “Lecture on Gallipoli Course Structure by Lt. Col. E. W. Sturdevant 1933.”

precisely this complaint, insisting that observation planes would doubtless appear in future operations and that the course should include such a topic, even if only as a counterfactual scenario.⁴⁴

In 1934, Captain Harold D. Campbell noted in a conference speech that aviation technology “progressed too rapidly to write up [the] subject strictly in accordance with present day War Plans.”⁴⁵ In other words, unlike the other components of a landing operation—ones with which Marine Corps officers could draw historical parallels—the pace of aviation’s development during this period required a different approach. Indeed, Campbell’s Aviation Committee (formed independently of the Gallipoli course) was hesitant even to commit to writing which branch would provide air support.⁴⁶ Campbell also took the time to explain how a lack of reference material and Marine Corps-maintained aviation equipment led the committee to establish a minimum acceptable standard for air support, rather than determine the maximum amount the Corps could commit. This approach was applied directly to the role of Marine Corps or U.S. Navy aircraft in neutralizing an enemy air force or providing support to ground troops during the landing.⁴⁷

While officers like Campbell might have felt that their section of the doctrine was at that stage indistinct, Marine Corps pilots were the beneficiaries of something even more valuable than peacetime exercises: actual combat experience.⁴⁸ During the interwar period, Marine Corps pilots deployed to Santo Domingo, Haiti, and Nicaragua, where they developed “radical new tactics” in aviation long before the first draft of a landing manual was drafted.⁴⁹ While these tactics were not specifically devised to support a landing operation, there was considerable overlap between the Corps’ development of dive-bombing, aerial reconnaissance, transport, and furnishing “close air support” to ground troops in Central America, and the tasks eventually assigned to pilots in *Landing Operations Doctrine*.⁵⁰

By 1933, the Corps partly relied on its studies of Gallipoli to substitute for a lack of actual combat experience in conducting modern large-scale landing operations. This is evident from the incorporation of lessons in logistics, such as the difficulty of

⁴⁴ “Gallipoli Course Study/Recommendations, 1933,” box 3, folder 9, Gallipoli Collection, Historical Resources Branch, Marine Corps History Division, Quantico, VA.

⁴⁵ “Gallipoli Course Study/Recommendations, 1933.”

⁴⁶ The conference proceedings are lengthy. Campbell’s comments can be found in HAF 41: “Proceedings for Conference Held at the Marine Corps Schools, Quantico, Va., on Tuesday, January 9, 1934 for the Purpose of Discussing, Approving, or Commenting on the Various Headings and Sub-Headings of the Tentative Landing Operations Manual, Prepared by the Marine Corps Schools, and What It Should Include,” Historical Resources Branch, Marine Corps History Division, Quantico, VA, 41-44, hereafter Conference proceedings.

⁴⁷ Conference proceedings.

⁴⁸ Campbell bluntly described it as the stuff of “fanciful dreams.” Conference proceedings.

⁴⁹ LtCol Kenneth J. Clifford, *Progress and Purpose: A Developmental History of the U.S. Marines, 1900-1970* (Washington, DC: History and Museums Division, Headquarters Marine Corps, 1973), 38-39.

⁵⁰ Clifford, *Progress and Purpose*.

supplying water to ANZAC troops throughout the campaign, into the final version of the landing manual. Simultaneously, however, officers were cautious with their studies and were not blinded by their own use of history to the emergence of new forms of warfare. While the use of aviation technology to support a landing lacked a direct historical parallel, officers synthesized different forms of evidence, such as their experience flying under wartime conditions, with their use of history to establish a more coherent picture of how they might conduct a modern amphibious operation.

TRANSFORMING GALLIPOLI'S LESSONS INTO DOCTRINE

Although the Gallipoli course might have served the Corps as the primary vehicle for extracting lessons from historical accounts of the campaign, it was not the only one. Colonel Ellis Miller's 1933 monograph, *The Marine Corps in Support of the Fleet*, demonstrated that the course had not dissuaded individual officers from independently studying Gallipoli as their predecessors had done in the early 1920s.⁵¹ In Miller's study, for example, he outlined what he saw as the major elements of the tactical plan for a landing operation, using key lessons from the Gallipoli campaign as examples. Miller claimed that one such lesson, of which "Gallipoli furnished an excellent example," was that secondary landings or demonstrations (perhaps more easily understood as a diversionary show of force) without a clear purpose risked a dispersion of forces across too many fronts, potentially weakening an attack. Likewise, failing to hold strong reserves to "take advantage of success gained by the general plan" might also cause the landing to fail.⁵² One can trace elements of Miller's ideas through to the *Tentative Manual for Landing Operations* (1934). Under section 2-11 (The Main Landing), the manual instructed that holding a large reserve was necessary for exploiting success, particularly when the tactical plan consists of multiple, secondary landings. Meanwhile, this section warns that secondary landings and demonstrations should not be conducted if they deprive the main landing of "necessary troops, supporting ships, and ammunition."⁵³

A more direct example of the connection between extracurricular study and the Corps' doctrinal development is evident from the fierce commitment made by key officers (who did not attend MH-2) to incorporate Gallipoli's naval gunfire lessons into an amphibious operation. Therefore, though it is unfortunate that Committee IV's report is the only one missing from the Marine Corps archives, it may be of little consequence. Marine Corps officers—and even one particularly dedicated U.S. Navy officer—devoted a decade's worth of attention in and out of the classroom to the topic. Not only does their work make an analysis possible regardless of whether officers

⁵¹ "The Marine Corps in Support of the Fleet, 1933," HAF 40, Historical Resources Branch, Marine Corps History Division, Quantico, VA.

⁵² "The Marine Corps in Support of the Fleet, 1933."

⁵³ "Tentative Manual for Landing Operations, 1934," HAF 49, Historical Resources Branch, Marine Corps History Division, Quantico, VA.

studied Gallipoli through MH-2 or not, but the pedagogical process for distilling the campaign's lessons and integrating them into doctrine appears to have been much the same.

Among a myriad of military lessons, Britain's experience at Gallipoli demonstrated to the Corps the necessity of softening up a defended beach to enhance the success of a landing operation. Yet, while Gallipoli may have demonstrated to the Corps that it was necessary, the actual use of naval gunfire during the campaign was not particularly useful in determining how much gunfire was enough. This was the view held by a board formed in 1931 at Quantico to study naval gunfire in support of landings, which concluded that the scarce historical material available to them was not enough on which to "base definite conclusions."⁵⁴ Their recommendation was for the Navy to conduct actual gunnery practice, in coordination with the Marine Corps' landing exercises.

The Coast Artillery School in Fort Monroe, Virginia, agreed with the board's findings, noting that despite a "dearth of historical examples," Gallipoli was the "one and outstanding example" of an opposed landing.⁵⁵ Feedback from the Army Command and General Staff College in Fort Leavenworth, Kansas, was equally positive.⁵⁶ Evidently convinced by their recommendations, Navy commander H. A. Flanigan informed Major Charles D. Barrett (a member of the board) that they would incorporate naval gunfire support exercises in future fleet training until they got "all the data on the subject that [they] desire."⁵⁷ Flanigan further advised Barrett that early plans for "Advanced Practices 'C' and 'D'" were drafted based on the findings of his report and would likely take place between 1931 and 1932.⁵⁸ Thus, while the U.S. military could not extract evidence from studies of Gallipoli that revealed how to employ naval gunfire, such studies still demonstrated its necessity. The practical result of this discussion was "Advanced Practice 'Cast'," scheduled for 11 January 1932. Orders issued by Admiral Luke McNamee (then-commander of the battle force) described the advanced practice as a joint exercise designed to fulfill several objectives, including testing the accuracy of the gunfire, determining how close troops could approach behind

⁵⁴ "Correspondence from the Special Board to the Commandant, 19 February 1931," HAF 66: Naval Gunfire in Support of Landings, Historical Resources Branch, Marine Corps History Division, Quantico, VA.

⁵⁵ "Letter from Major T. C. Cook, C. A. C. to Major J. B. Crawford, Coast Artillery School, 21 April 1931," HAF 71: Correspondence: Maj T. C. Cook, C. A. C., to Maj J. B. Crawford, Coast Artillery School-Comments on Navy Board Report "Naval Gunfire in Support of Landings," Historical Resources Branch, Marine Corps History Division, Quantico, VA.

⁵⁶ "Letter from Major C. D. Barrett to Flanigan, 15 October 1931," HAF 70: Correspondence: Maj C. D. Barrett to Cdr H. A. Flanigan [U.S. Navy], C. A. C., to Maj J. B. Crawford, Coast Artillery School-Comments on Navy Board Report "Naval Gunfire in Support of Landings," Historical Resources Branch, Marine Corps History Division, Quantico, VA.

⁵⁷ "Letter from H. A. Flanigan to Charles D. Barrett, 23 June 1931," Box 1, Correspondence: Miscellaneous Exercises Collection (COLL/4118), Historical Resources Branch, Marine Corps History Division, Quantico, VA, hereafter letter from Flanigan to Barrett.

⁵⁸ Letter from Flanigan to Barrett.

the shelling, and developing instruments and doctrine to standardize the process.⁵⁹ Although the Navy appeared outwardly committed to the process, Lieutenant (later Rear Admiral) Walter C. Ansel, Barrett's understudy on the topic, recalled things differently.

Years afterward, Ansel claimed that the advanced practice had "led to no upsurge of Navy engrossment and fire for Landing Operations" at the time.⁶⁰ By way of contrast, Ansel became more deeply involved and worked with Barrett to draft chapters on naval gunfire for the projected *Landing Doctrine Manual*.⁶¹ Given that Barrett's contemporaries estimate he individually wrote some two-thirds of the first version of the manual, it seems likely that Ansel's work was just as instrumental.⁶² Primarily, these drafts relied on a method that converted World War I artillery data for use with naval guns, the numbers for which Barrett possibly retrieved during his time at the Ecole de Guerre in Paris.⁶³ It was a rather imperfect method, and the draft demonstrates that such a method provided "a mere guess" as to how much naval gunfire might be required during a landing.⁶⁴ The draft, however, explicitly mentions Gallipoli as well. The recommendation was that naval guns should conduct short, heavy, concentrated bombardments to compensate for the comparative lack of ammunition aboard and to maximize the use of as many guns on as many ships as possible. The authors argued that this method made better use of the limited support available, maximized the strengths of naval guns, and was more effective than Britain's method of "splitting up . . . supporting ships among the beaches at Gallipoli."⁶⁵

By the time Ansel published an article on the topic in 1932, "Naval Gunfire in Support of Landings: Lessons from Gallipoli," he had set aside the land-to-naval artillery conversion method entirely in favor of using evidence from the Dardanelles campaign. Though Ansel recognized the danger of studying a single campaign, he considered it a viable alternative, or supplement, to Barrett's method.⁶⁶

⁵⁹ This is articulated in a series of documents that Ansel donated to the archives in the 1960s. See "Advanced Practice 'Cast': Battleships Supporting a Landing, ca. 1931," HAF 601, folder E, Historical Resources Branch, Marine Corps History Division, Quantico, VA.

⁶⁰ "Letter from Walter Ansel to Professor Richard S. West, USNA, 2 April 1964," HAF 601, folder A, Historical Resources Branch, Marine Corps History Division, Quantico, VA.

⁶¹ "Memorandum concerning Dispensation of 'General Discussion of Landing Operations and Ship Gunfire Support' drafts, 1961-1962," HAF 601, folder A, Historical Resources Branch, Marine Corps History Division, Quantico, VA.

⁶² Clifford, *Amphibious Warfare Development in Britain and America from 1920-1940*, footnote on 104.

⁶³ "General Discussion of Landing Operations, 1930-1931," HAF 601, folders A and B, Archives Branch, Marine Corps History Division, Quantico, VA.

⁶⁴ The limitations can be found in section B of Ansel's draft "Naval Gunfire Support of Landing Operations (1932)," HAF 601, folder C, Historical Resources Branch, Marine Corps History Division, Quantico, VA.

⁶⁵ "Naval Gunfire Support of Landing Operations (1932)."

⁶⁶ Lt Walter C. Ansel, USN, "Naval Gunfire in Support of Landings: Lesson from Gallipoli," U.S. Naval Institute *Proceedings* 58, no. 7 (July 1932): 1001-3.

While modern researchers are deprived of the report produced by Committee IV during the Gallipoli course, it is apparent that Lieutenant A. B. Kerr, the committee's chairman, was far less convinced by the value of Gallipoli's lessons than Ansel. Kerr acknowledged that there were "practical ideas" that would be useful in solving the "Dumanquillas [Philippines] and Contiqua [sic] problems," but overall, the course represented a "living example" of the maxim: "a little knowledge is a dangerous thing."⁶⁷ Kerr warned

*In limiting the study to one campaign, the natural tendency is to focus attention on the scanty gleanings, to give them importance they don't deserve, and to dress up the so-called lessons until they look like the whole truth. This is believed to give rise to ideas which may someday lead to a campaign fully as dangerous as the one under study.*⁶⁸

Yet, as far as any doubts the Marine Corps might have had about the amount of weight they were placing on Gallipoli as a foundation of their landing operations studies, Kerr was a solitary, conspicuous example. Although Committee IV's missing report complicates an evaluation of their findings and Kerr's conclusions, its absence might be irrelevant. In the *Tentative Manual for Landing Operations* (1934), naval gunfire is just a small part of the subchapter "Employment of Naval Supporting Groups."⁶⁹ Additionally, the sections that do deal with gunfire closely resemble Ansel's and Barrett's work. Thus, it is likely that Committee IV came to the same conclusions as Ansel and Barrett, or even that the former's work was discarded in favor of the latter's. For example, Ansel observed that during the initial Gallipoli landings, the HMS *Implacable* (1899) was able to provide ample support on X Beach by anchoring 500 yards from the peninsula and plastering the cliffs with shells.⁷⁰ The result was that the troops made it ashore without a casualty. The manual's entry on the "use of accompanying ships" similarly suggests that "the closer the vessels can get to the beach the greater amount of protection they can give the landing troops."⁷¹

There are also less explicit examples. One of the major issues for the British on V Beach was that the naval barrages failed to destroy Turkish defenses and that too much time elapsed between the barrage lifting and the troops landing. In either case, it meant the Turkish soldiers were in position by the time the British disembarked. As a result, British soldiers made for easy targets as they exited the boats and were cut down in great numbers. In this vein, the Marine Corps recognized that the problem

⁶⁷ "Gallipoli Course Study/Recommendations, 1933."

⁶⁸ "Gallipoli Course Study/Recommendations, 1933."

⁶⁹ "Tentative Manual for Landing Operations, 1934."

⁷⁰ Ansel, "Naval Gunfire in Support of Landings," 1006.

⁷¹ Ansel, "Naval Gunfire in Support of Landings"; and "Tentative Manual for Landing Operations, 1934," section 3-316.

arose partly because naval guns fire on a flat trajectory compared to land artillery, and had to stop firing earlier to prevent casualties among friendly troops following the barrage.⁷² To overcome this issue, the tactic of flanking fire was developed, where supporting ships were placed perpendicular to the beach, allowing them to deliver a safer, closer barrage. The following is from Ansel and Barrett's section on "Delivery of Naval Artillery Fire from the Flank."

*The patterns of Naval guns are smaller in deflection than in range, ie, the deflection can be more accurately controlled than the range . . . if the landing can be arranged so that the approach of the boats is normal to the ship's line of fire, the gap [between bombardment and troops] can be appreciably reduced. This can . . . be accomplished by placing the supporting naval vessels on the flanks.*⁷³

Compare this concept with that in section 2-315, "Delivery of Fire from the Flanks," and covering reverse slopes from the 1934 manual.

*naval guns have flatter trajectories than land guns corresponding in size, and errors in range are greater than errors in deflection. . . . When, therefore, it is desired to lay down a concentration closely in advance of our own troops and not have short shots falling among them, it will be better to conduct such from a flank.*⁷⁴

The similarities between the ideas (and even the wording) in these sections is quite evident; and although Gallipoli is not mentioned in this section of the manual, given the dearth of historical examples that the Marine Corps complained were available to them, it seems likely that these conclusions stemmed from the Corps' study of the V Beach landing. In any case, Ansel's work appears to reflect the kind of thinking that the *Tentative Manual for Landing Operations* (1934) was based on.⁷⁵

Parallel to these developments was the resumption of fleet exercises, the frequency of which remained constant up until World War II. No matter how extensively the officers at Quantico studied Gallipoli, these studies were of little value if they could not be tested. Navy lieutenant George Henry Bahm argued such a point in a report that analyzed Gallipoli's aerial observation and naval gunfire lessons. Bahm suggested that without "years of peacetime practice under simulated conditions," the U.S. military risked learning "little from our studies of historic examples"

⁷² "Correspondence from the Special Board to the Commandant, Coast Artillery School, 19 February 1931."

⁷³ "Naval Gunfire Support of Landing Operations, 1932."

⁷⁴ "Tentative Manual for Landing Operations, 1934"; and "Tentative Landing Operations Manual, 25 May 1935."

⁷⁵ This is the perspective adopted by historian Adrian R. Lewis, *Omaha Beach: A Flawed Victory* (Chapel Hill: University of North Carolina Press, 2001), 223-24.

and becoming “victimized by the same hallucinations which doomed the British to failure at Gallipoli.”⁷⁶

During the fleet exercises of 1936 and 1937, Bahm got his wish. In Culebra and San Clemente in the Philippines, both the Marines and the Navy were given the opportunity to study the effects of naval gunfire during a landing operation. In a report that followed the exercise, officers were able to demonstrate doctrinal and technological advances in naval fire support that had been made since Gallipoli.⁷⁷ By this stage, the Marines had developed something of a scientific method for drawing out Gallipoli’s lessons. Between 1933 and 1938, they identified lessons, theorized solutions, tested these solutions, reevaluated these solutions, and then tested them repeatedly until the results were considered satisfactory for inclusion in the landing operations manual.

Attempts to develop the manual did not begin until October 1933, when acting-Commandant Lieutenant General John H. Russell Jr. suspended classes and ordered students and staff to focus their time and attention on developing such doctrine.⁷⁸ To determine the essential elements of the manual, instructors at Marine Corps Schools were asked to chronologically itemize every step of a landing operation. From there, a committee of nine examined and combined the recommendations from these papers before passing it on to another committee of five that eventually determined a loose structure for the manual. A conference was then held to determine the headings, subheadings, and contents of the manual with more than 60 Marine Corps, Navy, and Army officers in attendance, though comprised predominantly of members from the former.⁷⁹

The manual went through several iterations during the 1930s, beginning with a name change and a significant structural rearrangement in 1935. Renamed the *Tentative Landing Operations Manual*, the updated manual featured a reorganized chapter structure, two of which were wholly dedicated to the subjects of naval gunfire and aviation. In line with Campbell’s original request, pilots involved in a landing were assigned roles other than aerial observation, though this was still a primary concern. Tasks included patrolling, establishing air superiority, laying defensive smoke, and most importantly providing an aerial bombardment during the crucial period between the naval bombardment lifting and the troops’ landing.

The changes made between the 1935 and 1938 manuals were far less drastic, by way of contrast, though still important. Officers expanded the “General Objectives”

⁷⁶ The archive folders are labeled incorrectly, citing the author as G. H. Bohm, see “Principles and Methods of Cooperation and Coordination of Gun Fire Support During Debarkation and the Advance to the Beachhead Line as Illustrated by the Operations as Gallipoli Commencing in April 1915, 1933,” box 4, folders 8 and 9, Gallipoli Collection, Historical Resources Branch, Marine Corps History Division, Quantico, VA.

⁷⁷ “Analysis of Naval Gunfire at San Clemente: Fleet Landing Exercise No. 3, 1937,” HAF 109, Historical Resources Branch, Marine Corps History Division, Quantico, VA.

⁷⁸ Clifford, *Amphibious Warfare Development in Britain and America from 1920–1940*, 101–8.

⁷⁹ Conference proceedings.

of a landing, and the role of aviation had simultaneously become more diverse and far more significant. This is evident through the inclusion of new methods of aerial warfare, such as the deployment of parachute troops and the tactic of strafing. The wording in sections such as the reduction of hostile defenses had changed. No longer was it a simple “opportunity” for a pilot to take, but a “priority objective” to complete “whatever the cost.”⁸⁰ Some changes also reflected the results of practical learning that the fleet exercises had provided, such as the chance to determine how many naval guns would be required during a bombardment by actually conducting exercises with naval guns and not just using conversion-based estimates derived from battlefield artillery. Barrett’s conversions using land artillery data were still included in the 1938 manual for reference, but the manual assures the reader that “actual experience in shore bombardment also indicates that the above table presents a satisfactory picture of the neutralization capacity of naval batteries.”⁸¹

Landing Operations Doctrine would see few changes between 1938 and World War II, after which the Marine Corps was able to rapidly expand its knowledge of landing operations with first-hand combat experience. Yet, as late as 1939, the Marine Corps had not dispensed with Gallipoli as a case study.⁸² The Corps’ ability to mesh different approaches to history with a model of continuous, exercise-based learning was essential to its development of the tactics it believed played a critical role in the Gallipoli landings. In the case of naval gunfire, despite obvious resistance from some within the U.S. Navy, Marine Corps officers were able to demonstrate—or at least persuade, as was the case with Ansel—that Gallipoli demonstrated a historical precedent that it was an essential component to a successful landing. Only by ceaselessly extracting Gallipoli from all its practical, historical worth was the Marine Corps able to incorporate naval gunfire into its landing doctrine and make naval gunfire a core tenet of its landings in the Pacific.

CONCLUSION

After World War II, General Holland Smith claimed that it was the “methods” of the 1934 doctrine (and its subsequent versions) that carried the Corps “through Tarawa, Normandy and Iwo Jima.”⁸³ Even for officers with years of practice and preparation, however, the process of applying amphibious doctrine during wartime conditions revealed its own lessons. In the case of landings like at Tarawa in 1943, such lessons were particularly bloody. Despite an intense bombardment of the island—just as the Turkish defenses had weathered the British gunfire in 1915—the Japanese soldiers were not displaced by U.S. naval gunfire. Even more tragically, on the approach to the beach, American forces had allowed too much time to elapse between the bombard-

⁸⁰ *Landing Operations Doctrine*, 1, 154.

⁸¹ *Landing Operations Doctrine*, 119.

⁸² For a collection of lectures from 1939 to 1941, see box 5, Gallipoli Collection, in particular, folder 1 (Naval Gunfire), folder 3 (British Air Operations), and folder 6 (Medical Activities).

⁸³ Smith and Finch, *Coral and Brass*, 61.

ment lifting and the Marines landing on that tiny strip of land. They met a fusillade not unlike the one at V Beach on 25 April 1915. Yet, as the U.S. commanders found in their postmortem of Tarawa, their basic doctrine still seemed sound even if observed or flawed in its execution.⁸⁴

In 2003, American naval historian John B. Hattendorf described the contemporary use of operational doctrine by U.S. naval forces as an attempt to distill historical experience into “ ‘axioms’ that can be readily applied to the present and future.”⁸⁵ Hattendorf continued, however, warning that such

*formulations and professional axioms of the past are merely “rules of thumb” [that] cannot be used blindly. They must be continually and critically tested against experiences in differing contexts. . . . Historical analogies do not create axioms but, more valuably, suggest the questions that need to be considered and the range of considerations that pertain.*⁸⁶

From this perspective, one could surmise that there is a delicate balance to achieve between the effective use of history and boiling past experiences down into simplistic axioms. The cautious, yet effective, use of military history by Marine Corps officers during the 1920s and 1930s demonstrated that such a balance was not just possible but valuable. After all, despite some parallels with Gallipoli, Tarawa was ultimately an American victory.

⁸⁴ Alexander, *Storm Landings*, 40–58.

⁸⁵ John B. Hattendorf, “The Uses of Maritime History in and for the Navy,” *Naval War College Review* 56, no. 2 (Spring 2003): 26.

⁸⁶ Hattendorf, “The Uses of Maritime History in and for the Navy,” 26.

CHAPTER TEN

Ambiguous Application

The Study of Amphibious Warfare
at the Marine Corps Schools, 1920–33

Bruce Gudmundsson

History is lived forward but is written in retrospect. We know the end before we consider the beginning and we can never wholly recapture what it was like to know the beginning only.¹

In general histories of the U.S. Marine Corps, the treatment of the years between the great world wars of the twentieth century often takes the form of an account of straightforward progress along a single track. More specialized works pay due attention to the many delays and discursions encountered in the course of this journey. Nonetheless, the story is essentially the same: at the end of the First World War, far-sighted Marines imagined the need for forces capable of making opposed landings on islands in the Pacific Ocean and, despite many obstacles, developed the means to realize their vision. The records of the two senior resident courses of the Marine Corps Schools in the years between 1920 and 1933 tell a different tale, however; one in which the path that plays such a large role in the institutional iconography of in-

¹ C. V. Wedgwood, *William the Silent: William of Nassau, Prince of Orange, 1533–1584* (London: Jonathan Cape, 1944), 35.



FIGURE 34
Historical image of Quantico, VA, ca. 1920.
Official U.S. Marine Corps photo

terwar innovation forms but one of many threads in a spider's web of possibilities.²

The Marine Corps Schools sprang to life on 1 August 1920 (figure 34). Located aboard the Marine Barracks in Quantico, Virginia, it initially consisted of three component schools. The Basic School, which had been in operation for a generation, provided entry-level training to recently commissioned subalterns.³ The Company Officers' School focused on the things that an experienced junior officer, whether a senior first lieutenant or a junior captain, needed to know before taking command of a company. The Field Officers' School prepared officers, most of whom were either senior captains or majors, to meet the challenges that they would face in the ranks of major, lieutenant colonel, and colonel.⁴ The curricula for each of these schools provid-

² The author would like to thank Jennifer Mazzara and Martin Samuels for their careful reading of the drafts of this article and the unfailingly helpful critiques that followed. He would also like to express heartfelt appreciation to those at the Marine Corps Archives (now Historical Resources Branch) who went out of their way to help with the search for sources, particularly Alissa Whitley, Nancy Whitfield, John Lyles, Stephen Coode, and Dominic Amaral.

³ For a history of The Basic School during this period, see Jennifer L. Mazzara, "Shared Experience: Organizational Culture and Ethos at the United States Marine Corps' Basic School, 1924-1941" (PhD thesis, King's College, London, 2019).

⁴ For an early, semiofficial account of the founding of the Marine Corps Schools, see MajGen Cmdt John A. Lejeune "Professional Notes," *Marine Corps Gazette* 5, no. 4 (December 1920): 405-17.

ed a thousand hours or so of resident instruction spread during an academic year that began in the late summer or early autumn and lasted until late the following spring.⁵

Because of the peculiarities of its mission, its direct links to Headquarters Marine Corps as a whole, and after 1924, its location in Philadelphia, The Basic School lived a life apart from that of the other component courses of the Marine Corps Schools. The same can be said for the correspondence courses, which, notwithstanding colocation with the two resident courses for mature officers, also enjoyed a separate existence. Thus, for Marines active between the great World Wars of the twentieth century, the term *Marine Corps Schools* was more likely to bring to mind the two senior resident courses than the command as a whole.

All three of the resident courses of the Marine Corps Schools borrowed much from counterparts belonging to the U.S. Army. In particular, The Basic School, Company Officers' School, and Field Officers' School adopted much in the way of materials and methods from the Basic Course, Company Officers' Course, and Field Officers' Course at the Army's Infantry School at Camp Benning, Georgia.⁶ Indeed, the resemblance between the three Marine institutions and their counterparts at Camp Benning was so strong that, starting in 1922, official documents described them as "the Basic Course," "the Company Officers' Course," and the "Field Officers' Course."⁷ The Field Officers' Course also borrowed a great deal from the Army School of the Line at the General Service Schools at Fort Leavenworth, Kansas.⁸ Where the Field Officers' Course at Camp Benning taught infantry officers how to command infantry battalions, regiments, and brigades, the Army School of the Line instructed majors, lieutenant colonels, and colonels of all arms and Services to handle combined-arms formations.⁹

For the Marines charged with creating the component courses of the Marine Corps Schools, extensive borrowing from the Army usually had been the path of least resistance. Army teaching materials were close at hand and could be acquired

⁵ For a concise treatment of the first 10 years of the Marine Corps Schools, see BGen Randolph C. Berkeley, "The Marine Corps Schools," *Marine Corps Gazette* 15, no. 5 (May 1931): 14-15.

⁶ For an overview of the courses offered by the Infantry School in the academic year that began in the fall of 1920, see "Infantry School Courses," *Infantry Journal* 17, no. 4 (October 1920): 330-31.

⁷ For an early example of a semiofficial use of the term *course* in the names of these schools, see "Assignment of Students to Marine Corps Schools," *Leatherneck* 5, no. 36, 8 July 1922, 1. For a late instance of an official use of the term *school* in the title of one of these courses, see "Schedule, Field Officers' School 1924-1925," folder 3, box A-18-F-7-5, Historical Resources Branch, Marine Corps History Division, Quantico, VA.

⁸ In 1923, the two component schools of the Army General Service Schools at Fort Leavenworth—the School of the Line and the General Staff School—merged to form the Command and General Staff School. For details of this merger, see the *Annual Report of Major General H. E. Ely, USA, 1923* (Fort Leavenworth, KS: General Service Schools Press, 1923). For a highly sympathetic description of the use of the applicatory method at Fort Leavenworth during this period, see Peter J. Schifferle, *America's School for War: Fort Leavenworth, Officer Education, and Victory in World War II* (Lawrence: University Press of Kansas, 2010), 100-22.

⁹ For a description of the Army School of the Line, see the *Annual Report of Colonel H. A. Drum, 1921* (Fort Leavenworth: General Service Schools Press, 1921), 26-27.

more easily, cheaply, and quickly than comparable materials from other sources. This was particularly true for high-quality maps, which were far harder to improvise than text.¹⁰ Army teaching methods, moreover, were already familiar to the many Marine officers who had graduated from various Army schools. The rationale for extensive imitation of Army schools was, however, much more than a matter of convenience. Twice, in the previous decade, substantial bodies of Marines had been grafted onto formations of the U.S. Army. The first of these incorporations had taken place during the expedition to Vera Cruz, Mexico, in 1914. The second, of greater duration, took the form of the assignment of a seven-battalion Marine brigade to the 2d Infantry Division of the American Expeditionary Forces in 1917 and 1918. Because of this experience, many Marines of the 1920s, and in particular, the early years of that decade, thought it likely that any large force of Marines that went to war in the foreseeable future would do so in close proximity to units of the Army.

Some advocates of the use of materials and methods imported from Army schools also argued that the definitive tasks of both the Marine Corps Schools and its Army counterparts were the same. According to these officers, both sets of institutions existed to replace a cacophony of military opinions, born of varied experience and study, with a uniform way of thinking. No less of an authority than John A. Lejeune, who had commanded the 2d Infantry Division during the World War and had recently been appointed as Major General Commandant of the Marine Corps, believed that the purpose of the Marine Corps Schools was “to make all the Marine Officers think along the same lines.”¹¹ Another argument in favor of the wholesale adoption of Army materials and methods came from Colonel Robert H. Dunlap, who held that the organization, techniques, and teachings developed by the Army in the aftermath of the First World War, the result of a “prolonged and exhaustive study of the best military minds in the country” applied “in every detail to the missions normal to Marine Corps Forces.”¹²

Notwithstanding enthusiasm for Army ways on the part of colleagues, some influential Marines saw a need to temper the use of Army methods and materials with those used to prepare Marines for the many peculiar situations in they might find themselves. The author of an official announcement of the creation of the Marine Corps Schools, for example, defended planned deviations from Army ways by arguing that “small bodies of [the] Marine Corps must often act independently.” This, they added, made it necessary for the Marine Corps Schools to “develop initiative, correct thinking and ready decision on the part of subordinate officers.”¹³

¹⁰ The author is indebted to Dr. Mazzara for this observation.

¹¹ LtCol R. B. Sullivan, “To Make All Officers Think Along Same Lines,” *Leatherneck* 7, no. 27, 28 June 1924, 7.

¹² R. H. Dunlap, “Recommendations Based on Report of Critique on Joint Army-Navy Problem Number 3, by Officers of Marine Corps Schools, June 1 to 5, 1925,” folder 756, Historical Amphibious File, Historical Resources Branch, Marine Corps History Division, Quantico, VA.

¹³ “Professional Notes,” 409–10.

THE APPLICATORY METHOD

The approach to teaching that the Marine Corps Schools imported from the Army was called the “applicatory method.” It consisted of exercises in which students were asked to compose suitable orders for fictitious military units facing highly specific—but equally imaginary—situations on actual pieces of ground. In most instances, these hypothetical problems were depicted on a map and the solutions composed by students were reduced to paper. In some, however, students took part in outdoor exercises known variously as “tactical walks” and “tactical rides” that allowed them to view firsthand the terrain in which such speculative scenarios had been set. Similarly, while some of the situations emerged from the interplay of actions in two-sided “map maneuvers,” most were single-sided problems in which the predicament was entirely the product of its author’s imagination.¹⁴

The version of the applicatory method that the Marine Corps Schools of the 1920s copied from the Army was an import from another institution, the Army of the German Empire.¹⁵ In the course of conveyance, a process that took place during a period of 30 years, much of the original “applicatory teaching method” (*applicatorische lehrmethode*) had been changed.¹⁶ In some instances, such as the replacement of format-free orders with those formed on a formal template, these changes stemmed from American attempts to improve on the models they were copying.¹⁷ In other cases, the American incarnation of the applicatory method diverged from its German predecessor because of differences between the German and American armies of the years between 1890 and 1920. In particular, while the German Army was optimized to conduct short-notice campaigns of rapid maneuver in the vicinity of its frontiers with France and the Russian Empire, the U.S. Army had been designed to provide multiple services in a wide variety of places. Thus, while German soldiers necessarily

¹⁴ For descriptions of the American incarnation of the applicatory method, see two works by Even Swift, the first, and, arguably, the greatest, of its champions within the U.S. Army. “The Lyceum at Fort Agawam,” *Journal of the Military Service Institution of the United States* 20, no. 86 (March 1897): 233–77; and “The Development of the Applicatory Method of Military Instruction,” *Military Engineer* 14, no. 73 (January–February 1922): 30–32. The first of these articles, which introduced the applicatory method to the U.S. Army, is necessarily prospective. The second, written a year or two after Swift’s retirement from active service, provides a largely retrospective perspective.

¹⁵ Strictly speaking, the military forces of the German Empire (1871–1918) were composed of the armies of the component monarchies of that federation, each of which was tied to the other by a series of treaties. These armies, however, were so well integrated that both contemporaries and historians of subsequent generations found it reasonable to refer to them as a single German Army.

¹⁶ For an account of the years in which the U.S. Army first adapted the applicatory method to its purposes, see Timothy K. Nenninger, *The Leavenworth Schools and the Old Army: Education, Professionalism, and the Officer Corps of the United States Army, 1881–1918* (Westport, CT: Greenwood Press, 1978), 44–50.

¹⁷ Marvelous to say, the five-paragraph order format, which has since become an inescapable element of American military culture, made its debut in an article that laid out, in considerable detail, a substantial professional development program based entirely on the applicatory method for the officers of an isolated post. For the original template for the five-paragraph order, see Swift, “The Lyceum at Fort Agawam,” 250.

knew much about the enemies they would face, their American counterparts faced a much broader range of possibilities.

One of the more salient characteristics of the problems posed by German practitioners stemmed from an understandable reluctance to identify the fictional forces in a game with those of a real-world state. Thus, unless the game in question was explicitly based on a historical event, one side was invariably referred to as “blue” and the other as “red.” In doing this, however, few of the German participants in an exercise had any doubts about the affiliation of the forces in question. For example, the first problem in one of the best-known collections of applicatory exercises to be published in Germany in the 1890s, the *Tactical Assignments* of Helmuth von Moltke (1800–91), is free of any explicit reference to the identity of the belligerents.¹⁸ At the same time, the location and armament of the units in play made it clear to contemporary observers that the situation depicted was set in an imagined war between the kingdoms of Prussia and Saxony in the late 1850s. Indeed, one of the more obvious purposes of the game, which made its debut in 1858 at a class for junior officers of the Prussian General Staff, was to force participants to consider the operational implications of a new type of field piece that had recently been adopted by the Saxon artillery.¹⁹

Whether copied directly from tactical problems described in German texts or merely inspired by them, the games that made up the American incarnation of the applicatory method retained the convention of designating friendly forces as “blue” and hostile hosts as “red.” However, as the American officers playing such games usually lacked the background knowledge needed to read between the lines, the exercises proved far more abstract than their German progenitors. In the case of problems that were mere translations of German originals, American officers necessarily lacked the sense of connection, immediacy, and relevance that enlivened the way that their German counterparts dealt with the same situations. In instances in which the problem had been transplanted to a map representing terrain located in the vicinity of military posts, on the battlefields of the American Civil War, or an entirely imaginary place, the gulf between applicatory exercises and the realm of reasonable possibility was wider still.

¹⁸ Helmuth von Moltke, *Taktischen Aufgaben aus den Jahren 1857–1882* (Berlin, Germany: E. S. Mittler, 1892).

¹⁹ The field piece in question was the Saxon incarnation of the 12-pounder “gun-howitzer” [*canon-obusier*] invented by Louis-Napoléon Bonaparte (1808–73). While equal in mobility, accuracy, and rate of fire to the standard Prussian field gun of the day, it fired projectiles that were twice as large. For a contemporary argument in favor of pieces of this type, see Louis-Napoléon Bonaparte and Idelfonse Favé, *Nouveau Système d'Artillerie de Campagne de Louis-Napoléon Bonaparte* (Paris: Librairie Militaire de J. Dumaine, 1851). For technical details, see Johann Woldemar Streubel, *Die 12-Pfündige Granatkanone und ihr Verhältnis zur Taktik der Neuzeit* (Kaiserslautern, Germany: Hugo Meuth, 1857); and Louis-Napoléon Bonaparte and Idelfonse Favé, *Études sur le Passé et l'Avenir d'Artillerie*, vol. 5 (Paris: Librairie Militaire de J. Dumaine, 1846–71), 225–28. For a contemporary overview of European artillery in the 1850s, see Alfred Mordecai, *Military Commission to Europe in 1855 and 1856: Report of Major Alfred Mordecai* (Washington, DC: George W. Bowman, 1861).

The American experience of the First World War, which might have mitigated the already powerful tendency toward abstraction in instructional exercises, served to exacerbate it. This was, to a certain extent, a function of the peculiar circumstances in which most members of the American Expeditionary Forces found themselves while serving in France. In particular, memories of movements during the last six months of the war, where ill-advised instructions issued by unschooled staff officers and neophyte commanders often caused as many delays as enemy action, convinced many officers that modern war was largely a matter of traffic management and internal arrangements of various kinds. This conviction, in turn, soon gave birth to problems that placed far more emphasis on internal arrangements incidental to movement than the effects that action might have on the enemy. What was worse, an attempt to promulgate an “American Doctrine” that was, at once, uniform and universally applicable, deprived problems of any clear connection to real-world circumstances, whether historical or contingent.²⁰

As might have been expected, the absence of context created many opportunities for form, formulas, and formality. Thus, the lineal descendants of exercises designed to enable officers to quickly make sense of the essential features of a specific situation became multi-hour exercises in which the chief task of the student had little to do with the grasp of the problem as a whole. What was worse, the “approved solutions,” which in the best practice of the German Army had served as a baseline for comparison and the start of an essentially Socratic critique of the problem as a whole, became increasingly arbitrary collections of previously promulgated templates.²¹ “Reading an approved solution is like playing bridge with your wife,” wrote one student at Fort Leavenworth in 1922, “everything that you did was wrong.”²² Worst of all, this formalism was exacerbated by the practice of assigning numerical grades to student solutions, thereby giving students an incentive to devote far more time and trouble to the acquisition of points than to the engagement of the conundrum at the heart of each exercise. As might be imagined, the grading of student solutions, as well as the many discussions about the award of points that inevitably followed, also consumed a great deal of time that instructors might otherwise have devoted to the study of war.²³

²⁰ For an unequivocal statement of the desire to impose a uniquely American doctrine on students at the Army School of the Line, see “Explanation of Course and Other Pertinent Comments,” memorandum, 12 August 1919, Army Service Schools, Fort Leavenworth, KS, digital collections, Ike Skelton Combined Arms Research Library, Fort Leavenworth, KS. This handout was created for the sake of both students and instructors. The great exception to the rule that deprived Fort Leavenworth problems of their context is provided by “domestic disturbance” problems set in particular American cities.

²¹ For a description of critiques conducted by a master of that art, see Max Jähns, *Feldmarshall Moltke* (Berlin, Germany: Ernst Hofmann, 1906), 312–14. A translation of this passage can be found in “Helmuth von Moltke and the ‘School Solution,’” *Case Method in PME (Extra)* (blog), 30 June 1990.

²² Bernhard Lentz, *At Kickapoo* (Fort Leavenworth, KS: privately published, 1922), 8.

²³ For a thoughtful critique of the use of the applicatory method at Fort Leavenworth in 1922, see Maj Bernhard Lentz, “The Applicatory Method,” *Infantry Journal* 20, no. 6 (June 1922): 604–9.

THE FIELD OFFICERS' COURSE

Between 1920 and 1926, instructors at the Field Officers' Course made many minor adjustments to the curricula imported from Army schools. In most cases, this was largely a matter of replacing the Army units represented in problems with their sea Service counterparts. Thus, for example, a domestic disturbance problem in which Marine and Navy units were called on to deal with a riot in Baltimore, Maryland, replaced one in which Army units provided "aid to the civil power" in Cincinnati, Ohio.²⁴ In other cases, however, instructors at the Field Officers' Course developed materials, problems, and lesson plans that were entirely original. As might be imagined, some of these dealt with the definitive Marine Corps mission of the time—the establishment and defense of advanced naval bases.

In 1926, the Field Officers' Course departed from the route it had followed since its founding. In that year, it established a Department of Overseas Operations for the exclusive purpose of designing and executing a five-week "course within a course" on the design of the defenses for improvised naval bases and the landing of substantial bodies of Marines on hostile shores.²⁵ Thus, the class that graduated in 1927 devoted more than a hundred classroom hours to this subject, which encompassed both the defense of advanced naval bases and landing operations. During this period, they attended 19 lectures, took part in 71 seminar discussions (known as "conferences"), and during the last four days, worked through a substantial "staff exercise."²⁶

In the academic year that began in 1927, the number of conferences in the course on overseas operations increased slightly (from 71 to 85), while the number of lectures was reduced (from 19 to 14). However, rather than being taught as a coherent block, these classes were distributed throughout the program of instruction.²⁷ This interleaving provided thoughtful students with frequent opportunities to compare two very

²⁴ The working materials for the domestic disturbance problem set in Cincinnati identify it as a Fort Leavenworth product that had been modified by the replacement of Army units with equivalent organizations from the Navy and Marine Corps. The documents for the exercises set in Baltimore and Pittsburgh, PA, however, bear no indication of such provenance. Thus, they may well have been created at Quantico for the express use of students studying at the Marine Corps Schools. Materials for such exercises used at the Field Officers' Course can be found in folders 1-6, box A-18-E-2-1, Marine Corps Schools: Field Officers' Course, 1926-1933, Historical Resources Branch, Marine Corps History Division, Quantico, VA.

²⁵ For the formation of the Department of Overseas Operations, see BGen Dion Williams, "The Education of a Marine Officer," *Marine Corps Gazette* 18, no. 2 (August 1933): 19.

²⁶ "Schedule: Field Officers' Course, 1926-1927," folder 5, box A-18-E-7-5, Marine Corps Schools: Field Officers' Course Schedules, 1921-1933, Historical Resources Branch, Marine Corps History Division, Quantico, VA, 18-20.

²⁷ "Schedule: Field Officers' Course, 1927-1928," folder 6, box A-18-E-7-5, Marine Corps Schools: Field Officers' Course Schedules, 1921-1933, Historical Resources Branch, Marine Corps History Division, Quantico, VA, 11-32.

different approaches to teaching the art of war. At the same time, the fact that class standing depended heavily on the accumulation of points awarded to solutions to Army-style map problems led officers who were eager for promotion to devote the lion's share of their study time to preparation for such exercises.²⁸ Students of the class that graduated in 1928 worked through 80 graded map problems, only 8 of which dealt with overseas operations.²⁹

At first glance, the map problems developed at Quantico for the sake of the study of overseas operations had much in common with those provided by Army schools. The format of both kinds of assignments, for example, was entirely the same. A closer examination of the maritime map problems, however, reveals features that distinguish them from their land-locked predecessors. Thus, while Army problems asked students to deal with situations that were, at once, both highly improbable and painfully conventional, the Marine-made map studies asked them to plan the defense of advanced naval bases in places such as the Hawaiian Islands or the Caribbean—locations that were expected to play a role in possible naval campaigns. The hostile forces depicted in these problems, moreover, while designated only by colors, bore a curious resemblance to opponents Marines might reasonably expect to meet in such places. The map problem set on “Contiqua,” an entirely imaginary island placed in the middle of the Atlantic Ocean, halfway between Brazil and French West Africa, provides a rare exception to this rule.³⁰

In 1928, the need to provide officers for service in Nicaragua created such a shortage of instructors at the Marine Corps Schools that the Company Officers' Course had to be shut down and the Field Officers' Course run by a skeleton crew. Thus, in the absence of people who had the time to make changes, the program of instruction for the handful of students who graduated from the Field Officers' Course in June 1929 differed little from the course of studies that had been taught in the previous academic year.³¹ In the academic year (1929–30) that followed, however, the number of hours devoted to overseas operations grew by nearly 25 percent, from 104 to 146. The count of hours allocated to overseas operations excludes the talks on related topics delivered by outside experts, many of whom were officers of the U.S. Navy. The topics for these lectures ranged from the use of naval gunfire to support Marines ashore to

²⁸ For the pernicious impact of graded map problems on the studies of students at the Field Officers' Course, see LtCmdr H. S. Jeans, USN, “Field Officers' Course at Marine Corps Schools,” *Marine Corps Gazette* 15, no. 3 (November 1930): 50, 105.

²⁹ “Schedule: Field Officers' Course, 1927–1928,” 24–25.

³⁰ Materials related to advanced base defense map problems can be found in folders 12, 13, 14, and 36, box A-18-E-2-1, Marine Corps Schools-Field Officers' Course, 1926–1933, Historical Resources Branch, Marine Corps History Division, Quantico, VA. For the St. John's problem of 1928–29, see folder 209, Historical Amphibious File, Historical Resources Branch, Marine Corps History Division, Quantico, VA.

³¹ Anthony A. Frances, *History of the Marine Corps Schools* (unpublished manuscript, 1945), 37.

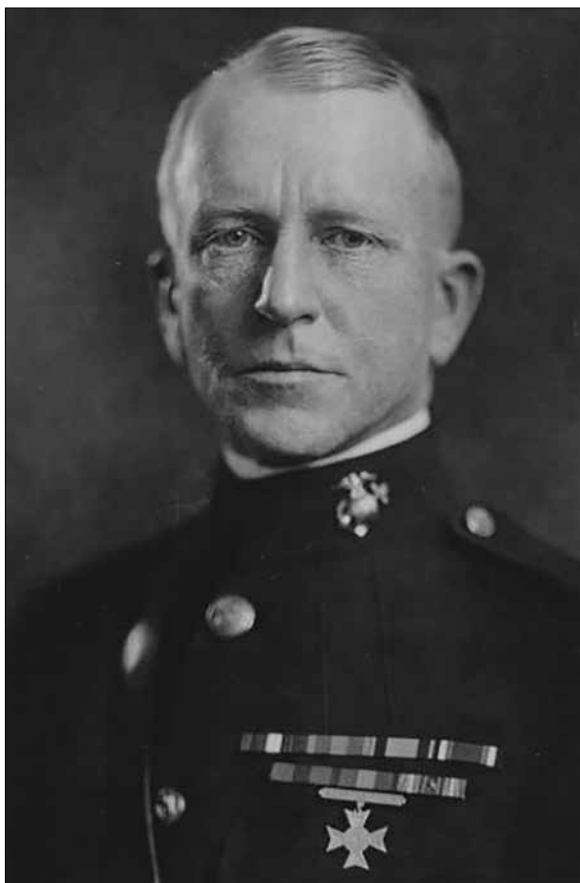


FIGURE 35
LtGen James C. Breckinridge,
ca. 1935.
Official U.S. Marine Corps photo

Operation Albion, the German landings that, in 1917, resulted in the capture of the fortified islands that controlled the entrances to the Gulf of Riga.³²

The great dearth of students of the academic year that ended in 1929 coincided with the first year in which James C. Breckinridge served as commandant of the Marine Corps Schools (figure 35). Breckinridge took the helm of the Marine Corps Schools on 1 July 1928, a little more than two months before the start the Field Officers' Course in that year. Like most Marine officers of his generation, Breckinridge, who had joined the Marine Corps in July 1898, had much experience of life on board warships of the U.S. Navy and service with ad hoc expeditionary forces on various

³² Schedule: Field Officers' Course, 1929-1930, folder 11, box A-18-E-7-5, Marine Corps Schools: Field Officers' Course Schedules, 1921-1933, Historical Resources Branch, Marine Corps History Division, Quantico, VA, 51, 54-55. The islands, which were then known as Ösel, Moon, and Dagö, were then occupied by forces of the short-lived Russian Republic. Currently called Saaremaa, Muhu, and Hiiuma, they now belong to Estonia.

foreign shores.³³ Between 1916 and 1918, however, Breckinridge performed duties of a very different sort. At a time when so many of his contemporaries were devoting their energies to the needs of the American Expeditionary Forces in France or small wars in the Caribbean, he had been seconded to the Office of Naval Intelligence, which sent him to various places along the Baltic littoral to observe the collapse of the Russian Empire and the beginnings of the Bolshevik Revolution.³⁴

As was the case with so many of his contemporaries, the experience of multiple expeditions gave Breckinridge a keen appreciation of the highly specific nature of the particular problems faced by military leaders and the consequent need for custom-tailored solutions.³⁵ While many military and naval officers of the interwar period viewed the setting of such situations as something that changed slowly, Breckinridge was aware of the possibility of radical change in the broader context of tactical endeavors. Thus, while celebrating the “lesser individualists” who approached tactical problems with “an abundance of confidence born of experience, much reading, and a mind in athletic thinking condition,” Breckinridge reserved his greatest praise for those “Juggernauts of history” who had proved able to exploit revolutionary changes in the realms of strategy and statecraft.³⁶

Belief in the need to prepare Marines to deal with a wide variety of situations, few of which were purely tactical and all of which were in settings that were subject to sudden change, put Breckinridge at odds with the champions of methods and materials borrowed from the Army. In a year in which the instructors at the Field Officers’ School had little time to spare for the creation of new classes, let alone adoption of a radically different philosophy of teaching, Breckinridge had to be clever in the way in which he promoted his reforms. Thus, rather than mandating the wholesale

³³ Glenn M. Harned, *Marine Corps Generals, 1899–1900: A Biographical Encyclopedia* (Jefferson, NC: McFarland, 2015), 238–43.

³⁴ For a detailed account of the services performed by Breckinridge in Russia, Sweden, Denmark, and Norway, see Leo J. Daugherty III, “A Leatherneck Reports, Part 1: The Correspondence of Lieutenant General James Carson Breckinridge, USMC, Assistant U.S. Naval Attaché to Petrograd, 1916–17,” *Journal of Slavic Military Studies* 16, no. 2 (June 2003): 51–64, <https://doi.org/10.1080/13518040308430559>; and Leo J. Daugherty III, “A Leatherneck Reports: The Correspondence of a Naval Attaché to St. Petersburg in World War I: Lieutenant General James Carson Breckinridge, USMC on Russia, 1916–1918, Part II,” *Journal of Slavic Military Studies* 20, no. 4 (December 2007): 693–704, <https://doi.org/10.1080/13518040701703179>. For more on subsequent studies conducted by Breckinridge in the realm of Russian history, see Col J. C. Breckinridge, “Russia,” *Marine Corps Gazette* 6, no. 1 (March 1921): 16–30; Col J. C. Breckinridge, “A Russian Background, Part I,” *Marine Corps Gazette* 12, no. 4 (December 1927): 229–37; and Col J. C. Breckinridge, “A Russian Background, Part II,” *Marine Corps Gazette* 13, no. 1 (March 1928): 37–45. For an appreciation of the legacy of these studies, see LtCol A. M. Del Gaudio, “Russian Reflections and Military Renaissance,” *Marine Corps Gazette* 100, no. 9 (September 2016): 75–79.

³⁵ For an argument that ascribes Breckinridge’s belief in the specificity of military problems to the frustration he experienced commanding Marines in the field in the Dominican Republic in 1919, see Troy R. Elkins, “A Credible Position: James Carson Breckinridge and the Development of the Marine Corps Schools” (master’s thesis, Kansas State University, 2011), 1–3.

³⁶ BGen J. C. Breckinridge, “An Evaluation of the Tactical School,” *U.S. Naval Institute Proceedings* 60, no. 11 (November 1934): 1538.

replacement of Army-style exercises with activities of a different sort, he encouraged his subordinates to make changes at the margins of the curriculum, some of which offered the additional benefit of reducing the time they spent grading student solutions to map problems. Thus, the course of study begun at the Field Officers' Course in September 1929 saw a reduction, from 52 to 44, in the number of Army-style map problems and an increase in material borrowed from the U.S. Naval War College. The latter included a number of guest lectures on naval strategy and amphibious operations, as well as a case study in international law.

In December 1929, Breckinridge yielded command of the Marine Corps Schools to Randolph C. Berkeley. This premature change of duties stemmed from the desire of the Commandant of the Marine Corps to have a general officer at the helm of that organization. At that time, Breckinridge was a colonel and Berkeley a brigadier general. Earlier that month, the *Marine Corps Gazette* had published an article by Breckinridge on the subject of military education.³⁷ "Some Thoughts on Service Schools" called for the replacement of arbitrary methods of teaching with "open forums for the discussion and dissection of special episodes."³⁸ This, he argued, would result in the "habit of thinking and analyzing (but not of fulfilling a ritual) that will be suitable to every situation encountered in military life."³⁹ In making his argument, Breckinridge refrained from any mention, let alone criticism, of the particular methods he had seen in use at Quantico during the course of the previous 18 months. Rather, he employed a lengthy discussion of a pamphlet produced by the University of Wisconsin's Experimental College to lay out an approach to "learning by doing." Breckinridge believed that the Marine Corps Schools "must cultivate curiosity, encourage investigation, stimulate discussion, and inspire criticism that will result in improvement."⁴⁰

Unfortunately, the institution that Breckinridge held up as a paragon of the sort of learning he wished to see at the Marine Corps Schools held little appeal for most contemporary Marines. Eschewing such goals as the cultivation of character and the preparation of students for the world of work, the Experimental College focused entirely on the development of what its founder, Alexander Meiklejohn, called "social intelligence."⁴¹ This lopsided emphasis appealed chiefly to students of decidedly Bohemian inclinations who, by their "shabby dress and supercilious air irritated many" and whose fondness for horseplay resulted not merely in food fights in the dining hall but also in disproportionate damage to the fixtures and furnishings of their dormito-

³⁷ Col J. C. Breckinridge, "Some Thoughts on Service Schools," *Marine Corps Gazette* 14, no. 4 (December 1929): 230-38.

³⁸ Breckinridge, "Some Thoughts on Service Schools," 231.

³⁹ Breckinridge, "Some Thoughts on Service Schools," 238.

⁴⁰ Breckinridge, "Some Thoughts on Service Schools," 231.

⁴¹ For a detailed description and defense of the Experimental College written by its founder, see Alexander Meiklejohn, *The Experimental College* (New York: Harper and Brothers, 1932). For a sympathetic retrospective, see Erin Ablor, "The Experimental College: Remembering Alexander Meiklejohn and an Era of Ideas," *Archive: A Journal of Undergraduate History* 5 (May 2002): 50-75.

ries.⁴² Notwithstanding this handicap, Brigadier General Berkeley maintained many of the reforms that Breckinridge had made, and at least where subject matter was concerned, moved further along the trail that Breckinridge had blazed.

Thus, the academic year that ended in 1931 saw further expansion of that part of the curriculum dealing with the seizure and defense of advanced naval bases. This subject, which had been redesignated as “landing operations,” accounted for 216 hours. Of these hours, 138 were devoted to classes offered in previous years, while 88 were set aside for the engagement of a substantial war game, known as the Naval War College Problem, that lasted for more than two weeks. Another major change that was introduced in the academic year that ended in 1931 took the form of a considerable increase, from 11 to 32, in the number of classes on amphibious matters that took the form of “conference problems.”⁴³ These were decision games that were simple enough for students to work through and critique in the course of a single hour.⁴⁴ Better yet, they were far easier for instructors to create than map problems, and they were free of the administrative overhead associated with marking written solutions and calculating grades. Best of all, whether the problems in question were drawn from real life or the products of imagination, the conference problem method provided instructors with an easy means of giving students opportunities to rapidly devise, concisely describe, and thoughtfully defend responses to predicaments that were entirely new to them.

The proximate cause for the addition of the Naval War College Problem to the Field Officers’ Course seems to have been the report of a board, convened by order of Major General Commandant Ben Hebard Fuller early in 1931 to review the curricula at the Marine Corps Schools. In a letter directing the Marine Corps Schools to adopt the recommendations of this board, Fuller expressed his belief that

*there is a field in the conduct of war that can be properly covered only by Marines, and that is military operations connected with naval activities. Once ashore, there is no great difference between Army and Marine forces, but skillful execution of the vital operation of transfer from troopship to a safe position on the beach, of itself, justifies the maintenance of an efficient Marine Corps as an essential part of the Naval Establishment.*⁴⁵

⁴² The quotations come from Michael R. Harris, *Five Counterrevolutionists in Higher Education: Irving Babbitt, Albert Jay Nock, Abraham Flexner, Robert Maynard Hutchins, Alexander Meiklejohn* (Corvallis: Oregon State University Press, 1970), 163. Accounts of student misbehavior can be found in Adam R. Nelson, *Education and Democracy: The Meaning of Alexander Meiklejohn, 1872–1964* (Madison: University of Wisconsin Press, 2001), 172–73.

⁴³ Schedule: Field Officers’ Course, 1930–1931, 38–39.

⁴⁴ For examples of conference problems, see Capt LeRoy P. Hunt, “Professional Notes,” *Marine Corps Gazette* 6, no. 3 (September 1921): 354–58; and Maj Ralph S. Keyser, “Professional Notes,” *Marine Corps Gazette* 6, no. 4 (December 1921): 492–98.

⁴⁵ Both the letter by MajGen Commandant B. H. Fuller to BGen R. C. Berkeley, 13 May 1931, and the enclosed report of the board, 13 January 1931, can be found in box 116, Record Group 127, National Archives and Records Administration, College Park, MD, hereafter Fuller letter and report.

The corollary of this axiom, Fuller added, was that “the design of courses at the Marine Corps Schools should, therefore, have in view that the Marine Corps is not an Army but an essential part of the Navy to be employed for naval purposes, and that emphasis in the education of its officers should be placed on the requirements for that purpose.”⁴⁶

THE COMPANY OFFICERS’ COURSE

The Company Officers’ Course began as a means of providing remedial training to lieutenants and captains who had been commissioned in haste during the First World War. Thus, the training program dealt largely in the skills associated with service in the ranks, the work of noncommissioned officers, and the day-to-day administration of platoons and companies. With each passing year, however, as a larger proportion of each class consisted of officers who had mastered those subjects at The Basic School, the greater became the resemblance between the Company Officers’ Course at Quantico and its namesake at the Army Infantry School.⁴⁷

In 1926, the Company Officers’ Course added a great deal of material related to seizure and defense of advanced naval bases. In the years that followed, this portion of the course evolved in much the same way as its counterpart at the Field Officers’ Course, with the hours devoted to the subject growing from 52 in the academic year that ended in 1927 to 121 for the class that graduated in 1931. The official designation for the subject also mirrored that of the Field Officers’ Course, with overseas operations giving way to “landing operations” in 1930. Indeed, the chief difference between the way that amphibious matters were taught in the two senior resident courses of the Marine Corps Schools lay in the realm of small wars. Where instruction on that subject at the Field Officers’ Course was limited to a handful of lectures, students at the Company Officers’ Course worked through a variety of exercises, whether map problems or conference problems, dealing with campaigns against insurgents. In the academic year that ended in 1931, 62 of the 121 hours of instruction in landing operations dealt with matters directly related to small wars.⁴⁸

In 1931, the Company Officers’ Course added more material related to the task

⁴⁶ Fuller letter and report.

⁴⁷ The earliest schedule for the Company Officers’ School on file at the Marine Corps History Division’s Historical Resources Branch belongs to the class that graduated in May 1925, which can be found in folder 1, box A-18-F-7-4, Marine Corps Schools: Company Officers’ Course, 1924–1933. Thus, the characterization of that course in the paragraph linked to this note depends heavily on Maj Jesse F. Dyer, “Military Schooling in the Marine Corps,” *Marine Corps Gazette* 7, no. 1 (March 1922): 22–30; Col Robert H. Dunlap, “Education in the Marine Corps,” *Marine Corps Gazette* 10, no. 3 (December 1925): 154; and Berkeley, “The Marine Corps Schools,” 14.

⁴⁸ “Master Schedule: Company Officers’ Course, 1926–1927,” folder 4, box A-18-F-7-4, Marine Corps Schools: Company Officers’ Course, 1924–1933, Historical Resources Branch, Marine Corps History Division, Quantico, VA, 41–42; and “Schedule: Company Officers’ Course, 1930–1931,” 40–42.

of preparing Marines to fight insurgents in Latin America. The lion's share of this increase took the form of a substantial (166 hours) series of classes in the Spanish language. In addition, the Company Officers' Course added material on subjects such as animal management and the organization of pack trains that, had it not been for small wars, would have been of no interest whatsoever to Marines. While these additions coincided with a considerable increase in the length of the academic year at the Company Officers' Course, they resulted in a reduction of emphasis on landing operations of a conventional sort. In the academic year that ended in 1931, the Company Officers Course devoted 59 hours to conventional landing operations. In the academic year that ended in 1933, that number declined to 44.⁴⁹

THE RETURN OF BRECKINRIDGE

In April 1932, Brigadier General Breckinridge resumed command of the Marine Corps Schools, where he found a curriculum for the Field Officers' Course in which 254 hours, and thus a good one-quarter of the total program of instruction, were devoted to landing operations. Of these hours, 128 were allocated to the Naval War College Problem and 36 to conference problems on various aspects of the defense of advanced naval bases and landings on a hostile shore. The schedule laid out for the following academic year (1932-33) bore a remarkable resemblance to that followed by the class of 1932. Indeed, the only significant difference between the two programs of instruction was the loss of approximately 70 hours of instruction in the program as a whole, only 2 of which could be considered landing operations.⁵⁰

The absence of change during the academic year that ended in 1933 proved to be a proverbial calm before the storm. Within the Marine Corps Schools, the appointment of Colonel Ellis B. Miller in July 1932 as assistant commandant provided Breckinridge with the sort of thoughtful, energetic, and self-directed assistance that had been lacking in 1928 and 1929. While attending two Army schools and the U.S. Naval War College, Colonel Miller had developed opinions about the former that resembled those of Breckinridge.⁵¹ Moreover, two years of teaching at the U.S. Naval War College provided him with a seabag full of alternate approaches to both subject matter

⁴⁹ The schedule for the academic year ending in 1932 is missing from the collection of schedules for the Company Officers' Course held by the Historical Resources Branch, Marine Corps History Division. Thus, the paragraph linked to this note is based on "Schedule: Company Officers' Course, 1930-1931," 40-42, 48; and "Schedule: Company Officers' Course, 1932-1933," 12-25.

⁵⁰ "Schedule: Field Officers' Course, 1930-1931," 26-32, 42-43, 48-49; and "Schedule: Field Officers' Course 1932-1933," schedules for weeks 23, 24, 29, 30, 31.

⁵¹ For a brief biography of Ellis B. Miller, see LtCol Kenneth J. Clifford, *Progress and Purpose: A Developmental History of the United States Marine Corps, 1900-1970* (Washington, DC: History and Museums Division, Headquarters Marine Corps, 1970), 44. For the way that Miller imagined the relationship between the Navy and the Marine Corps, see Ellis B. Miller, *The Marine Corps in Support of the Fleet* (Quantico, VA: Marine Corps Schools Press, 1933), 7.

and teaching methods that accorded well with the ideas of his immediate superior.⁵²

Within the larger Marine Corps, initiatives pursued by two successive major generals Commandant of the Marine Corps—Ben Hebard Fuller and John Henry Russell Jr.—changed the relationship between Breckinridge and his command.⁵³ In particular, in the years between 1931 and 1935, Fuller and Russell issued a series of mandates that required the Marine Corps Schools to replace classes borrowed from the Army with periods of instruction that had been custom tailored to the needs of a Marine Corps and, in particular, those units cooperating closely with elements of the Navy. The most important of these changes required that the Marine Corps Schools cooperate closely with the Naval War College, create authoritative texts on the subjects of landing operations and small wars, and replace problems in which the friendly forces were organized and armed in the manner of the Army with exercises in which such troops displayed the distinct features of Marine Corps units.⁵⁴

In 1928 and 1929, Breckinridge had been an institutional insurgent, making marginal changes while trying to convince other officers—whether superior, subordinate, or peer—to embrace an approach to both method and materials that was, for the most part, alien to them. Between 1932 and 1935, however, the reforms pursued by two successive Commandants of the Marine Corps provided both high-level blessing and official impetus to his attempts to change the content of curricula. “Your decisions relative to the immediate conduct of the Schools, and their preparation for the next year,” Breckinridge told the Commandant in 1934, “open a door so wide that even you do not realize how great will be the improvement.”⁵⁵

When, however, it came to reforming the teaching methods used in the Marine Corps Schools, Breckinridge faced two obstacles. The first was the tendency of some instructors to obey the letter of the official program of reform, while making few, if any, efforts to embrace the spirit. Thus, many of the map problems that students were asked to solve were preexisting exercises in which the Army units serving as blue forces were replaced with their Marine Corps equivalents. In one case, an instructor met the formal requirement to exorcise Army material from the curriculum of the course by describing the Civil War battlefield on which a thoroughly terrestrial map

⁵² Breckinridge described the harmony between his views and those of Miller in a letter that he wrote to John H. Russell Jr., then serving as Major General Commandant of the Marine Corps, on 4 December 1933. This letter can be found in folder 8, box 2, Personal Papers of James Carson Breckinridge, Historical Resources Branch, Marine Corps History Division, Quantico, VA.

⁵³ Ben Hebard Fuller served as Major General Commandant of the Marine Corps from 9 July 1930 to 1 March 1934. John H. Russell Jr. became Assistant Commandant of the Marine Corps in February 1933, after which he succeeded Fuller as Commandant. For concise biographies, see Alan R. Millett and Jack Shulimson, *Commandants of the Marine Corps* (Annapolis, MD: Naval Institute Press, 2004), 224–52.

⁵⁴ Clifford, *Progress and Purpose*, 44–45.

⁵⁵ This quotation comes from a lengthy letter that Breckinridge sent to Russell on 13 February 1934. A carbon copy of this letter can be found in folder 8, box 2, Personal Papers of James Carson Breckinridge, Historical Resources Branch, Marine Corps History Division, Quantico, VA.

problem had been set as “Antietam Island.”⁵⁶ The second obstacle was Breckinridge himself. While familiar with the use of the case method to teach law and a great proponent of the thoughtful study of military history, he failed to create the “forums for discussion and dissection of special episodes” necessary to the realization of his philosophy.⁵⁷

During the years that Breckinridge served as commandant of the Marine Corps Schools, a number of Army officers, the best-known of whom was George C. Marshall, introduced a new type of map problem at the Infantry School at Fort Benning. These “historical map problems” differed from conventional map problems in several ways. First, they were based on real problems faced by actual people at some point in the past. Second, they asked students to quickly provide solutions that were brief and to the point. Third, they only provided the sort of information that might reasonably have been available to the protagonist of the problem. The historical map problem was not entirely new. A pair of such exercises had been used as conference map problems in the Marine Corps Schools in 1921.⁵⁸ The reformers at Fort Benning, however, built programs of instruction around a combination of historical map problems, retrospective case studies (many of which took the form of combat memoirs), and speculative decision games in the style of historical map problems.⁵⁹

The poignancy of the failure of Breckinridge to embrace the historical map problem, something that can only be ascribed to lack of familiarity with the full panoply of the applicatory method, is underscored by two papers he wrote in 1934, the last full year of his second term as commandant of the Marine Corps Schools. The first of these is a somewhat pessimistic essay titled “Tactical Problems,” a piece that rests heavily on the assumption that such exercises were a necessary evil that could not escape being “intricate,” “artificial,” and “mechanical” activities in which “justly arbi-

⁵⁶ Several of the map problems used at the Marine Corps Schools in the early 1930s are preserved in box A-18-F-7-4, Marine Corps Schools: Company Officers' Course, 1924-1933, and box A-18-E-2-1, Marine Corps Schools—Field Officers' Course, 1926-1933, Historical Resources Branch, Marine Corps History Division, Quantico, VA. While this collection is not large enough to permit determination of trends or tendencies, it does give a sense of the variety of approaches used by the creators of map problems and other exercises.

⁵⁷ “Some Thoughts on Service Schools,” 231.

⁵⁸ For complete copies of these problems, see both Hunt's and Keyser's “Professional Notes,” 354-58, 492-97.

⁵⁹ The best source for examples of the types of exercises introduced to the Infantry School at Fort Benning by Marshall and his collaborators are the issues of the *Infantry School Mailing List* published between 1930 and 1939. For a brief explanation of the underlying philosophy, see the letters reproduced in *The Papers of George Catlett Marshall*, vol. 1, “*The Soldierly Spirit*,” December 1880-June 1939, ed. Larry I. Bland (Baltimore, MD: Johns Hopkins University Press, 1981), 409-16.

trary results” necessarily followed “standardized acts.”⁶⁰ The second is a lecture that he gave on the central problem he faced as the commanding officer of the 15th Marine Regiment in Santo Domingo in 1919 and 1920. This combat memoir (as it would have been called at Fort Benning) had all the makings of a splendid historical map problem. However, rather than asking the students in his audience to put themselves in his shoes and attempt to deal with this problem themselves, he moved directly from his description of the situation he faced to an explanation of the decision that he also made.⁶¹

CONCLUSION

In November 1933, Breckinridge canceled classes at the Company Officers’ Course and the Field Officers’ Course to free talent for the task of preparing authoritative texts on the subjects of landing operations and small wars. In doing this, he marked the end of an era. When, in summer 1934, the two resident courses at Quantico opened their doors again, they bore different names—Junior Course and Senior Course. Moreover, while not entirely free of the residual influence of approaches and attitudes imported in the early 1920s, each possessed a specialty that distinguished it, not only from contemporary Army schools, but from each other as well. These two courses, moreover, prepared a generation of Marine officers not merely for the challenges that actually took place in the Second World War, but also for contingencies that might have taken place had events in the early 1940s turned out differently. In other words, in addition to laying the foundation for the famous island-hopping campaigns of 1942 to 1945, the Marine Corps Schools also provided the United States with leaders able to defend Pacific islands against Japanese landing forces or return to the Caribbean to fight the proxies of a triumphant German Reich.

Stories of the changes that took place within the Marine Corps in the 1920s and 1930s often take the form of Whig history. Thus, from their first class in Marine Corps history at Parris Island, San Diego, or Quantico, Marines hear tales so full of unavoidable progress and unalloyed purpose that they might bring tears to the eyes of Thomas Babington Macaulay.⁶² The account laid out in the preceding paragraphs, however, is so full of unhappy coincidences, missed opportunities, and good Marines acting at cross purposes that it belongs to a different type of history altogether, one

⁶⁰ Two copies of “Tactical Problems” have been deposited in the archives of the Historical Resources Branch, Marine Corps History Division, Quantico, VA. The first, dated 8 December 1934 and located in folder 631 of the Historical Amphibious Files, is a typescript. The other, which bears no date and seems to be a carbon copy of the first, can be found in folder 4, box 19, Personal Papers of James Carson Breckinridge.

⁶¹ James Carson Breckinridge, “The Problem of the Eastern Military District of Santo Domingo, 1919–1920,” folder 631, Historical Amphibious File, Historical Resources Branch, Marine Corps History Division, Quantico, VA.

⁶² Best known for his studies of the English Civil War, Macaulay argued that progress achieved by the champions of Parliament in the seventeenth century (the eponymous Whigs) laid the foundations of the representative institutions of the Victorian era.

that is, at once, both tragic and Clausewitzian. In other words, the saga of the Marine Corps Schools between 1920 and 1934 reminds us that, when it comes to changing the course of a curriculum, let alone a national institution, everything is simple—but the simplest things are often extraordinarily difficult.

CHAPTER ELEVEN

Operation Weserubung

Early Amphibious Multidomain Operations

James K. Greer

INTRODUCTION

As the U.S. military enters the third decade of the twenty-first century, the focus of the armed forces has shifted toward large-scale combat operations against peer competitors. New concepts of operations are being drafted, experimented with, and adopted into doctrine, along with the necessary force development to translate those concepts into reality. While different due to Service perspectives and missions, the emerging concepts in the various Services all center on the idea of multidomain operations (MDO) with even the latest Joint concept, the *Joint Operational Access Concept (JOAC)*, having as its focus cross-domain synergy.¹ Each of these concepts envisions the necessity to overcome enemy antiaccess/area-denial (A₂/AD) operations and capabilities, quite possibly employing amphibious operations, as each of the major regional scenarios and potential opponents has significant littoral terrain. Since these are emerging concepts, examples of early amphibious operations with multidomain characteristics may be instructive. One such campaign is Operation Weserubung, the April 1940 German invasion of Norway.

¹ *Joint Operational Access Concept (JOAC), Version 1.0* (Washington, DC: Department of Defense, 2012). The U.S. Army and Air Force both refer to their emerging concepts as multidomain operations (MDO), while the relevant Navy concept is termed *distributed lethality* and the Marine Corps concept is *expeditionary advanced base operations*.

The central idea of MDO is the *rapid and continuous integration of all domains of warfare*. The operational approach is that joint forces will first *compete* to deter and if deterrence fails, set conditions for success in conflict. Once conflict commences, joint forces will *penetrate* and *disintegrate* enemy A2/AD systems, *exploit* the resulting freedom of action to defeat the enemy and achieve strategic objectives, and then *return to competition* under conditions more favorable at the outset. Central also to the operational approach is the idea of *convergence* of capabilities from, across, and between all five domains—land, air, sea, space, and cyber—in time and space to overmatch the enemy.² At the operational level, Operation Weserubung with its five near-simultaneous amphibious assaults is illustrative of that rapid and continuous integration of all domains of warfare. This campaign further illustrates the core multidomain concepts of penetration, disintegration, exploitation, and convergence across the domains of sea, air, land, and to a limited extent the electromagnetic spectrum, starting with the German planning and initial competition with the Allies and the Norwegians.

CAMPAIGN PLANNING AND PREPARATION

After the 1939 victory in Poland, Adolf Hitler turned his attention westward and to the British and French with whom he was now at war. In laying out their war strategy, German military and civilian leadership were concerned about securing their primary source of iron ore, which ran from Sweden through the Norwegian ports by train and then by sea to Germany. Hitler had also read Wolfgang Wegener's *The Naval Strategy of the World War*, which suggested that in World War I Germany could have broken the blockade that eventually strangled the country and hastened the German capitulation by invading Norway.³ The head of the *Kriegsmarine* (German Navy), Admiral Erich Raeder, also favored an invasion of Norway for the same reason. Moreover, he urged an early operation, as Allied naval strength would continue to grow faster than that of Germany.

While Hitler initially favored maintaining Norwegian neutrality, he ordered a study of a possible invasion of Norway. Codenamed Studie Nord (North Study), it was conducted by a small staff directly under the *Wehrmacht's* (German Armed Forces) chief of operations, General Alfred Jodl. Strategic reconnaissance of Norway was conducted by the German attachés already in Norway—the German *Abwehr* (Intelligence Service) and *Luftwaffe Reconnaissance Squadron* “Rowel”—which conducted high-altitude missions to escape detection.⁴ The Studie Nord team used

² *The U.S. Army in Multi-Domain Operations, 2028*, TRADOC Pamphlet 525-3-1 (Fort Eustis, VA: U.S. Army Training and Doctrine Command, 2018).

³ Chris Mann and Christer Jörgensen, *Hitler's Arctic War: The German Campaigns in Norway, Finland and the USSR, 1940-1945* (New York: St Martin's Press, 2002), 34. Wolfgang Wegener's work, *The Naval Strategy of the World War*, was republished by Naval Institute Press in 1989.

⁴ Earl F. Ziemke, *The German Northern Theater of Operations, 1940-1945*, Department of the Army Pamphlet 20-271 (Washington, DC: Department of the Army, 1959), 8.



FIGURE 36
Map of the German landing sites for
Operation Weserübung.
Creative Commons

this reconnaissance to develop an analysis of the potential to invade and conquer Norway.

The deliberate planning that followed was not “joint” in the sense that today’s campaign planning is conducted by joint task forces or combatant commands. The German *Wehrmacht* did create a planning staff that included members of the land, sea, and air services that was led by Navy Captain Theodor Krancke and answered directly to Hitler. The Krancke planning staff developed the basic plan for the invasion, which centered on as near as possible simultaneous amphibious assaults on the major port, population, and military centers of Narvik, Trondheim, Bergen, Kristiansand, and Oslo (figure 36). Their planning suggested that an army corps, including moun-

tain troops prepared for winter operations; a sizable *Luftwaffe* bomber, fighter, and parachute force; and most of the German Navy would be required for the invasion. Last, the Krancke staff determined that to invade and occupy Norway, they would also have to seize mainland Denmark to facilitate logistics.⁵ While not truly joint planning in the current sense, the German planners did integrate the land, sea, and air operations and for the first time in history integrated the employment of airborne parachute operations with the amphibious operations.⁶ As the planning unfolded, the unique characteristics of the operational environment, particularly the geography and the enemy, shaped the German approach to the amphibious operations.

The Norwegian coastline is extremely rugged, consisting primarily of huge cliffs that are broken occasionally by the entrances to the Norwegian fjords. The fjords are the result of rivers that start in the interior of the country and, flowing to the sea, cut their way through the mountainous terrain over millennia to create deep gorges. These fjords are the only way to reach the interior of the country from the sea, and consequently Norway's cities, towns, and airports grew up around the fjords. Each of the German objectives in 1940 was in fact a port city located some miles inland on a narrow fjord. This presented a unique challenge for amphibious operations. It would be very difficult for the German military to mass forces in their attacks, in the way that we usually envision amphibious operations that take place across a beach. Instead, in a manner similar to the way the U.S. *Marine Corps Operating Concept* calls for multiple Marine Air-Ground Task Forces (MAGTFs) to operate in a distributed posture in a complex nonpermissive environment, so the German amphibious campaign would consist of several operations, each along one fjord, and each of which in turn was broken down into numerous smaller operations.⁷

The Norwegian defenses of fjords were relatively consistent. Most were guarded by coast artillery batteries designed to prevent travel up the fjord from the sea. Additionally, Norwegian coastal patrol vessels patrolled the fjords to prevent ships from moving up the fjords to the port cities. Finally, during the months leading up to the German operation, the British attempted to lay minefields outside of the major fjords as an additional layer of antiaccess/area-denial (A₂/AD). These factors drove the Germans to organize their forces to cross the North Sea guarded by the British Navy, pass or subdue shore batteries, defeat patrol boats, and then land to secure their objectives.

Given the variety of tasks, the distances, and the need to secure all five locations near-simultaneously, the German naval forces were allocated into five major groups as follows:

⁵ Ziemke, *The German Northern Theater of Operations, 1940-1945*, 13-16.

⁶ Col Phillip S. Meilinger, USAF (Ret), "Jointness and the Norwegian Campaign, 1940," *Air and Space Power Journal* 31, no. 1 (Spring 2017): 4-14.

⁷ *Marine Corps Operating Concept: How an Expeditionary Force Operates in the 21st Century* (Washington, DC: Headquarters Marine Corps, 2016), 16.

- Group 1 (Narvik): battle cruisers SMS *Scharnhorst* (1936) and *Gneisenau* (1936) and 10 destroyers carrying 2,000 troops
- Group 2 (Trondheim): cruiser SMS *Admiral Hipper* (1937) and four destroyers carrying 1,700 troops
- Group 3 (Bergen): cruisers SMS *Köln* (1928) and *Königsberg* (1915), logistics ships *Bremse* (1933) and *Carl Peters* (1940), and eight torpedo boats carrying 1,900 troops
- Group 4 (Kristiansand): cruiser *Karlsruhe* (1929), logistics ship *Tsingtao* (1934), and 10 torpedo boats carrying 1,100 troops
- Group 5 (Oslo): cruisers *Blücher* (1939), *Emden* (1925), and *Lützow* (1939), three torpedo boats, two whaling boats, and eight minesweepers carrying 2,000 troops⁸

PENETRATE

Initial German operations were aimed at the problem of penetrating the anti-access challenge presented by the British Navy and Royal Air Force to reach their five amphibious objective areas along the coast of Norway. That penetration phase relied on security, surprise, speed, and simultaneity. In the Spring of 1940, the Allies and Germany were in what today's MDO terms the *competition phase*. In support of that competition and to shape the operational environment in their favor, the Germans undertook to delay any realization by the Allies or the Norwegians that an invasion was taking place. One effort was diplomatic deception. On 5 April, Hermann Göring invited the diplomatic corps in Berlin to a viewing of the motion picture *Feuertaufe* (Baptism of Fire), chronicling the German *Luftwaffe* operations in Poland.⁹ During the two days preceding the invasion, 7–9 April, the German government invited all the Allied foreign military attachés for an inspection of the West Wall (a.k.a. Siegfried Line) along the French border, hundreds of miles from Berlin and their embassies. All of these efforts were designed to draw attention away from Norway and toward the looming conflict in the west.¹⁰ To gauge the success of these efforts, German signals intelligence electronic warfare platoons were positioned in northern Germany to collect intelligence on the Norwegian and British reactions to initial German operations.¹¹

Given the overwhelming British naval superiority, Britain and France's own plans for operations in Norway, the limited numbers of German troops who could be ferried the long distances by warship, the risk of limited capabilities to resupply the invasion force by sea, and the necessity to defeat the Norwegians before the Allies could respond, surprise was paramount in planning and executing *Weserübung*. Sur-

⁸ Ziemke, *The German Northern Theater of Operations, 1940–1945*, 26–29.

⁹ *Feuertaufe* (Germany, Ministry of Propaganda, 1940), black and white 35mm, 76 min.

¹⁰ Ziemke, *The German Northern Theater of Operations, 1940–1945*, 41.

¹¹ *German Radio Intelligence* (Neumarkt, Germany: Historical Division, Headquarters European Command, 1950), 15–16.

prise defined the German approach to success in what today we term *penetration of the antiaccess envelope*.¹² Such penetration was absolutely essential to reach the coast and conduct the amphibious operations that would enable them to invade Norway. Operations security was critical for surprise, so much so that German soldiers were not informed of their destination or that they were conducting a seaborne invasion until the afternoon of 8 April, when they were already at sea on their way to Norway in the German destroyers and cruisers.¹³ Similarly, the German paratroopers were not given their objectives until the day before their first-ever combat airborne mission. The time was so short that the German airborne company commander, Captain Walter Gericke, was forced to lead his operation using only a civilian road map and some postcards of the countryside.¹⁴

To invade Norway, the German forces had to penetrate the anti-access operations of the British, which consisted of surface warships, submarines, patrolling aircraft, and mines. In doing so, the weaker German forces would use surprise and speed to provide security for their invasion before the British could react. On 8 April, the German flotilla surged north toward their respective objectives, hugging the Norwegian coast to the extent they could. The German groups at greatest risk were those headed to the most distant objectives of Trondheim and Narvik. Accordingly, Admiral Gunther Lütjens, overall commander of the German flotilla, had the heavy cruiser *Hipper* escort the group to Trondheim and the battle cruisers *Gneisenau* and *Scharnhorst* escort the group to Narvik. Since a significant component of the British A2/AD strategy was their superiority at sea, the heavy German warships served as a major component of the penetration operation and in fact, on several occasions during the first day's operations, provided cover for the amphibious assault shipping against a British fleet that would have easily destroyed the destroyers and light cruisers carrying the bulk of the landing forces.¹⁵

Ideally, penetrating enemy A2/AD efforts is accomplished through more than one domain. During Operation Weserübung, in addition to penetrating the British antiaccess efforts by sea, the German forces believed they also had to penetrate by air. During the preparation for Weserübung, the planners faced a dilemma. Given the vast distances from Germany, the *Luftwaffe* aircraft simply did not have the range required to reach the critical objectives in Norway, conduct their missions, and return. The *Luftwaffe* was required to support the initial amphibious operations and deny the sea approaches to the British to prevent a counterattack. Moreover, the German planners fully expected to lose the ability to move at sea after the initial surprise waned, and that meant airlifting the majority of the reinforcing troops and supplies into Norway soon after the initial amphibious assaults became a critical task.

¹² *The U.S. Army in Multi-Domain Operations*, 2028.

¹³ Niklas Zetterling, *Blitzkrieg from the Ground Up* (Philadelphia, PA: Casemate, 2017), 89.

¹⁴ Chris Ellis, *7th Fliieger Division: Student's Fallschirmjäger Elite* (Surrey, UK: Ian Allan Publishing, 2002), 22.

¹⁵ Henrik O. Lunde, *Hitler's Pre-Emptive War: The Battle for Norway, 1940* (Philadelphia, PA: Casemate, 2009), 102–19.

Taken together, those challenges demanded that the German forces secure critical airfields in Norway as soon as possible after the amphibious landings or even simultaneously if that could be done. The only solution was to employ their new airborne forces to jump in and secure the critical airfields of Fornebu and Sola for the purpose of airlifting in critical reinforcements and supplies. The first successful parachute assault was at the Sola airfield, near the port of Stavanger. There, First Lieutenant Freiherr Heinz Henning von Brandis and a company from the *7th Flieger Division* jumped directly onto the airfield from a height of only 140 meters against heavy anti-aircraft fire. Aided by the strafing gunfire of two supporting long-range fighters, in only 31 minutes, they had secured the airfield. Almost immediately, follow-on reinforcing German troops began to land from transport aircraft that had already been in the air when the parachute drop commenced.¹⁶

The second critical airfield was at Fornebu, outside the Norwegian capital of Oslo. The parachute assault there did not go as smoothly. Captain Walter and his company were supposed to take the airfield, but the aircraft dealt instead with heavy fog and Norwegian anti-aircraft fire. Two of the Junker Ju 52 transports collided and crashed and the remainder turned away. Lieutenant Werner Hanson, commanding an escorting flight of eight Messerschmitt Bf 110 long-range twin engine fighters, did not know the paratroopers had turned back. He pressed on, defeating the airfield defense of a few Norwegian biplanes and strafing the airfield. Captain Richard Wagner, commanding the air transports carrying an infantry battalion, was supposed to turn back when the paratroopers did. However, seeing the Bf 110 in action, he decided to land and seize the airfield. The fighters were low on fuel, however, and were forced to land at the airfield. As they landed, they served as mobile machine guns, followed by Wagner's transports carrying the infantry.¹⁷ Although Wagner was killed when Norwegian fire hit his plane as it landed, his bravery and decisiveness enabled the Germans to take the airfield. Meanwhile, the planes carrying the paratroopers turned around and returned to the airfield. Eventually, they were able to land the paratroopers in the confusion surrounding the engagement of the Norwegian defenses by the escorting German fighter aircraft.¹⁸ The end result of these two airborne operations was the penetration of the British and Norwegian A2/AD efforts, setting conditions for an almost immediate transition to exploitation by the airlifted German ground forces, who then moved to and aided in securing Oslo, one of the primary initial campaign objectives (figure 37).

DISINTEGRATE

In today's MDO, penetration is required to reach the amphibious objective area. Once

¹⁶ Franz Kurowski, *Jump into Hell: German Paratroopers in World War II* (New York: Stackpole Books, 2010), 21.

¹⁷ Mann and Jörgensen, *Hitler's Arctic War*, 51.

¹⁸ Ellis, *7th Flieger Division*, 22.

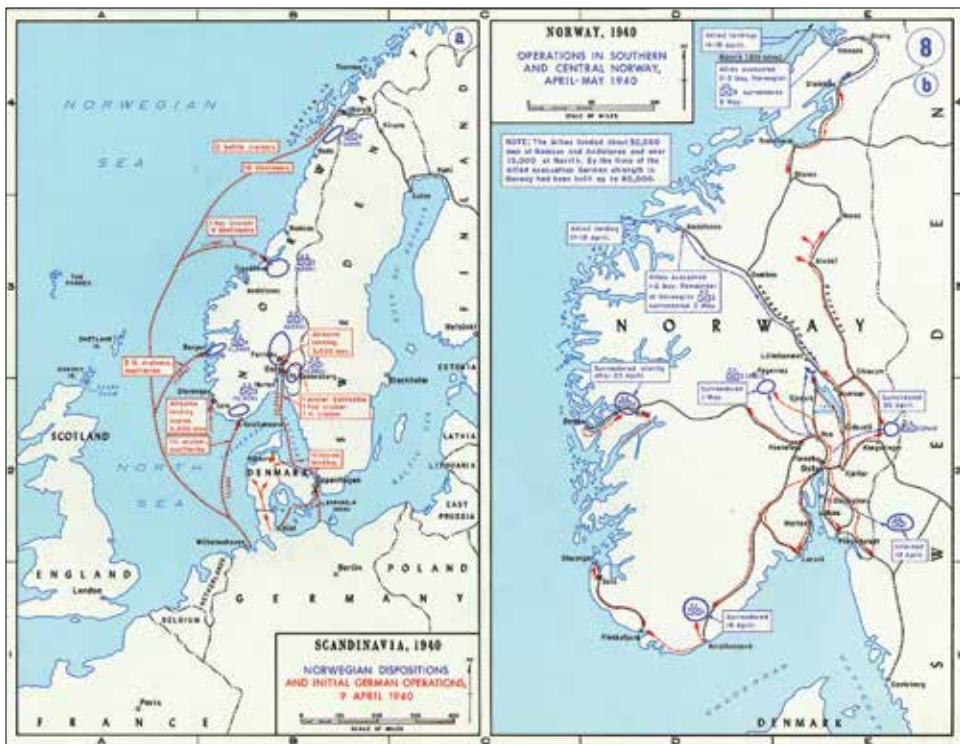


FIGURE 37
 Operations in Norway, April-May 1940.
West Point Atlas of Foreign Wars

there, the amphibious forces must disintegrate the area-denial operations of the defending forces. In the Norway campaign, this meant defeating the Norwegian coastal and port defense forces in each of the fjords or approaches to their objectives. At the operational level, penetration by sea up the fjords allowed the amphibious forces to reach their objective areas, while the landing of ground forces initiated the disintegration of the defending forces. For the southern objectives, Bergen, Kristiansand, and Oslo, airpower was integrated into penetration and disintegration operations, providing examples of the rapid and continuous integration across the domains of warfare called for in today's MDO concepts. At the tactical level, various combinations of sea, land, and air fires and maneuver were integrated to achieve local disintegration effects. Brief discussions of each of the five amphibious operations illustrate penetration, disintegration, and the integration across the sea, land, and air domains.

Narvik

The task of securing the most distant objective of Narvik was given to a flotilla of 10 destroyers led by Commodore Friedrich Bonte. Each of his destroyers carried 200 sol-

diers who would form the assault force that would secure Narvik under the command of General Eduard Dietl.¹⁹ After a night sailing north from Germany through terrible storms and seas that almost sank the small destroyers, the ships arrived at the mouth of the fjord leading to Narvik. Bonte detached one of his destroyers, the *Z17 Diether von Roeder* (1937), to patrol outside the fjord to provide security and early warning of a counterattack and also to search for the *Z12 Erich Giese* (1937), which had been separated from the rest of the flotilla during the storm. Next, Bonte had the *Z18 Hans Ludemann* (1937) and *Anton Schmitt* (1938) land their troops to seize two batteries of coastal artillery that guarded the entrance to the fjord. Landing in small boats, the troops found the batteries to be empty, but the key task had been accomplished. Advancing up the fjord, Bonte detached the *Z9 Wolfgang Zenker* (1936) and *Z13 Erich Koellner* (1937) up a branch in the fjord to seize the Norwegian Army training camp and depot at Elvegaardsmoen. The German mountain troops landed from the destroyers and secured the port, training camp, and depot, forestalling any Norwegian military mobilization in the area.²⁰

The last task fell to Bonte's remaining ships, the *Z11 Bernd von Arnim* (1936), *Z21 Wilhelm Heidkamp* (1938), and *Z2 Georg Thiele* (1935), to seize the port of Narvik. Narvik was defended by two old Norwegian coastal defense ships, the HNoMS *Eidsvold* (1900) and the HNoMS *Norge* (1900). Alerted to possible attack, the *Eidsvold* fired a warning shot across the bow of the German flagship, and still at this point neutral, demanded the Germans stop. From his flagship, Bonte sent an officer to negotiate a surrender with the Norwegian ship's Captain Odd Isaachsen Willoch. Willoch conferred with his superior ashore, but was told to fight. He informed the German boarding party of this decision and they returned to their ship. As they did, they fired a red star cluster, signaling the Norwegians would fight. Before the *Eidsvold* could even fire, the German ships fired torpedoes and sank the Norwegian vessel.²¹ The *Norge* was subsequently sunk by torpedoes from the *Bernd von Arnim* and the amphibious operation continued. Arriving at last at the port, they landed General Dietl's mountain troops, who assaulted through the town and secured it. Until this point the German operation to penetrate up the fjord, disintegrate the defenses of Narvik, and secure the port was a success.²²

Trondheim

As the German forces led by the heavy cruiser *Admiral Hipper* advanced up the Trondheim Fjord, they were engaged by the Norwegian batteries. Their fire was inaccurate while the fire of the German ships was both accurate and powerful, rapidly silencing each battery in turn. One battalion of German troops was landed by small boat from

¹⁹ J. L. Moulton, *A Study of Warfare in Three Dimensions: The Norwegian Campaign of 1940* (Athens: Ohio University Press, 1967), 79.

²⁰ Lunde, *Hitler's Pre-Emptive War*, 155–58.

²¹ Moulton, *A Study of Warfare in Three Dimensions*, 80–81.

²² Capt Peter Dickens, *Narvik: Battles in the Fjords* (Annapolis, MD: Naval Institute Press, 1974), 36–37.

two destroyers and immediately seized the shore batteries and prepared them to be used by the Germans against the expected Allied counterattack. Soon after penetrating the area-denial defenses of the fjord, the *Admiral Hipper* and two destroyers reached the port city and disembarked their troops. As the German mountain troops fanned out to secure key locations in the city, the regimental commander, Colonel Wilhelm Weiss, commandeered a car and went to the Norwegian 5th Division Headquarters and demanded the surrender of the city. The deputy commanding general of the Norwegian division surrendered the keys to the office.²³ The shore batteries at the mouth of the fjord held on longer, with their coast artillerymen fighting as infantry, until they were overwhelmed by the German mountain troops, at which point the defense disintegrated and Norwegian resistance in the Trondheim area effectively ceased.²⁴

Bergen

To secure the port of Bergen, the Germans sent a force under Rear Admiral Hubert Schmundt that included the *Koln*, the *Konigsberg*, the mine-layer *Bremse*, seven torpedo boats, and the supply ship *Carl Peters*. Of all the German task groups, this one was most at risk. With Bergen only nine hours away from the main British naval base at Scapa Flow, a quick reaction by the British could doom the assault on Bergen before it even started.²⁵ In the early morning dawn of 9 April, they advanced slowly up the fjord to the port of Bergen. En route, they were detected and the Norwegian shore batteries opened fire.²⁶ The shore batteries' fire was largely ineffective due to inoperable searchlights, old guns that misfired, and poor training. Still, they scored hits on the *Bremse* and the *Carl Peters* and inflicted significant damage on the *Konigsberg*, but the Germans were able to continue up the Korsfjorden to Bergen. In one of the early examples of MDO's integration across domains, the shore batteries were eventually taken by a combination of *Luftwaffe* attack by air, surface naval fires, and ground attack by a small force of the *69th Infantry Division* landed from the torpedo boats.²⁷ The Norwegians also had two torpedo boats defending the fjord, but these failed to engage and were not a factor in the defense.

After making their way up the fjord, the German troops transferred from ship to small boat or landed directly onto the piers in the port and rapidly secured the city. Almost immediately, Rear Admiral Schmundt was informed that *Luftwaffe* patrol planes had detected a British squadron approaching Bergen. He started his naval withdrawal at once, leaving behind only the damaged *Konigsberg* and *Bremse*. As soon as they secured the shore batteries, the German soldiers exploited their success by preparing the batteries for coastal defense against a British counterattack. As they

²³ Zetterling, *Blitzkrieg from the Ground Up*, 95.

²⁴ Moulton, *A Study of Warfare in Three Dimensions*, 86.

²⁵ Moulton, *A Study of Warfare in Three Dimensions*, 87.

²⁶ Zetterling, *Blitzkrieg from the Ground Up*, 89–90.

²⁷ Mann and Jørgensen, *Hitler's Arctic War*, 40.

prepared their defense, the German troop transport SS *Sao Paolo* and two other logistics ships struck mines and sank with considerable loss of life and war materiel, weakening the overall strength of the German force in Bergen.²⁸

Kristiansand

Group 4 had the mission of securing the ports of Arendal and Kristiansand, which proved more difficult than expected. The original attempt to penetrate the fjord by the light cruiser *Karlsruhe*, 10 torpedo boats, and the supply ship *Tsingtao* was defeated by shore fire from the fortress on the island of Odderøy, guarding the entrance to the fjord leading to Kristiansand's harbor. They retreated back offshore, but not before dropping off infantry to take the town of Arendal. The second attempt was preceded by a *Luftwaffe* air attack, but it too failed. The German flotilla then tried landing troops from the *163d Infantry Division* by torpedo boat, but that attempt also failed. Finally, the Germans used imitative deception, signaling the fortress in their own Norwegian radio code that British and French destroyers were coming to help. This time, the Norwegian fortress allowed the German ships to pass, aided by heavy fog that prevented positive identification. The Germans then proceeded up the fjord and captured the port of Kristiansand. They then began their exploitation by sending a force of 150 cyclists from the *69th Division* to capture the cable station at Egersund.²⁹

Oslo

As Group 5 advanced into the fjord toward Oslo, they were opposed by the strongest A2/AD forces of Norway. The first of these was the small patrol boat HNoMS *Pol III* (1926), which sounded the alarm, and then engaged the German heavy cruiser *Blucher* (1937) and two light cruisers, *Emden* and *Lutzow*. The *Pol III* was quickly sunk, but was able to damage the German torpedo boat *Albatross* (1926). The German forces then put troops ashore by small boat to attack two coast defense forts at Rauøy and Bollaerene from the rear and take them on the land side.³⁰ As the naval group continued up the fjord, they approached the major fortress of Oscarsborg, covering the narrows at Drøbak, where the fjord was only 600 yards wide. On the eastern shore of the narrows, a battery of 8-inch guns sat at the ready, and on the western shore, 11-inch guns plus torpedo tubes were trained on the narrows.

Colonel Birger K. Eriksen, commanding the Norwegian batteries, realized he would probably only have one salvo from his guns before the more modern and effective German ships' cannon destroyed his battery. Therefore, he waited until the very last minute, when the largest German ship was as close as possible, before engaging.³¹ Thus, as the *Blucher* came abreast of the Norwegian guns, they opened fire. A shell

²⁸ Moulton, *A Study of Warfare in Three Dimensions*, 88–89.

²⁹ Mann and Jørgensen, *Hitler's Arctic War*, 49.

³⁰ Mann and Jørgensen, *Hitler's Arctic War*, 50.

³¹ Francois Kersaudy, *Norway, 1940* (Lincoln: University of Nebraska Press, 1987), 69.

hit the *Blucher*'s aircraft hangar, setting fire to the aviation fuel, so that soon much of the ship was ablaze. Another shell damaged the steering gear, so that the *Blucher* was forced to slow to avoid running aground. Just then, the Norwegian fortress fired two torpedoes, both of which hit and destroyed the main engines and ignited more fires. These spread to the ammunition lockers and the resulting explosions doomed the ship. It capsized and sank, taking more than 1,000 personnel to their deaths, including most of the staff of the German *163d Division* that was to capture the Norwegian capital. With the initial attempt to penetrate the anti-access operations of the Norwegians having failed, the two remaining German light cruisers withdrew, taking with them most of the infantry who were to take the city.³²

Still determined to take Oslo after the sinking of the *Blucher*, the German forces regrouped and that afternoon conducted a deliberate assault that integrated air, land, and sea fires and maneuver as today's MDO concept of convergence suggests. Infantry troops were landed from the light cruisers and assaulted from the land side, while the *Emden* and *Lutzow* bombarded the fortress with their 6-inch guns. At the same time, *Luftwaffe* aircraft flying from northern Germany bombed the fortress. That afternoon, the eastern batteries were taken, but the western batteries were not taken until the morning of the next day.³³

CROSS-DOMAIN SYNERGY THROUGH AIRPOWER

In multidomain operations, cross-domain synergy is critical to overwhelming the enemy's ability to decide and act. Cross-domain synergy is not simply adding additional forces or fires from a different domain, but rather employing capabilities across domains in a manner that is complementary and enhances the effectiveness or compensates for vulnerabilities in other domains.³⁴ German planners knew that their forces would have to conduct the amphibious landings and secure the country while other forces faced seaward to protect against counterattack by the British Navy. With their limited naval forces vulnerable in the sea domain and tied up transporting and supporting the amphibious operations, the task of defense against counterattack fell to the *Luftwaffe*. On the afternoon of 9 April, as the amphibious attacks took place, the *Luftwaffe* conducted a sustained attack on the British home fleet. Admiral Geoffrey Layton's squadrons were attacked repeatedly with the battleship HMS *Rodney* (29) hit, cruisers HMS *Southampton* (83) and HMS *Glasgow* (C 21) damaged, and destroyer HMS *Gurkha* (F 20) sunk. While the overall effect of the attacks was limited, for the remainder of the campaign, the British were unwilling to risk their surface fleet against the German forces, except in the far north of Norway where the *Luftwaffe*

³² Capt Donald MacIntyre, *Narvik* (New York: W. W. Norton, 1959), 43–44.

³³ MacIntyre, *Narvik*, 44.

³⁴ *Cross-Domain Synergy in Operations: Planner's Guide* (Washington, DC: Joint Chiefs of Staff, Joint Force Development [J7], 2016), 1.

could only extend very limited airpower. German air forces demonstrated successful cross-domain synergy not simply by supplementing with additional firepower, but rather by compensating for German vulnerability in the sea domain.

Another example of cross-domain synergy occurred during German defense of Trondheim after the British began their counteroffensive. The German forces in Trondheim were threatened not only by the British pincer movements to the north and south of their positions, but also by Norwegian forces moving north after they had mobilized and formed outside Oslo. Lacking sufficient combat power and mobility, the German forces decided to interdict the northward advance of the Norwegians using airborne troops. Once again, operations from the air domain would cross into a more vulnerable domain, in this case the land one, and provide complementary rather than simply additive action by performing a critical mission.

The company that had dropped the first day to secure the Sola airfield flew north in Junker Ju 52 aircraft and jumped into the critical road and rail junction of Dombaas, directly on the line of march of the Norwegian forces. As soon as the transports neared the drop zone, they were taken under fire by Norwegian machine guns and one Junker Ju 52 was shot down. The commander, Lieutenant Herbert Schmidt and the remaining paratroopers jumped and, though scattered, managed to assemble and continue their mission.³⁵ Despite heavy fire they established their blocking position, interdicting rail and road movement by the Norwegian Army toward Trondheim. The German force defended for the next five days, halting the Norwegian progress and even sending out patrols to attack British elements moving south to link up with the Norwegians. However, after five days, they ran out of ammunition and had only one-half their number still effective. Lieutenant Schmidt, who remained in command in spite of being wounded, was forced to surrender to the Norwegians. As a result of this action, Lieutenant Schmidt was awarded the Knights Cross.³⁶ Though costly, their mission had greatly assisted the defense of Trondheim and the eventual success of the campaign.

CONCLUSION

The initial success of the five German amphibious operations was followed by a counteroffensive by the British and active defense by the remaining Norwegian Army forces. It would be six weeks before the Germans could drive the British from Norway, defeat the Norwegian Army, and truly exploit the success of their invasion by reopening the train lines and ports and resuming the flow of iron ore from Scandinavia to Germany. They would also exploit their newly gained operational position of advantage by using airfields in Norway for attacks on Britain and seaports in Norway as safer locations from which to sortie U-boats into the Atlantic.

The consequences of the April 1940 campaign in Norway were significant and

³⁵ Ellis, *7th Flieger Division*, 23.

³⁶ Joseph Kynoch, *Norway, 1940: The Forgotten Fiasco* (Shrewsbury, UK: Airlife Publishing, 2002), 15–16.

lasted for the remaining five years of World War II. The Germans obtained security on the northern flank of Europe. Additionally, with control of both Denmark and Norway, the Baltic Sea essentially became a German lake, providing not only ready access to the iron ore they required for the materials of war but also securing a northern logistics line of communication for the campaign in Russia. In fact, toward the end of the war when the Germans were on the defensive and their forces were cut off by Russian advances in the Baltics, they were still able to evacuate significant forces through the Baltic Sea back to Germany. Norway also provided a base for naval operations, specifically the U-boat operations into the North Atlantic. Thus, the U-boats operating from Norway were able to bypass much of the threat to their initial deployment and were able to reach the open sea and their hunting grounds much more safely than if they had been operating from Germany.

More importantly for the student of warfare, Operation Weserubung provides a historical example of today's MDO concepts through an amphibious campaign that integrated air, land, and sea operations from conception, through planning, to execution. In doing so, the operation demonstrates key MDO concepts that include: penetration and disintegration of A₂/AD forces, exploitation to accomplish operational objectives, cross-domain synergy, and the rapid and continuous integration of all domains of warfare. Moreover, the success of the German forces, even when outnumbered at sea and on land, demonstrates the importance of the combined arms, innovation, preparation, and decentralized decision-making necessary in amphibious operations. Finally, armies, navies, and air forces the size and power of those that won World War II simply no longer exist. Smaller forces are now required to approach their amphibious objective through waters and skies that are contested and forced to operate in a distributed manner to survive can learn much from this campaign. Security, surprise, speed, and simultaneity enabled the smaller German force to succeed, and that may be the template for the success of future amphibious operations.

CHAPTER TWELVE

The Reich Strikes Back

German Victory in the Dodecanese, October–November 1943

Jeffrey Schultz

INTRODUCTION

The Third Reich's fortunes peaked in 1942 and by mid-1943, Berlin's hopes for victory diminished steadily with defeats in Tunisia, Italy, and the Soviet Union.¹ An unexpected and unlikely German victory unfolded in autumn 1943 that escaped widespread attention postwar, however. In a time of Axis reversals in the wake of the Italian surrender, the Aegean Sea's Dodecanese Islands near Turkey offered "glittering prospects" but gained sudden and violent attention (figure 38).² British forces briefly held and then lost this seemingly critical territory that played an important role in quieting Allied aspirations of Turkey joining the war against Germany.³

Considered "a case study in audacity," the ephemeral 1943 Dodecanese campaign represented for both the Allies and Germany a backwater, where relatively small forc-

¹ Horst Boog, Gerhard Krebs, and Detlef Vogel, eds., *Germany and the Second World War*, vol. 7, *The Strategic Air War in Europe and the War in the West and East Asia, 1943–1944/5* (Oxford, UK: Clarendon Press, 2015), 463.

² The term *Dodecanese* means 12 islands and refers to a group of islands in the Aegean Sea off the southwestern coast of Turkey in southeastern Greece. *War Diary: German Naval Staff Operations Division*, pt. A, vol. 49, *September 1943* (Washington, DC: Office of Naval Intelligence, 1948), n.p.; and Tony Ross, "The Aegean Campaign—A Personal Perspective," *Royal Air Force Historical Society Journal* 46 (2009): 161.

³ Winston Churchill, *Closing the Ring*, vol. 5, *The Second World War* (Boston, MA: Houghton Mifflin, 1951), 181.



FIGURE 38
Map of the Dodecanese Islands.
Perry-Castañeda Library Map Collection, University of Texas in Austin

es clashed in a critical arena that amounted to securing or exposing a vulnerable flank in the shadow of a coveted neutral.⁴ Allied success could hasten the war's end by gaining another Allied nation, whereas German success might prolong resistance and keep Turkey out of the war. Adolf Hitler's reasons for holding onto the Dodecanese extended past purely military into economic grounds as resources dwindled.⁵

*Hitler refused to abandon southern Greece or the Aegean Islands not only because he was reluctant to give up territory, but also because at the time an estimated 50 percent of Germany's oil, 60 percent of its bauxite, 100 percent of its chrome, 24 percent of its antimony, and 21 percent of its copper came from the Balkans. Thus every fortified island and the Greek coast had to be defended by order of the Führer.*⁶

British prime minister Winston Churchill advocated in early 1943 for securing Rhodes, the largest of the Italian-occupied Dodecanese islands, and the strategic sur-

⁴ Ian Gooderson, "Shoestring Strategy: The British Campaign in the Aegean, 1943," *Journal of Strategic Studies* 25, no. 3 (2010): 1, <https://doi.org/10.1080/01402390412331302755>.

⁵ Boog, Krebs, and Vogel, *Germany and the Second World War*, vol. 7, 463–64.

⁶ J. E. Kaufmann and H. W. Kaufmann, *Fortress Third Reich: German Fortifications and Defense Systems in World War II* (Cambridge, MA: Da Capo Press, 2003), 266.

rounding islands as part of the proposed Operation Accolade.⁷ Owing to the ongoing Italian campaign's need for military resources of all kinds, Churchill was never able to redirect sufficient troops, planes, or ships to mount the effort.⁸ Instead, he was forced to gather what he could from the existing resources in the eastern Mediterranean, some of which served as garrison troops or otherwise could not be considered the paramount forces for the job. Regardless, the British pushed forward with the plan and occupied some of the Dodecanese, in particular Kos and Leros, while failing to occupy the most important, Rhodes, due to swift German action.⁹ Leros even offered a fortified naval base called the "Corregidor of the Mediterranean."¹⁰

From 10–17 September 1943, the British occupied several of the Dodecanese Islands along with Samos near Turkey.¹¹ From October to November, the Allies launched a number of North Africa and Italy-based medium and heavy bomber raids on *Luftwaffe* bases in Greece, Crete, and Rhodes that caused some damage but did not significantly reduce the *Luftwaffe*'s combat power.¹²

Hitler reacted to the British Dodecanese threat by authorizing a counterstrike using whatever forces could assemble in the Aegean. Soon, the combined efforts of the *Luftwaffe*, *Heer* (Army), and *Kriegsmarine* (Navy) struck back at Kos in Operation Polar Bear (*Eisbär*) in October and Leros in Operation Leopard/Typhoon (*Taifun*) in November. Using interior lines of communication and distant reinforcement, along with considerable improvisation and adaptation, the Germans temporarily established critical air superiority and recaptured Kos and Leros, thereby scoring a surprise victory—their last victory in the Mediterranean.¹³ This chapter seeks merely to highlight several key areas that contributed to the German victory, offering reflections as

⁷ Lawrence Paterson, *Hitler's Forgotten Flotillas: Kriegsmarine Security Forces* (Barnsley, UK: Seaforth Publishing, 2017), 252; Gooderson, "Shoestring Strategy," 4; and Nicholas Doumanis, "Italy's Aegean Possession: the Dodecanese Islands, 1912-1947," in *Myth and Memory in the Mediterranean* (London: Palgrave Macmillan, 1997), 34, <https://doi.org/10.1057/9780230376953-3>.

⁸ Ross, "The Aegean Campaign," 162.

⁹ Charles W. Koburger Jr., *Wine-dark, Blood Red Sea: Naval Warfare in the Aegean, 1941–1946* (Westport, CT: Praeger, 1999), 116; Capt S. W. Roskill, *War at Sea, 1939–1945*, vol. 3, *The Offensive*, pt. 1, *1st June 1943–31st May 1944* (London: Her Majesty's Stationery Office, 1954), location 4222, eBook; and Peter Schenk, *Kampf um die Ägäis: die Kriegsmarine in den griechischen Gewässern 1941–1945* (Hamburg, Germany: Verlag E. S. Mittler and Sohn GmbH, 2000), 52–54.

¹⁰ Vincent P. O'Hara, W. David Dickson, and Richard Worth, *On Seas Contested: The Seven Great Navies of the Second World War* (Annapolis, MD: Naval Institute Press, 2010), 147; Susan Heuck Allen, *Classical Spies: American Archaeologists with the OSS in World War II Greece* (Ann Arbor: University of Michigan Press, 2013), 143; and Doumanis, "Italy's Aegean Possession," 45.

¹¹ Hans Peter Eisenbach, *Fronteinsätze eines Stuka-Fliegers: Mittelmeer und Ostfront 1943–44, Dokumentations-Reihe: Der Krieg von unten 1939–45* (Aachen, Germany: Helios Verlag, 2009), 67.

¹² Percy E. Schramm, ed., *Kriegstagebuch des Oberkommandos der Wehrmacht 1. Januar 1943–31. Dezember 1943 (Wehrmachtführungsstab) III/2, Band 6* (Bonn: Bernard & Graefe Verlag, 2005), 459; and Eisenbach, *Fronteinsätze eines Stuka-Fliegers*, 67.

¹³ Field Marshal Lord Alanbrooke, *War Diaries, 1939–1945* (Berkeley: University of California Press, 2001), 476.

to why the British failed when ostensibly they should have had the means to defeat their foes.

KOS AND LEROS

A brief history of the campaign follows, as a sketch of the two main battles, to better explain the factors that helped to decide the overall results. In September 1943, the Italians suddenly surrendered, which forced the Germans to react swiftly to secure Italian facilities and units before the Allies could take over (Operation Axis [*Achse*]). While the surrender was politically damaging for the Germans, the German commander in Italy, Field Marshal Albert Kesselring, assessed that the loss of the Italian armed forces “made no serious gap” in the German defensive plans owing to a lack of “eagerness to fight.”¹⁴

While British plans for Operation Accolade continued to develop, Churchill could not procure the Allied assistance he needed to fully imagine the plan. As such, the British continued to secure the Dodecanese so that by the end of September, they held Icaria, Astypalaia, Samos, Symi, Kalymnos, Kos, and Leros even while knowing they did not have the requisite assets. After Churchill’s fateful 9 September 1943 “improvise and dare” directive to General Sir Henry Wilson, commander-in-chief of Middle East Command, the plan took shape.¹⁵ The British would make no effort to capture Rhodes, owing to the German garrison of General Ulrich Kleemann’s “lavishly equipped and extremely mobile” *Assault Division Rhodes* (*Sturm-Division Rhodos*), which quickly took control after the Italian surrender.¹⁶

German concern about the potential loss of the Crete-Dodecanese region was discussed at the 24 September 1943 conference with the Führer when both the *Kriegsmarine* and the *Heer* argued that the Aegean should be evacuated to conserve combat power.¹⁷ As Churchill points out in his memoirs, those forces would be needed later, not wasted on what amounted to a far-flung string of islands that would do little to assist the main defense and whose retention created more logistics problems for the Germans. In spite of these fears, Hitler refused to abandon the region and instead demanded efforts be undertaken to hold the islands as long as possible for what he deemed the “political repercussions which would necessarily follow.”¹⁸ As Churchill

¹⁴ *War Diary*, pt. A, vol. 49, n.p.; and Albert Kesselring, *The Memoirs of Field-Marshal Kesselring* (Novato, CA: Presidio Press, 1989), 177.

¹⁵ Churchill, *Closing the Ring*, vol. 5, 182.

¹⁶ Luther Craig, “German Defensive Policy in the Balkans, a Case Study: The Buildup in Greece 1943,” *Balkan Studies* 23, no. 2 (1982): 403–20; Samuel W. Mitcham Jr., *German Order of Battle*, vol. 2, 291st–999th Infantry Divisions, Named Infantry Divisions, and Special Divisions in WWII, Stackpole Military History Series (Mechanicsburg, PA: Stackpole Books, 2007), 204–5, 227–28; and Allen, *Classical Spies*, 142.

¹⁷ *Fuehrer Conferences on Matters Dealing with the German Navy, 1943* (Washington, DC: Office of Naval Intelligence, Department of the Navy, 1943), 150–51.

¹⁸ Churchill, *Closing the Ring*, vol. 5, 184–85; and *Fuehrer Conferences on Matters Dealing with the German Navy, 1943*, 150–51.

later lamented, “[Hitler] gained large profits in a subsidiary theatre at small cost to the main strategic position.”¹⁹

The September 1943 Italian surrender might well have brought Rhodes under British control as the Italians greatly outnumbered the German forces on the critical island, with the 50th “Regina” Infantry Division as well as antiaircraft and artillery regiments.²⁰ British Special Air Service personnel tried to influence the Italians with envoys but failed to stop the handover.²¹ The smaller German garrison brought the island and its valuable airfields under their control, which doomed Operation Accolade.²² Holding Rhodes proved a key development as a sort of “German Malta” that the British never could capture.²³ Without Rhodes, the plan to use the British-controlled islands as bases for “piratical war on enemy communications in [the] Aegean” proved wholly impossible.²⁴

As a result, the British were forced to secure easier locales that offered some kind of airfield or port facility. The narrow, rocky island of Kos was “strategically the most important,” according to Churchill, owing to a small sandy airfield at Antimachia.²⁵ It was the only such remaining airfield in the Aegean, which made it a key to the region. The next nearest airfield in Cyprus was almost 500 kilometers away.²⁶ In contrast, Leros offered only seaplane stations.²⁷

To garrison Kos, the British landed the 1st Battalion, Durham Light Infantry (DLI), and Royal Air Force (RAF) antiaircraft gunners of No. 2909 Squadron, RAF Regiment, No. 7 South African Air Force (SAAF) Squadron, and elements of No. 74 RAF Squadron also arrived, both equipped with single-seat Supermarine Spitfires along with some 3,600 Italians of dubious motivation with a handful of light coastal and antiaircraft guns.²⁸ The British garrison did not possess anything larger than

¹⁹ Churchill, *Closing the Ring*, vol. 5, 185.

²⁰ George F. Nafziger, *Italian Order of Battle World War II: An Organizational History of the Italian Army in World War II*, vol. 2, *The Infantry Divisions* (West Chester, UK: Nafziger Collection, 1996), 50–51; and Peter C. Smith, and Edwin R. Walker, *War in the Aegean: the Campaign for the Eastern Mediterranean in WWII*, Stackpole Military History Series (Mechanicsburg, PA: Stackpole Books, 2008), 281.

²¹ Churchill, *Closing the Ring*, vol. 5, 182; and Doumanis, “Italy’s Aegean Possession,” 57.

²² Brig C. J. C. Molony, *The Mediterranean and the Middle East*, vol. 5, *The Campaign in Sicily, 1943, and the Campaign in Italy, 3d September 1943 to 31 March 1944*, History of the Second World War Series (London: Her Majesty’s Stationary Office, 1973), 533, 543.

²³ Molony, *The Mediterranean and the Middle East*, vol. 5, 533.

²⁴ Molony, *The Mediterranean and the Middle East*, vol. 5, 539.

²⁵ Churchill, *Closing the Ring*, vol. 5, 185; and Henry L. deZeng IV, “Luftwaffe Airfields, 1935–45: Greece, Crete and the Dodecanese” (unpublished manuscript, 2014), 5.

²⁶ Eisenbach, *Fronteinsatz eines Stuka-Fliegers*, 67; D. P. Tidy, “Dodecanese Disaster and the Battle of Simi—1943,” *South African Military History Society Military History Journal* 1, no. 2 (June 1968); and Churchill, *Closing the Ring*, vol. 5, 185.

²⁷ deZeng, “Luftwaffe Airfields, 1935–45,” 40–41.

²⁸ Molony, *The Mediterranean and the Middle East*, vol. 5, 539; and “OC 2909 Sqn RAF Regiment Diary,” RAF Regiment Heritage Centre, accessed 27 February 2020.

mortars, owing to transport limitations.²⁹ To counter the British garrison, Germany launched air raids using so-called “Butterfly” bombs (*Sprengbombe Dickwandig*, 2 kilograms) during raids, which “made Antimachia temporarily unserviceable.”³⁰ Also, Germany’s bitter experience gained during the 1941 invasion of Crete regarding weak sea convoys tangling with roving packs of Royal Navy cruisers and destroyers could not be ignored by planners, but they had to accept the risk.³¹

The British defenders suffered under heavy *Luftwaffe* air attacks that culminated in a “daring attack” on 3 October 1943 when *Brandenburger* paratroopers landed and overwhelmed the lone British company holding the airfield.³² Simultaneously, four different amphibious landings escorted by three destroyers struck a “double blow” overwhelming the defenses.³³ On 1 October, four small German convoys set sail from Crete and Greece for Kos. All four arrived safely due to lack of Allied interference, resulting in the loss of Churchill’s “trophy”.³⁴ The Germans landed at the widely separated points of Marmari and Tigachi, Forbici, Camare Bay, and Cape Foca on the constricted, stony island of Kos.³⁵

These landings put *Battlegroup (Kampfgruppe) von Saldern*, named for Major Sylvester von Saldern, on the north coast and *Kampfgruppe Aschoff*, named for Captain Philipp Aschoff, on the south coast like a developing vise. In conjunction, *Kampfgruppe Kuhlmann’s Brandenburger Küstenjäger* (coastal raiders) landed on the southwest coast and linked with the *Brandenburger* paratroopers, which battered the defenders into submission.³⁶ This dispersed landing strategy proved a tactically sound decision given the need for quickness due to uncertain German logistics and Allied air and

²⁹ “No. 445 (Part 3), Churchill to Roosevelt, October 1943,” National Archives and Records Administration, Franklin D. Roosevelt Library and Museum, Hyde Park, NY, accessed 3 November 2019, 294.

³⁰ “German SD 2 ‘Butterfly’ Bomb: Private S W Gallahar, 2/6 Ammunition Sub Depot Company, AIF,” Australian War Memorial Collection, accessed 25 June 2020; Denis Richards and Hilary St. G. Saunders, *The Royal Air Force 1939–1945*, vol. 2, *The Fight Avails*, History of the Second World War Series (London: Her Majesty’s Stationery Office, 1954), 342; and Tidy, “Dodecanese Disaster and the Battle of Simi–1943.”

³¹ Walter Ansel, *Hitler and the Middle Sea* (Durham, NC: Duke University Press, 1972), 327–37; and O’Hara, Dickson, and Worth, *On Seas Contested*, 50, 136.

³² “Reich Forces Score Big Success in Dodecanese,” *Syonan Shimbun* (Shonan Times), 5 October 1943; and Anthony Rogers, *Kos and Leros, 1943: The German Conquest of the Dodecanese* (Oxford, UK: Osprey Press, 2019), 28–32.

³³ Churchill, *Closing the Ring*, vol. 5, 185; *War Diary: German Naval Staff Operations Division*, pt. A, vol. 50, *October 1943* (Washington, DC: Office of Naval Intelligence, 1948), n.p.; and Jeffrey Holland, *The Aegean Mission: Allied Operations in the Dodecanese, 1943*, Contributions in Military Studies, Number 77 (New York: Greenwood Press, 1988), 121.

³⁴ Vincent P. O’Hara, *The German Fleet at War, 1939–1945* (Annapolis, MD: Naval Institute Press, 2011), 170; and Alanbrooke, *War Diaries, 1939–1945*, 458.

³⁵ Holland, *The Aegean Mission*, 121; Anthony Rogers, *Churchill’s Folly: Leros and the Aegean; The Last Great British Defeat of the Second World War* (London: Cassell, 2003), 50–57; and Paterson, *Hitler’s Forgotten Flo-tillas*, 254.

³⁶ Rogers, *Kos and Leros, 1943*, 28–32.

naval dominance.³⁷ According to Squadron Leader D. P. Tidy of No. 74 Squadron, the roughly 1,500 German attackers were “well-armed with light artillery and armored cars” and along with effective Junkers Ju 87 “Stuka” dive bomber attacks eventually overwhelmed the 1st Durham Light Infantry who “fought savagely and gallantly” until overrun.³⁸

Operation Polar Bear had succeeded in securing the key airfield and caused Churchill much vexation.³⁹ The 1,500 German attackers took approximately 900 Allied and another 3,000 Italians prisoner in addition to the killed and wounded on Kos plus valuable supplies.⁴⁰ While the garrison provided “stubborn resistance,” Tidy further mused that “boldness is no substitute for effective air cover,” which plagued the entire Allied Dodecanese effort.⁴¹

While the events on Kos did not go in the Allies’ favor, an example of the Royal Navy’s effectiveness can be seen in an encounter on 8 October 1943 between a German convoy transporting an intended penal infantry garrison battalion for Kos and a Royal Navy force built around the cruisers HMS *Penelope* (97) and *Sirius* (82) with destroyers HMS *Fury* (H 76) and *Faulknor* (H 62) escorting.⁴² After a limited attack by the British submarine HMS *Unruly* (P 49), the nearby warships headed to intercept.⁴³ They annihilated almost all of the German vessels, which originally consisted of freighter *Olympos*, the subchaser *UJ-2111* (ex-Italian *Tramaglio*) along with seven “naval ferry barges” (*Marinefährram*) or MFPs, except one of the MFPs that survived.⁴⁴ The destruction of the *Olympos* convoy likely forestalled the invasion of Leros, although not for long.⁴⁵

A month later, in November 1943, the Germans struck Leros, another small rocky island a mere “eight miles long by three miles at the widest point.”⁴⁶ The nar-

³⁷ Holland, *The Aegean Mission*, 121; Rogers, *Churchill’s Folly*, 50–57; and Paterson, *Hitler’s Forgotten Flotillas*, 254.

³⁸ Don Kindell, trans., “Levant Command—September to November 1943, October 3rd Entry,” Admiralty War Diaries of World War 2, Naval-History.net, accessed 29 January 2020; Tidy, “Dodecanese Disaster and the Battle of Simi—1943”; and Gooderson, “Shoestring Strategy,” 15.

³⁹ Alanbrooke, *War Diaries, 1939–1945*, 31, 457; and *War Diary*, pt. A, vol. 50, n.p.

⁴⁰ Tidy, “Dodecanese Disaster and the Battle of Simi—1943”; and Gooderson, “Shoestring Strategy,” 15–16.

⁴¹ VAdm Sir Algernon Willis, “Supplement to the London Gazette of Friday 8th October 1948,” *London Gazette*, 5372; and Tidy, “Dodecanese Disaster and the Battle of Simi—1943.”

⁴² O’Hara, *The German Fleet at War, 1939–1945*, 171; and Samuel W. Mitcham Jr., *German Order of Battle*, vol. 2, *291st–999th Infantry Divisions, Named Infantry Divisions, and Special Divisions in WWII*, Stackpole Military History Series (Mechanicsburg, PA: Stackpole Books, 2007), 154.

⁴³ O’Hara, *The German Fleet at War, 1939–1945*, 171; Schenk, *Kampf um die Ägäis*, 74; and Schramm, *Kriegstagebuch des Oberkommandos der Wehrmacht 1.Januar 1943–31.Dezember 1943 (Wehrmachtführungsstab) III/2*, Band 6, 456.

⁴⁴ Vincent O’Hara, *Struggle for the Middle Sea: The Great Navies at War in the Mediterranean, 1940–1945* (London: Conway, 2009), 233; and Eisenbach, *Fronteinsätze eines Stuka-Fliegers*, 68.

⁴⁵ “Supplement to the London Gazette of Friday 8th October 1948,” 5373.

⁴⁶ Associated Press, “Germans Land Reinforcements—Nazis Supply Aid to Leros by Air, Sea,” (*Ann Arbor*) *Michigan Daily*, 14 November 1943.

row confines of the island resembled “a bullring, [where] once inside, one had to perform.”⁴⁷ In late October, the British considered relinquishing the island but ultimately decided they “could neither hold nor evacuate.”⁴⁸ Originally codenamed Leopard, the name for invading Leros changed to Typhoon on 7 November due to security concerns.⁴⁹ For seven weeks leading up to the invasion, the *Luftwaffe* pounded the small, rocky island from the air, softening it up for the assault.⁵⁰ Again, as at Kos, the Royal Navy did all it could to interdict German shipping and, in this, enjoyed some success.⁵¹ While “overstretched and overburdened,” the British cruisers and escorting destroyers valiantly performed their duties under very difficult circumstances.⁵² However, when the German invasion force sailed for Leros, there was but a lone Bristol Type 156 Beaufighter aircraft on station with no British destroyers in position to attack. When their chance finally came, “not one [British] ship was within range of the elusive fleet.”⁵³

The 3,300 defenders of Leros came from the former Malta-based 234th Brigade, chiefly the following infantry battalions: 1st Battalion, King’s Own Regiment; 4th Battalion, Royal East Kent Regiment; 1st Battalion, Queen’s Own Royal West Kent Regiment; and 2d Battalion, Royal Irish Fusiliers Regiment.⁵⁴ In addition, there were about 5,000 Italians, perhaps one-half of them armed, along with a number of 76mm to 152mm coastal and antiaircraft batteries.⁵⁵ While the Italians are typically criticized for passivity, at least one coastal battery on Mount Vigla scored a direct hit on a small German vessel.⁵⁶

The invaders landed at multiple beaches including Vagia and Grifo Bays along with Appetici.⁵⁷ This not only split the defenders’ fire but also allowed the invaders to divide and conquer, as the island was arguably too large for the defenders to adequately cover all potential landing zones near Rachi Ridge.⁵⁸ In addition to amphib-

⁴⁷ Holland, *The Aegean Mission*, 148.

⁴⁸ Alanbrooke, *War Diaries, 1939–1945*, 464.

⁴⁹ *War Diary: German Naval Staff Operations Division*, pt. A, vol. 51, November 1943 (Washington, DC: Office of Naval Intelligence, 1948), n.p.; Eisenbach, *Fronteinsätze eines Stuka-Fliegers*, 75; and Rogers, *Kos and Leros, 1943*, 50.

⁵⁰ Koburger, *Wine-dark, Blood Red Sea*, 59; and Eisenbach, *Fronteinsätze eines Stuka-Fliegers*, 75.

⁵¹ “Levant Command—September to November 1943, October 3rd Entry.”

⁵² Richard Hammond, “British Policy on Total Maritime Warfare and the Anti-Shipping Campaign in the Mediterranean, 1940–1944,” *Journal of Strategic Studies* 36, no. 6 (2013): 810, <https://doi.org/10.1080/01402390.2012.719196>.

⁵³ O’Hara, *The German Fleet at War, 1939–1945*, 173.

⁵⁴ Rogers, *Kos and Leros, 1943*, 18; and Julie Peakman, *Hitler’s Island War: The Men Who Fought for Leros*, (London: I. B. Tauris, 2018), 37.

⁵⁵ Holland, *The Aegean Mission*, 126; and Winston G. Ramsey, ed. *After the Battle*, no. 90, *The Battle for Leros* (London: Battle of Britain Prints, 1995), 8.

⁵⁶ Rogers, *Churchill’s Folly*, 123.

⁵⁷ Rogers, *Churchill’s Folly*, 123.

⁵⁸ “Index of War Cabinet Minutes 1943: (W.M. (43) 1 to W.M. (43) 176),” printed for the War Cabinet, 1944, United Kingdom National Archives, 162.

ious landings, German paratroopers (*Fallschirmjäger*) presented additional threats to the defenders in a “violent Nazi air assault.”⁵⁹ By spreading their troops thin, the British had tried to “defend everything and . . . defend[ed] nothing.”⁶⁰ While at least one enemy landing failed, enough troops and equipment got on shore to grind down the defenders during the course of five brutal days until the British and Italians capitulated on 16 November.⁶¹ As the *London Gazette* described it, “the continued bombing and the incessant fighting over nearly five days had so reduced the fighting power of our forces that they were unable to continue the battle.”⁶²

A period newspaper reported that the Germans used tactics not unlike those “used in their capture of Crete” in 1941.⁶³ According to the Łódź, Poland, daily newspaper of the occupying Nazis, the German Armed Forces High Command (*Oberkommando der Wehrmacht* [OKW]) communique of 17 November 1943 claimed that despite the strong defense of the rocky island, the combined efforts of the *Luftwaffe*, *Kriegsmarine*, and *Heer* personnel secured the objective with strong support from bombers and dive bombers.⁶⁴ Based on one estimate, the Germans used at least 2,300 ground troops in the “grim battle” on Leros, which amounted to less than the British troops they faced.⁶⁵ The Germans also claimed to have captured a number of light and heavy antiaircraft guns along with other equipment, in addition to the roughly 3,000 British and 5,000 Italian troops.⁶⁶

FACTORS

There are several key factors that allowed the Germans to defeat the British in the Dodecanese in October–November 1943. These included the quality of the ground forces involved, naval improvisation, and the *Luftwaffe*’s temporary dominance in the air augmented by technological advances.

Ground

The first key factor contributing to German success was the quality of the ground units that fought in the Dodecanese. Both the British and the Germans used a patch-

⁵⁹ Associated Press, “Partisans Fall Back Before Nazi Drive,” (*Ann Arbor*) *Michigan Daily*, 17 November 1943; and Willis, “Supplement to the London Gazette of Friday 8th October 1948,” 5376.

⁶⁰ Holland, *The Aegean Mission*, 148.

⁶¹ Werner Rahn and Gerhard Schreiber, eds., *Kriegstagebuch der Seekriegsleitung 1939–1945, Teil A, Band 51, November 1943*, (Berlin: Verlag E. S. Mittler & Sohn, 1994), 12 Nov ’43–16 Nov ’43 entries, *War Diary*, pt. A, vol. 51, n.p.; “Index of War Cabinet Minutes 1943,” 175; and Holland, *The Aegean Mission*, 139.

⁶² Willis, “Supplement to the London Gazette of Friday 8th October 1948,” 5377.

⁶³ Associated Press, “Germans Capture Leros Isle,” (*Ann Arbor*) *Michigan Daily*, 18 November 1943.

⁶⁴ “Leros nach vier Tagen Kampf genommen,” *Litzmannstadter Zeitung*, Nr. 322, 18 November 1943.

⁶⁵ Associated Press, “German Forces Land on Leros,” (*Ann Arbor*) *Michigan Daily*, 13 November 1943; and Rogers, *Kos and Leros, 1943*, 15.

⁶⁶ “Huns Claim 8000 Prisoners on Leros,” *Daily News* (Perth, WA), 18 November 1943; and *German Anti-Guerrilla Operations in the Balkans (1941–1944)*, CMH Publication 104-18 (Washington, DC: Army Center of Military History, 1989), 39.

work of hastily assembled units. The British had to use what could be scraped together in the region due to Allied commitments elsewhere. Similarly, the Germans used available units from Crete and Greece, but were able to provide additional reinforcements, such as the elite *Brandenburger* commandos. Reminiscent of the 1941 Crete invasion, the German use of *Fallschirmjäger* in conjunction with conventional ground units proved successful.⁶⁷

Ultimately, the German forces outmatched their opponents even while outnumbered, and the use of elite units to augment regular troops proved decisive. Neither side lacked brave personnel or audacious schemes, but audacity and courage were not enough for the British. At Kos, 1,500 Germans faced approximately 1,000 British and another 5,000 Italians; while at Leros, 2,300 Germans faced some 3,300 British and another 5,000 Italians—clear ratios in the Allied favor.⁶⁸ As such, “the Germans were able to capture these defended islands . . . because the Allies did not have naval, air and land forces to spare to take full advantage of the situation.”⁶⁹

Generaloberst (Colonel General) Alexander Löhr, commander of *Army Group E*, oversaw the campaign in the Dodecanese. *Generalleutnant* (Lieutenant General) Friedrich-Wilhelm Müller acted as overall commander of the Dodecanese operations, contributing some of the main units sent to capture Kos and Leros from his own experienced *22d Infantry Division*.⁷⁰ Müller received the clear order from *Army Group E* to act “despite any reservations” and while this might lead to higher casualties, embracing such risk in the Dodecanese brought greater success.⁷¹ The *22d Infantry Division* was formerly the *22d Air Landing Division*, which held Crete when the Dodecanese operation commenced.⁷² It had previously fought in Holland with the *Fallschirmjäger*, so this assignment to renew cooperation amid heavy fighting was nothing new.⁷³ The division had further distinguished itself during the capture of Sevastopol in 1942.⁷⁴ Having lost some elements during fighting in North Africa, the division still held powerful forces such as the *2d Battalion, Grenadier Regiment 65*, and *3d Battalion, Grenadier Regiment 440*, as *Kampfgruppe von Saldern* and *2d Battalion, Grenadier Regiment 16*, as *Kampfgruppe Aschoff*, respectively.⁷⁵ Elements of the *11th Luftwaffe Field Division* also served in the Dodecanese, raised in 1942 from surplus *Luftwaffe* personnel.⁷⁶ In par-

⁶⁷ Antony Beevor, *Crete: The Battle and the Resistance* (Boulder, CO: Westview Press, 1994), 347–48.

⁶⁸ Rogers, *Kos and Leros, 1943*, 18.

⁶⁹ Kaufmann and Kaufmann, *Fortress Third Reich*, 266.

⁷⁰ Kurowski, *Jump into Hell: German Paratroopers in World War II* (New York: Stackpole Books, 2010), 267; and Gooderson, “Shoestring Strategy,” 14.

⁷¹ Paterson, *Hitler's Forgotten Flotillas*, 257.

⁷² Ramsey, *After the Battle*, 8.

⁷³ Kurowski, *Jump into Hell*, 267 and Schramm, *Kriegstagebuch des Oberkommandos der Wehrmacht 1. Januar 1943–31. Dezember 1943 (Wehrmachtführungsstab) III/2, Band 6*, 550.

⁷⁴ Schenk, *Kampf um die Ägäis*, 65.

⁷⁵ Nafziger, *German Order of Battle in World War II*, 20; and Rogers, *Churchill's Folly*, 48–49.

⁷⁶ Kurowski, *Jump into Hell*, 268; and Mitcham, *German Order of Battle*, 299–309.

ticular, the *2d Battalion, 22d Luftwaffe Regiment, 11th Field Division*, played a role in the Leros invasion forces.⁷⁷

In addition to the regular ground units assigned to Operation Typhoon, the attackers also included *Brandenburger* commandos who had been active since the war began in various special capacities.⁷⁸ The *1st Company* of the *Brandenburger Coastal Raider Battalion (Küstenjäger)* was a German version of the British Special Boat Service.⁷⁹ On Kos, the battalion conducted “anti-partisan operations from the sea and commando operations behind the enemy’s front, as well as against enemy vessels at sea and in port.”⁸⁰ Before the operations in the Dodecanese, the unit captured an Italian torpedo boat, *Turbine*, augmenting the meager *Kriegsmarine* resources available.⁸¹ During the Kos fighting, they acted as “experienced bunker crackers,” which helped to force the enemy’s defeat.⁸² In November 1943, the same unit, reinforced with the *15th (Parachute) Company*, of the *4th Brandenburger Regiment*, and elements of *3d Battalion, 1st Brandenburger Regiment*, helped to secure Leros against “dogged resistance.”⁸³

German forces also benefited from the *Fallschirmjäger* of the *2d Parachute Regiment, 2d Parachute Division*. Their successful parachute assault helped to overwhelm the British and Italian garrison on Leros. Despite the near-catastrophic losses on Crete in 1941, the *Luftwaffe* continued to conduct parachute drops. During the paratroop actions over Leros, approximately 90 Junkers Ju 52s delivered 500 paratroopers to the target, a feat possible only by shuffling units to meet the need.⁸⁴ The airborne assault on Leros was one of these actions where the German high command identified a tactical problem which could be solved via the insertion of parachute infantry.⁸⁵ While the *Fallschirmjäger* ranks greatly increased after Crete, their application after 1941 veered away from traditional parachute operations into the role of elite light infantry. All told, the German troops, a capable mixture of regular and elite forces, “were a tough and tenacious enemy” with superior air support over the British troops, who suffered under constant air attack, which greatly hampered their operations.⁸⁶

⁷⁷ Antonio J. Muñoz, *Göring’s Grenadiers: The Luftwaffe Field Divisions, 1942–1945*, Divisional Histories Series (New York: Axis Europa Books, 2002), 132–33; and Kurowski, *Jump into Hell*, 268.

⁷⁸ Schenk, *Kampf um die Ägäis*, 65.

⁷⁹ Eric Lefevre, *Brandenburg Division: Commandos of the Reich* (Paris, France: Histoire and Collections, 2008), 255, 311; and Ramsey, *After the Battle*, 12.

⁸⁰ Kurowski, *The Brandenburger Commandos: Germany’s Elite Warrior Spies in World War II*, Stackpole Military History Series (Mechanicsburg, PA: Stackpole Books, 2005), 301.

⁸¹ Kurowski, *The Brandenburger Commandos*, 303; and Schenk, *Kampf um die Ägäis*, 55.

⁸² Kurowski, *The Brandenburger Commandos*, 305.

⁸³ Lefevre, *Brandenburg Division*, 255, 312; and Doumanis, “Italy’s Aegean Possession,” 57.

⁸⁴ W. H. Tatum and E. J. Hoffschmidt, eds., *The Rise and Fall of the German Air Force, 1933–1945* (Old Greenwich, CT: WE, 1969), 264.

⁸⁵ Charles D. Melson, *Operation Knight’s Move: German Airborne Raid Against Tito, 25 May 1944*, Studies in Battle Series (Quantico, VA: Marine Corps University Press, 2011), 1–2.

⁸⁶ Holland, *The Aegean Mission*, 148.

Air

The *Luftwaffe*'s role in briefly securing the skies and their employment of technological advances, such as glide or glider bombs, played a significant factor in German success. *General der Flieger* (General of Aviators) Martin Fiebig's *Fliegerkorps X* (*Tenth Air Corps*) controlled the *Luftwaffe* units assigned to the Dodecanese.⁸⁷ Per the German hierarchical structure, *Fliegerkorps X* controlled a mix of aerial assets, including fighters, bombers, and reconnaissance aircraft.⁸⁸ For its role in the Aegean, *Fliegerkorps X* demonstrated "what a small but intrepid air command could achieve against an ir-resolute opponent without effective air support."⁸⁹ Once Hitler demanded a stand in the Aegean, *Fliegerkorps X* quickly reacted to the growing crisis by transferring units from other theaters of operation, such as France and Russia, and, in doing so, brought local aircraft to number 350 planes, gaining temporary air superiority.⁹⁰ Considerable numbers of Junkers Ju 88 bombers and Junkers Ju87 Stuka dive bombers were assembled, proving a "nasty menace."⁹¹ In the coming campaign, these two aircraft relentlessly struck British targets, principally the Royal Navy, which paid dearly for lack of air umbrella over their warships.⁹² As Commander-in-chief Levant Vice Admiral Sir Algernon Usborne Willis observed, the Aegean campaign was "the case again of our Navy and the German Air Force" battling for domination.⁹³

The *Luftwaffe* took a calculated risk weakening other regions in order to mass forces for Kos and Leros.⁹⁴ In hindsight, the gamble paid off due to interior lines of communication and Allied acquiescence.⁹⁵ That the Royal Navy was forced to enter the Aegean only by night and then flee before dawn speaks volumes to the *Luftwaffe* effort.⁹⁶ Without local air superiority, the *Luftwaffe*'s ability to strike at enemy shipping could not produce decisive results.⁹⁷

⁸⁷ Lawrence Paterson, *Schnellboote: A Complete Operational History* (Annapolis, MD: Naval Institute Press, 2015), 213.

⁸⁸ *Handbook on German Military Forces*, War Department Technical Document TM-E 30-451 (Baton Rouge: Louisiana State University Press, 1990), 594.

⁸⁹ Tantom and Hoffschmidt, *The Rise and Fall of the German Air Force, 1933-1945*, 264.

⁹⁰ Willis, "Supplement to the London Gazette of Friday 8th October 1948," 5372; and Tidy, "Dodecanese Disaster and the Battle of Simi—1943."

⁹¹ Andrew Browne Cunningham, Cunningham of Hyndhope (Viscount); and Michael Simpson, *The Cunningham Papers: Selections from the Private and Official Correspondence of Admiral of the Fleet Viscount Cunningham of Hyndhope*, vol. 2 (Aldershot, UK: Ashgate Publishing, Navy Records Society, 2006), 276; and Allen, *Classical Spies*, 154.

⁹² Smith and Walker, *War in the Aegean*, 278-79; and Richards and Saunders, *The Royal Air Force, 1939-1945*, 343.

⁹³ Cunningham and Simpson, *The Cunningham Papers*, 275.

⁹⁴ Schenk, *Kampf um die Ägäis*, 62.

⁹⁵ Richards and Saunders, *The Royal Air Force, 1939-1945*, 343.

⁹⁶ Molony, *The Mediterranean and the Middle East*, 541.

⁹⁷ Adolf Galland and Hubertus Hirthhold, *The Luftwaffe Fighter Force: The View from the Cockpit*, ed. David C. Isby (London: Greenhill Books, 1998), 124.

Technologically advanced ordnance also figured into the campaign as the Dornier Do 217 bombers of *Bomber Wing 100* (*Kampfgruppe 100* or *KG100*) fielded the new Henschel Hs 293 glide (guided) bombs, which scored several successes against Royal Navy vessels as an early example of a “stand-off missile.”⁹⁸ They damaged destroyers HMS *Rockwood* (L 39) on 11 November and then HMS *Dulverton* (L 63) on the 13th, which was thereafter scuttled due to extensive damage.⁹⁹ Targeting not merely destroyers, *British Yard Motor Minesweeper 72* (BYMS 72) also suffered a Henschel Hs 293 missile strike and survived the damage only to be later captured by the Germans.¹⁰⁰

In the air operations reducing Kos, for example, nearly 300 sorties were flown, most by Junkers Ju 87s.¹⁰¹ In particular, the Stuka excelled at antishipping missions that lacked enemy fighter cover or strong anti-aircraft fire. Overall, the aging Ju 87 Stuka dive bomber was no longer an effective close air support platform in the main theaters by late 1943; but over Kos and Leros, it remained a potent weapon.¹⁰² Correspondent Leonard M. Gander reflected, “It was an infuriating reflection that the Stuka dive-bomber was regarded in the RAF as obsolete. Yet here, because of a lack of fighter opposition, the enemy [used] them again as in the [1940] battle of France.”¹⁰³

Naval

The final key factor contributing to German combined arms success is the scratch naval force that supported the Dodecanese campaign. Unable to directly compete with the Royal Navy, the *Kriegsmarine* pre-September 1943 could only operate tenuously, subject to a permissive environment that only temporary aerial supremacy could provide owing to the lack of resources.¹⁰⁴ Once the *Luftwaffe* inflicted heavy losses on the Royal Navy, the *Kriegsmarine* acted boldly. Yet, without the *Luftwaffe* support, the seaborne invasions could not have succeeded.¹⁰⁵

The Italian surrender gave the *Kriegsmarine* an unexpected opportunity to bolster its fleet and its previously minor role.¹⁰⁶ Months earlier, the German version of the British Admiralty, the *Seekriegsleitung* (Naval Warfare Command), lamented the need for the strengthening and up-arming of the existing Italian naval forces, along

⁹⁸ Ian V. Hogg, *German Secret Weapons of the Second World War: The Missiles, Rockets, Weapons, and New Technology of the Third Reich* (New York: Fall River Press, 2008), 72.

⁹⁹ Koburger, *Wine-dark, Blood Red Sea*, 58; Timothy Saxon, “Kehl: The German Use of Guided Weapons Against Naval Targets, 1943–44,” *Defence Studies* 3, no. 1 (Spring 2003): 1–16, 8 <https://doi.org/10.1080/14702430308405049>; and Eisenbach, *Fronteinsätze eines Stuka-Fliegers*, 69.

¹⁰⁰ Koburger, *Wine-dark, Blood Red Sea*, 86; and “Capture of British Yard Minesweeper BYMS-72, November 1943.”

¹⁰¹ Tantom and Hoffschmidt, *The Rise and Fall of the German Air Force, 1933–1945*, 264.

¹⁰² Koburger, *Wine-dark, Blood Red Sea*, 25.

¹⁰³ Peakman, *Hitler’s Island War*, 113.

¹⁰⁴ *Fuehrer Conferences on Matters Dealing with the German Navy, 1943*, 150–51.

¹⁰⁵ Boog, Krebs, and Vogel, *Germany and the Second World War*, vol. 7, 475.

¹⁰⁶ Kesselring, *The Memoirs of Field-Marshal Kesselring*, 175; and Franz Kurowski, *Battleground Italy, 1943–1945: The German Armed Forces in the Battle for the “Boot”* (Winnipeg, Manitoba, CA: J. J. Feodorowicz Publishing, 2003), 238.

with augmentation in the amount of escort and similar vessels, as a way to keep the Allies from roaming freely in the Mediterranean.¹⁰⁷ The now-captured Italian vessels either already afloat or under construction gave the *Kriegsmarine* the exact resource they badly needed, the *Beuteschiffe* (looted or captured ships).¹⁰⁸ At the time of Italian surrender, at least 40 torpedo boats or corvette-size ships were under construction in Italian yards.¹⁰⁹ In one particular instance, the Italian captain walked off the destroyer *Turbine*, saluted and handed it over directly to their German equivalent as if at a change of command ceremony.¹¹⁰ While these ships did not represent a real challenge to the Royal Navy throughout the Mediterranean due to lack of firepower and especially radar, they nevertheless bolstered *Kriegsmarine* end strength, serving as escorts and other vital roles, especially in the Dodecanese operations.¹¹¹

While the *Kriegsmarine* could not be augmented quite as easily as the *Luftwaffe*, an ongoing transfer of naval assets from western Italian waters provided some help for the existing forces, largely a hodgepodge of ex-Italian and locally acquired vessels. Transport assets arrived via European rivers and the Black Sea.¹¹² One of the unsung craft in the *Kriegsmarine* inventory was the MFP, which acted as rough equivalents to the small but useful landing craft used by the Allies.¹¹³ Developed for the aborted Operation Sealion, the planned German invasion of England in 1940, these adaptable and “agile” craft could carry several medium tanks, troops, and vehicles, and served nearly everywhere the *Wehrmacht* operated.¹¹⁴ In the Mediterranean, MFPs helped to evacuate troops from Sicily via the Strait of Messina, among myriad other uses, proving their value.¹¹⁵ During the Dodecanese campaign, MFPs carried troops ashore during the Kos and Leros amphibious landings, as well as operating in doomed convoy actions, such as the aforementioned *Olympos*, and otherwise in support functions.¹¹⁶

For the operations in the Dodecanese, the *Kriegsmarine*'s Admiral Ägäis (Commanding Admiral Aegean) Vice Admiral Werner Lange utilized the 9th *Torpedo Boat Flotilla* of ex-Italian torpedo boats, 21st *Submarine Chaser Flotilla* (*Unterseebootsjäger*), a formation of at least 17 different vessels ranging from yachts to ex-British mine-sweepers, along with the 12th *Motor-Minesweeper Flotilla* (*Räumboote-Flotille*) of small

¹⁰⁷ Michael Salewski, *Die deutsche Seekriegsleitung 1935–1945*, Band III, *Denkschriften und Lagebetrachtungen 1938–1944* (Frankfurt am Main: Bernard und Graefe Verlag für Wehrwesen, 1973), 356.

¹⁰⁸ Paterson, *Hitler's Forgotten Flotillas*, 243; David Brown, *Warship Losses of World War Two*, rev. ed. (Annapolis, MD: Naval Institute Press, 1990), 94–97; and Kurowski, *Battleground Italy, 1943–1945*, 242–43.

¹⁰⁹ O'Hara, *Struggle for the Middle Sea*, 219.

¹¹⁰ Schenk, *Kampf um die Ägäis*, 54–56; and Erich Gröner, Dieter Jung, and Martin Maass, *German Warships 1815–1945*, vol. 1, *Major Surface Vessels* (London: Conway Maritime, 1990), 222.

¹¹¹ James J. Sadkovich, *The Italian Navy in World War II* (Westport, CT: Greenwood Press, 1994), 90.

¹¹² Koburger, *Wine-dark, Blood Red Sea*, 50.

¹¹³ O'Hara, Dickson, and Worth, *On Seas Contested*, 50.

¹¹⁴ Boog, Krebs, and Vogel, *Germany and the Second World War*, vol. 7, 461–62; Samuel Eliot Morison, *Sicily—Salerno—Anzio, January 1943–June 1944*, *History of United States Naval Operations in World War II*, vol. 9 (Boston: Little, Brown, 1984), 214; and O'Hara, Dickson, and Worth, *On Seas Contested*, 50.

¹¹⁵ Morison, *Sicily—Salerno—Anzio*, 212.

¹¹⁶ Paterson, *Hitler's Forgotten Flotillas*, 254, 259–61; and Rogers, *Kos and Leros, 1943*, 28–56.

lightly armed wooden-hulled minesweepers, the 15th Landing Flotilla (*Landungsflotille*) with various landing craft and a mélange of various other craft pressed into service as escort, patrol, and mine warfare craft.¹¹⁷ Examples of the ships pressed into *Kriegsmarine* service include trawlers, yachts, minelayers, an icebreaker, and an ex-British minesweeper.¹¹⁸

With this fleet scrounged from every possible source, the *Kriegsmarine* secured its objectives against the Royal Navy's Levant fleet.¹¹⁹ As an example of the eclectic force composition, an observer estimated the Kos landing force at "seven transports, seven landing craft, three destroyers and numerous caiques (fishing craft) and other small craft," all escorted by the disparate vessels of the 21st Submarine Chaser Flotilla.¹²⁰ The subchasers, in particular, were "any boat allocated to such duties" as opposed to any sort of uniformity.¹²¹ While an uncommon occurrence of effective antisubmarine warfare, one improvised German subchaser, *UJ2101*, a former Greek minesweeper, managed to ram and sink the Greek submarine *Katsonis* (Y 1) on 14 September during the early phases of the campaign.¹²²

Among the naval assets assigned to Operation Typhoon, the German *Schnellboot* (or E-boats or fast boats) *S-54* and *S-55* played a role and *S-55* supported the landings.¹²³ Additionally, a lone U-boat, *U-565*, acted in support of the Leros landings.¹²⁴

Some so-called "Infantry Boats" (*I-Boot*), originally built for use in Operation Sealion, and specialized engineer craft also played a role.¹²⁵ Again, the Germans benefited from interior lines, as their ability to ship small craft via the waterways of Europe to the threatened area reduced the time needed and the risks owing to enemy air attack. The *Luftwaffe* and *Kriegsmarine* also used air and naval mines to their advantage, which damaged or sank destroyers HMS *Hurworth* (L 28), the Greek *Adrias*

¹¹⁷ Jürgen Rohwer and Gerhard Hümmelchen, "Deutsche Seestreitkräfte in der Ägäis," in *Chronik des Seekrieges 1939-1945* (Württemberg, Germany: Bibliothek für Zeitgeschichte, 1956-64); Koburger, *Wine-dark, Blood Red Sea*, 50-59; Jürgen Rohwer and Gerhard Hümmelchen, "Torpedoboote in Mittelmeer," in *Chronik des Seekrieges 1939-1945*; Gordon Williamson, *Kriegsmarine Coastal Forces* (Oxford, UK: Osprey Publishing, 2009), 17-18; Paterson, *Hitler's Forgotten Flotillas*, 6-8; Rohwer and Hümmelchen, "Landungsverbände 1941-1945; Mittelmeer"; and O'Hara, *The German Fleet at War, 1939-1945*, 167.

¹¹⁸ O'Hara, *Struggle for the Middle Sea*, 227-28.

¹¹⁹ O'Hara, *The German Fleet at War, 1939-1945*, 167.

¹²⁰ Tidy, "Dodecanese Disaster and the Battle of Simi-1943"; *War Diary*, pt. A, vol. 50, n.p.; and O'Hara, *Struggle for the Middle Sea*, 227-28.

¹²¹ Williamson, *Kriegsmarine Coastal Forces*, 18.

¹²² Rogers, *Churchill's Folly*, 42; and Paterson, *Hitler's Forgotten Flotillas*, 247.

¹²³ *War Diary*, pt. A, vol. 51, n.p.; and Paterson, *Schnellboote*, 213.

¹²⁴ U.S. Navy, *War Diary of Captain U-Boats, Italy, 1 July-31 August 1943 & 16 October-31 December 1943*, Office of the Chief of Naval Operations, 770; and Werner Rahn and Gerhard Schreiber, eds., *Kriegstagebuch der Seekriegsleitung 1939-1945*, teil A, band 51, *November 1943*, (Berlin: Verlag E. S. Mittler & Sohn, 1994), 12 Nov '43 entry.

¹²⁵ Ramsey, *After the Battle*, 17; Holland, *The Aegean Mission*, 109; and Schenk, *Kampf um die Ägäis*, 80-81.

(L 67), and HMS *Eclipse* (H 08), and probably two Allied submarines.¹²⁶ The *Eclipse*, in particular, was carrying troops when sunk, losing 140 of 200 personnel on board as a result.¹²⁷

POST-1943 ACTION

While the 1943 Dodecanese campaign did little to impact the overall result in World War II, it cramped British ambitions in the Aegean, “the Allied world was shocked” and helped to secure the resource-rich, yet tenuous German flank in the Balkans.¹²⁸ German success, however, meant that German units were required to hold the area, denying them to other fronts where they might have been of more use than on occupation duty in the Aegean.¹²⁹ As it was, German post-1943 efforts to hold the “Aegean Islands acted as a partial shield against a major Allied invasion,” and gave some comfort to the OKW that the flank opposite Turkey still held even as retreat ruled the day everywhere else.¹³⁰

The reaction in the Allied camp was decidedly dour. The fall of Leros was described as a defeat that put “the cornerstone back into the Nazis’ southeastern European defense system” and the *Daily Iowan* marveled at how German forces dominated the skies locally even while the Allies controlled the overall skies of the Mediterranean.¹³¹ Postwar, a 1948 supplement of the *London Gazette* stated that the defeat could be attributed to several things, most notably the British garrisons that should have fought better, the “complete air superiority” enjoyed by the *Luftwaffe*, the few destroyers available for operations, and the short distances German forces sailed once they secured Kos.¹³² As the official RAF history explained, “the fact was that the Allies were trying to accomplish too much. Their reach exceeded their grasp . . . with the means made available.”¹³³

Churchill later posited in *Closing the Circle* that “we were condemned to try our best with insufficient forces to occupy and hold islands of invaluable strategic and political importance.”¹³⁴ The Allied failure to match limited operational resources with Churchill’s strategic ambition ultimately doomed Operation Accolade, a defeat not unlike those of 1940–41.¹³⁵

¹²⁶ Koberger, *Wine-dark, Blood Red Sea*, 58, 117; Barbara Brooks Tomblin, *With Utmost Spirit: Allied Naval Operations in the Mediterranean, 1942–1945* (Lexington: University Press of Kentucky, 2004), 303; and Eisenbach, *Fronteinsätze eines Stuka-Fliegers*, 69.

¹²⁷ Brown, *Warship Losses of World War Two*, 99.

¹²⁸ Allen, *Classical Spies*, 159.

¹²⁹ Ross, “The Aegean Campaign,” 162.

¹³⁰ Kaufmann and Kaufmann, *Fortress Third Reich*, 267.

¹³¹ “Capture of Leros Imperils British,” *Daily Iowan* (Iowa City), 18 November 1943.

¹³² Willis, “Supplement to the London Gazette of Friday 8th October 1948,” 5375.

¹³³ Richards and Saunders, *The Royal Air Force, 1939–1945*, 344.

¹³⁴ Churchill, *Closing the Ring*, vol. 5, 182.

¹³⁵ Gooderson, “Shoestring Strategy,” 2.

CONCLUSION

In the wake of the Italian surrender, the Allies jockeyed to control the spaces held by the Italian forces or at least limit the German ability to do so. The *Wehrmacht's* combined operations in response to the Aegean challenge “was systematic, vigorous and effective” and demonstrated an ability that many Allied planners imagined absent by September 1943.¹³⁶ Faced with exigent circumstances, the *Wehrmacht* responded quickly and in this instance decisively, using adaptation, improvisation, and interservice cooperation with considerable benefit from their interior lines. As an example of joint warfare, the clash that followed “demonstrated the interrelationship of air, naval, and amphibious forces in narrow waters.”¹³⁷ Despite the paucity of German naval assets in the Mediterranean, the *Kriegsmarine* used a “marvelously assorted fleet” to conduct two successful opposed amphibious landings in the Dodecanese when the odds of success stood strongly against them.¹³⁸ In retrospect, the OKW’s war diary viewed the 1943 Dodecanese operations as proof “that England currently has no decisive interest in support bases in the Aegean.”¹³⁹

As the official RAF history aptly noted, the cooperative spirit that prevailed in the Dodecanese among their adversaries who “showed that the link between the *Luftwaffe* above and the troops below was strong and effective, the first instantly responding to all demands made on them by the second.”¹⁴⁰ The Dodecanese campaign inflicted significant warship losses on the Allies, sinking “six destroyers, two submarines . . . damaged one cruiser beyond repair, and seriously damaged four cruisers, four destroyers,” and damaged or sank other vessels as well, in addition to the land and air losses suffered in the autumn misadventure.¹⁴¹ A Royal Navy veteran called it “prolonged torture, with no hope of success,” while a correspondent reported bitterly on 19 November 1943, “the loss of Leros has taught us a bitter lesson. It is a disaster as big as Dieppe [France].”¹⁴²

In contrast to some claims, the campaign was fairly closely run where the Germans profited from “a concerted [effort] with set objectives and close cooperation, in conjunction with easier supply routes and closer bases to the operational zone, and thus it proved superior to the somewhat vague and dispersed Allied effort.”¹⁴³ The British found themselves “soundly defeated by the German navy’s unexpected ability to wage amphibious warfare across disputed seas.”¹⁴⁴ Yet, this victory represented an

¹³⁶ Tantom and Hoffschmidt, *The Rise and Fall of the German Air Force*, 263.

¹³⁷ O’Hara, *Struggle for the Middle Sea*, 231.

¹³⁸ O’Hara, Dickson, and Worth, *On Seas Contested*, 50; and Koburger, *Wine-dark, Blood Red Sea*, 23.

¹³⁹ Schramm, *Kriegstagebuch des Oberkommandos der Wehrmacht 1943 (Wehrmachtführungsstab) III/2 Band 6*, 648.

¹⁴⁰ Richards and Saunders, *The Royal Air Force, 1939–1945*, 344.

¹⁴¹ O’Hara, *The German Fleet at War, 1939–1945*, 173.

¹⁴² Tomblin, *With Utmost Spirit*, 303; and Holland, *The Aegean Mission*, 93.

¹⁴³ Smith and Walker, *War in the Aegean*, 45.

¹⁴⁴ O’Hara, *The German Fleet at War, 1939–1945*, 167.

“expensive proposition” for Berlin that consumed resources and troops in a largely minor effort.¹⁴⁵ Last, as the RAF history succinctly noted,

*this rash experiment [Operation Accolade] had cost the lives of some hundreds of troops and airmen, a large quantity of valuable stores and equipment, a number of naval vessels and 115 aircraft. The German losses were as heavy, if not heavier, but they had regained lost ground and by so doing received much-needed encouragement. The operation, ill-judged from the beginning, had been the result of over-confidence, an unconscious flouting of a cardinal principle of modern warfare. Troops and ships in isolated positions without air support cannot long survive if their enemy, moving on interior lines, can bring his air power to bear at the crucial point. Nevertheless, when all is said, the Aegean episode was no more than a setback, humiliating indeed, but with no effect on the final issue.*¹⁴⁶

¹⁴⁵ Koburger, *Wine-dark, Blood Red Sea*, 117.

¹⁴⁶ Richards and Saunders, *The Royal Air Force, 1939–1945*, 344.

CHAPTER THIRTEEN

Missing the Mark

Lessons in Naval Gunfire Support at Tarawa

James P. McGrath III

THE FIRST OPPOSED AMPHIBIOUS ASSAULT

The amphibious doctrine developed by the U.S. Marine Corps between the World Wars, first articulated in the *Tentative Manual for Landing Operations* written in 1934, provided a blueprint for the island-hopping campaign against Japan in the Pacific.¹ Unfortunately, the many constraints placed on the U.S. Navy and Marine Corps during the interwar years prevented fully equipping and exercising this doctrine before war began in the Pacific. Despite this lack of validation, the Navy's Pacific War strategy depended on successful application of these amphibious protocols to seize heavily defended Central Pacific islands. The invasion of Tarawa in 1943 provided the first test to that doctrine and the strategy on which it depended (figure 39).

On 20 November 1943, U.S. Marines assailed the tiny island of Betio, one of a score of islands on the Tarawa Atoll in the Gilbert Islands, as the first step in the Central Pacific campaign. It was the first test of amphibious protocols that had been worked out during the previous two decades in anticipation of the need to place

¹ Allan R. Millett, "Assault from the Sea: The Development of Amphibious Warfare Between the Wars—the American, British and Japanese Experiences," in *Military Innovation in the Interwar Period*, ed. Williamson R. Murray and Allan R. Millett (Cambridge, UK: Cambridge University Press, 1996), 50–77, <https://doi.org/10.1017/CBO9780511601019.003>.

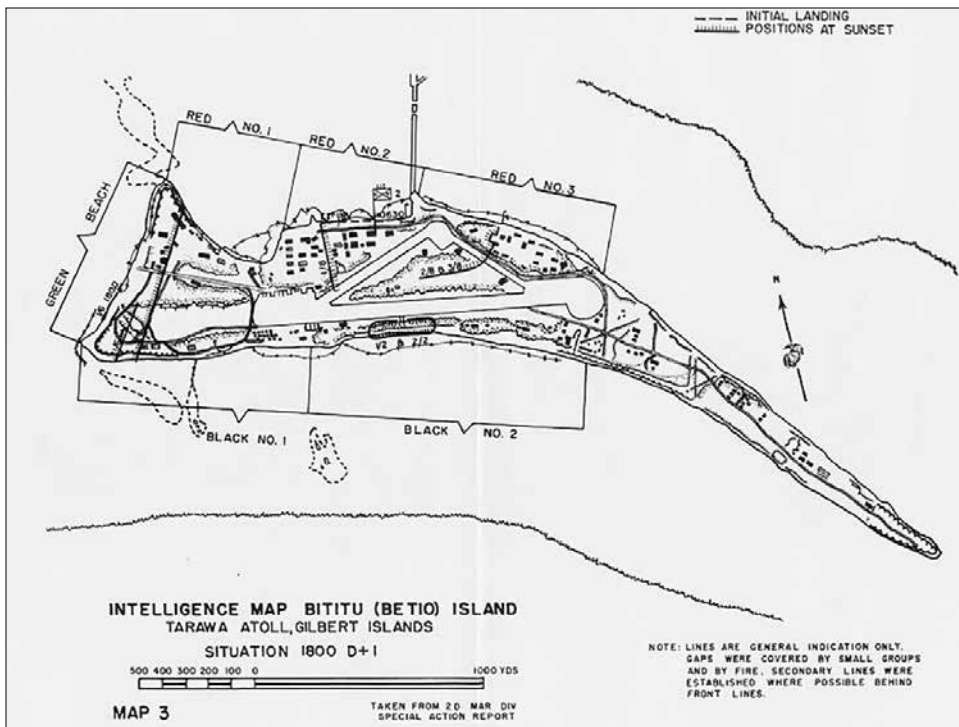


FIGURE 39
Operation map of Tarawa landing
Official U.S. Marine Corps map

troops onto a hostile beach against determined resistance, precisely the tactical problem presented at Tarawa. In the hours before the assault waves of Marines moved forward, the battleships, cruisers, and destroyers of Rear Admiral Harry W. Hill's gunfire support force opened fire on the island in the greatest concentration of naval gunfire in the war to date.²

The naval gunfire, which sandwiched an aerial bombing run by American carrier aircraft, was indeed impressive. Journalist Robert E. Sherwood, who witnessed the event, later wrote, "Surely, we all thought, no mortal man could live through such destroying power."³ And yet, when the Marines headed toward the beach, the Japanese response demonstrated dramatically how ineffective the preassault naval gunfire had been in suppressing Japanese defenses.

Although ultimately successful, the assault on Tarawa exposed many flaws in the doctrine of opposed amphibious assault. Faults in planning and execution of naval

² Col Joseph H. Alexander, *Across the Reef: The Marine Assault of Tarawa* (Washington, DC: History and Museums Division, Headquarters Marine Corps, 1993), 6-7.

³ Robert Sherrod, *Tarawa: The Story of the Battle* (New York: Duell, Sloan and Pearce, 1944), 62.

gunfire support were among the most critical. The ability of the Navy and Marine Corps to critically assess lessons from Tarawa, and then apply systemic and operational changes ahead of the invasion of the next objective—the Marshall Islands—was essential to the viability of the Navy’s Pacific War strategy. Were the protocols for amphibious assault in error or were there flaws in execution? Was opposed amphibious assault a viable doctrine on which to base the American strategy in the Central Pacific? To find the answers, it is necessary to return to the roots of amphibious doctrine.

THE NEED FOR AMPHIBIOUS DOCTRINE

With the withdrawal of VIII Corps from Gallipoli on 9 January 1916, the British amphibious expedition there ended in failure.⁴ The Allied disaster at Gallipoli loomed large in interwar amphibious doctrine development. Advocates, however, did not see Gallipoli as the death knell of the opposed amphibious landing; instead, they looked to develop ways to overcome the shortfalls of the 1915 operations with better tactics, planning, and equipment. While British interwar planners saw Gallipoli as proof of the insanity of amphibious assault against defended beaches, the U.S. Marine Corps saw lessons to be addressed. The Marines studied the campaign’s successes and failures along with other amphibious operations of World War I and developed plans to wrest control of heavily defended island bases.

Seeking a mission to maintain its relevance in an era of shrinking resources, the Marine Corps focused on developing the doctrine to defend, and later capture by direct assault, the overseas bases required for the execution of War Plan Orange, the American plan to defeat Japan.⁵ Commandant Major General John A. Lejeune tasked Major Earl H. Ellis to study the problem, and the result was Operations Plan 712, *Advanced Base Operations in Micronesia*.⁶ The Marines continued to develop amphibious doctrine, and the Navy provided some limited support by including amphibious operations in fleet problems. The Army participated in these fleet problems as well, eventually identifying three divisions to maintain an amphibious capability.⁷ The capstone of Marine Corps amphibious doctrine came in 1934 with the *Tentative Manual for Landing Operations*, hereafter referred to as the *Tentative Manual*.

Approved later in 1934 as the *Manual for Naval Overseas Operations* and incorporated into the Navy’s *Landing Operations Doctrine*, Fleet Training Publication 167 (FTP 167), in 1938 virtually unchanged from its original form, the *Tentative Manual* drove

⁴ Robin Prior, *Gallipoli: The End of the Myth* (New Haven, CT: Yale University Press, 2009), 230–35.

⁵ Edward S. Miller, *War Plan Orange: The U.S. Strategy to Defeat Japan, 1897–1945* (Annapolis, MD: Naval Institute Press, 2007).

⁶ Earl H. Ellis, *Advanced Base Operations in Micronesia*, Operations Plan 712 (Washington, DC: Intelligence Section, Division of Operations and Training, U.S. Marine Corps, 1921), 29; and Millett, “Assault from the Sea,” 58–59, 71–72.

⁷ Millett, “Assault from the Sea,” 74–75.

planning for the initial Marine Corps amphibious operations in the Pacific.⁸ It considered a wide range of activities involved in amphibious operations: landings, ship-to-shore movement, shore combat, employment of naval supporting groups, field artillery in landing operations, communications in the attack, combat intelligence, chemical agents and smoke, engineers, tanks, and logistics.⁹ Per the *Tentative Manual*, the commander of the naval attack forces was responsible for four major tasks: the actual operation of landing on the beaches, employment of naval air forces in support of the landing, support of the landing by ships' gunfire, and maintenance of signal communications between ships and shore.¹⁰ While each of these responsibilities is important, a key to appreciating the problems encountered at Tarawa was the naval attack force's role in supporting the landing by ships' gunfire.

While the Marines worked diligently on amphibious doctrine, limited funding constrained the development of specialized equipment required to execute that doctrine. Construction of troop transports was not authorized until the late 1930s as the Navy rationalized that they could be procured quickly in the event of war. The Marines turned to private industry to adapt landing craft (e.g., Andrew Higgins's boat) and amphibious tractors (e.g., Donald Roebling's "Alligator"); so, when mass production began, the appropriate craft were ready to be built. The Americans also borrowed Japanese and British innovations and mass produced them, eventually building a massive amphibious fleet to execute the doctrine they developed in the 1930s.¹¹

Not only did the Marines study and develop tactics to overcome the shortcomings of opposed amphibious assault, they also rehearsed those tactics in annual fleet problems to validate and refine their solutions.¹² The primary obstacle in all opposed amphibious operations is getting troops ashore. Before establishing a beachhead on a hostile shore, the landing force depends on naval gunfire and aerial bombardment to suppress enemy defenses and defeat enemy fortifications. The *Tentative Manual* laid out detailed procedures for the use of naval gunfire to prepare the beaches for landing.¹³

THE DOCTRINE OF GUNFIRE SUPPORT

The need for ships' gunfire to support amphibious assaults stems from the lack of traditional artillery support available during landing operations.¹⁴ The *Tentative Manual*

⁸ David J. Ullbrich, *Preparing for Victory: Thomas Holcomb and the Making of the Modern Marine Corps, 1936-1943* (Annapolis, MD: Naval Institute Press, 2013), 53.

⁹ "Tentative Manual for Landing Operations, 1934," History Amphibious File, box 2, folder 39, Historical Resources Branch, Marine Corps History Division, Quantico, VA.

¹⁰ "Tentative Manual for Landing Operations, 1934," 12.

¹¹ Millett, "Assault from the Sea," 82-84.

¹² Millett, "Assault from the Sea," 74-75.

¹³ Gunther E. Rothenberg, "From Gallipoli to Guadalcanal," in *Assault from the Sea: Essays on the History of Amphibious Warfare*, ed., LtCol Merrill L. Bartlett (Annapolis, MD: Naval Institute Press, 2014), 180.

¹⁴ Rothenberg, "From Gallipoli to Guadalcanal"; and "Tentative Manual for Landing Operations, 1934," 12.

assigned four missions to the fires support group: beach fire, support fire, indirect fire, and counterbattery fire.¹⁵ Naval guns and ammunition, however, are not designed for shore bombardment. Marine planners accounted for the differences between naval guns and shore-based artillery by developing detailed formulas for comparison of naval gunfire of various calibers to the standard 75mm artillery used by the Marines.¹⁶ Positioning naval gunfire on the flanks accounted for the range errors inherent to the flat trajectory of naval gunfire. They also considered the proper ordnance for shore bombardment. Shells designed for naval combat penetrated more deeply, which was useful for destroying hardened defenses, but not for suppressing enemy movement. This meant that ships assigned to the fire support mission required ammunition loads optimized for shore bombardment instead of ship killing.¹⁷

The complexity of gunfire support required planning in advance of the arrival of the invasion force as well as coordinating ships' fire with the movement of attacking troops, field artillery fire once landed, and aviation. Another essential planning element was the anticipated employment of naval gunfire from the commencement of the initial bombardment through the seizure of the final objective.¹⁸ Prewar doctrine anticipated positioning gunfire support ships initially in three gunfire support areas: on the flanks of the line of departure, straddling the inshore area and offshore area; the close-in gunfire support area, just outside the inshore area and inside the range of shore-based artillery; and the distant gunfire support area, outside the shore-based light artillery range (figure 40). The transport area was outside of shore-based artillery range and behind the forwardmost gunfire support area.¹⁹ As the landing progressed and the threat from coastal defenses diminished, ships would shift closer to the line of contact to provide more effective direct supporting fires.²⁰

According to prewar protocols, amphibious landing operations were to consist of two distinct phases and fire support priorities differed for each phase. The first phase comprised of "action up to and including the establishment of troops on each landing beach, during which almost complete dependence is placed upon the support ships' gunfire."²¹ This phase consisted primarily of beach fire, during which "the entire beach must be literally sprayed with high explosive shells."²² The goal of this preassault gunfire was to destroy enemy beach defenses and prevent defense forces from employing weapons in opposition to the landing force during the ship-to-shore movement and beach combat. The second phase comprised the land actions from the beaches inland.

¹⁵ "Tentative Manual for Landing Operations, 1934," 2.

¹⁶ "Tentative Manual for Landing Operations, 1934," 16–21.

¹⁷ "Tentative Manual for Landing Operations, 1934," 8.

¹⁸ "Tentative Manual for Landing Operations, 1934," 27.

¹⁹ "Tentative Manual for Landing Operations, 1934," 2–4.

²⁰ "Tentative Manual for Landing Operations, 1934," 10–15.

²¹ "Tentative Manual for Landing Operations, 1934," 6.

²² "Tentative Manual for Landing Operations, 1934," 7.

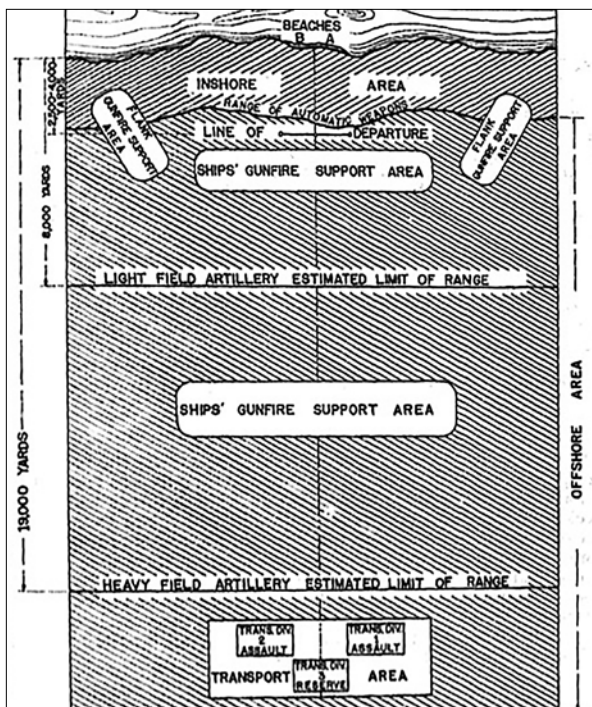


FIGURE 40
 Naval gunfire support areas.
Tentative Manual for Landing Operations, 1934, History Amphibious File, box 2, folder 39, Historical Resources Branch, Marine Corps History Division, Quantico, VA

As land artillery arrived ashore and progressively took over fire support, dependence on ships' gunfire would gradually diminish.²³

Planners assumed that the first phase of landing operations was by far the most critical. Fire control plans in this phase involved the intensive employment of ships' gunfire. Goals of this phase included clearing the beaches of hostile infantry, weapons, and obstructions that could hamper the landing, neutralization of enemy artillery fire on assault boats and beaches, and providing for immediate action against the movement of enemy reserves.²⁴ The effectiveness of gunfire preparation decreased, however, in direct proportion to the time required for the assault troops to gain their positions after the fire lifts. It was therefore essential to ensure close coordination between ships' gunfire and the landing of the first assault waves so that the ships maintain beach fire until the last possible moment.²⁵

During the second phase, the amount of ships' gunfire required depended on the amount and location of land-based artillery and the necessity of preserving naval ammunition due to the ships' limited magazine capacity. During this phase, naval gunfire

²³ "Tentative Manual for Landing Operations, 1934," 7.

²⁴ "Tentative Manual for Landing Operations, 1934," 7.

²⁵ "Tentative Manual for Landing Operations, 1934," 9.

shifted to support and direct bombardments. Crucial coordination and communication were accomplished by specially trained gunfire liaison officers deployed with the ground troops who understand both ground support gunfire requirements and naval gunfire techniques.²⁶

Another critical element of successful amphibious operations was the element of surprise. The *Tentative Manual* clearly stated that, “surprise, both tactical and strategic [sic], will be especially conducive to the success of a landing operation.”²⁷ Of course, effective preinvasion bombardment removed tactical surprise, so a balance between surprise and firepower had to be struck. The *Tentative Manual* was unclear on the relative precedence of surprise and gunfire support, and at Tarawa, the different opinions of Navy and Marine leaders on this point would have dire effects on the Marine landing teams.

PLANNING FOR THE ASSAULT OF TARAWA

By the fall of 1943, Admiral Chester W. Nimitz, commander in chief of the U.S. Pacific Fleet, was finally prepared to commence a deliberate offensive through the Central Pacific. The Central Pacific offensive, formally laid out in the Combined Chiefs of Staffs’ *Strategic Plan for the Defeat of Japan* (CCS 220) and approved at the Washington (Trident) Conference in May 1943, was one of the prongs aimed at opening a sea line of communication from Hawaii to the Celebes Sea.²⁸ The first step in the Central Pacific campaign was to capture key bases in the “Gilberts preparatory to a further advance into the MARSHALLS. NAURU, TARAWA, and MAKIN are to be captured by simultaneous assault followed by the rapid development of airfields in the forward (TARAWA-MAKIN) area and staging fields along the GILBERT line.”²⁹

The 20–23 November 1943 invasion of Tarawa was the first full-scale execution of Marine amphibious doctrine against a defended beachhead and as the first step in the Central Pacific Campaign, the Marines had to get it right. Major General Julian C. Smith, commanding general of the 2d Marine Division, assigned the task of planning the assault to his operations officer, Lieutenant Colonel David M. Shoup. As the eventual assault commander, Shoup had hundreds of details to consider in planning, but he also had the doctrine first laid out in the *Tentative Manual* demonstrating how to conduct such an assault.³⁰ Concerns about unfavorable tides, the treacherous coral reef guarding the landing beaches, and the shallow water in the Tarawa lagoon were

²⁶ “Tentative Manual for Landing Operations, 1934,” 7.

²⁷ “Tentative Manual for Landing Operations, 1934,” 7.

²⁸ Memorandum by the U.S. Joint Chiefs of Staff, “Strategic Plan for the Defeat of Japan,” Combined Chiefs of Staff 220, 14 May 1943, as quoted in Louis Morton, *U.S. Army in World War II: The War in the Pacific—Strategy and Command: The First Two Years* (Washington, DC: Army Center of Military History, 2000).

²⁹ *Quadrant Conference, August 1943: Papers and Minutes of Meetings*, World War II Inter-Allied Conferences (Washington, DC: Joint History Office, 2003).

³⁰ Alexander, *Across the Reef*, 1.

all addressed with varying degrees of success. But one element of the assault that proved most contentious was the preinvasion bombardment.

Aerial reconnaissance and periscope observations by the submarine USS *Nautilus* (SS 168) showed that the Japanese had erected significant beach defenses on Betio, the main American target. These included hardened concrete bunkers and 8-inch naval guns, all of which needed to be neutralized in advance of the Marines' beach landing.³¹ The Marines' doctrine asserted that defeating these defenses was best accomplished by intense preassault naval gunfire bombardment. The initial mission of the gunfire support group at Tarawa, therefore, entailed targeting and destroying the coastal defense and heavy anti-aircraft guns on Betio ahead of the assault units.³² General Smith intended to sacrifice tactical surprise for more intense and longer duration naval bombardment to neutralize these beach defenses.³³

Admiral Nimitz, however, was concerned that the Imperial Japanese Navy would respond to the Tarawa invasion by sending a large naval force to attack the vulnerable American invasion fleet. Reinforcing this concern was a mid-October sortie by the Japanese fleet based in Truk, Micronesia. Nimitz's staff assessed that this sortie "may be interpreted to mean that the Japanese may be expected . . . to station their surface forces now at Truk in positions to counter our moves in the Gilberts or Marshalls."³⁴ This concern made Nimitz unwilling to sacrifice strategic surprise by committing to a prolonged naval bombardment.³⁵ Despite the Marines' argument that the Japanese could not muster a surface force capable of threatening the American assault force, fear of Japanese fleet response drove Vice Admiral Raymond A. Spruance, commander of the Central Pacific Force, to restrict the preinvasion bombardment to the three hours preceding the assault.³⁶

After rehearsal, concern about the naval bombardment continued. While Betio was scheduled to receive the greatest concentration of naval gunfire of the war to date, the Marines worried that it would prove insufficient to destroy the hardened Japanese defenses. Navy leaders were optimistic, even boasting that "we do not intend to neutralize [the island], we do not intend to destroy it, we intend to obliterate it."³⁷ Their bravado proved sanguine.

JAPANESE DEFENSIVE PLAN

The Japanese commander on Betio, Rear Admiral Tomanari Saichiro, had construct-

³¹ Merritt A. Edson, "Estimate of the Situation—Gilberts (5 October 1943)," WWII Gilberts to Tarawa, box 2, Historical Resources Branch, Marine Corps History Division, Quantico, VA, 4–6.

³² Edson, "Estimate of the Situation—Gilberts (5 October 1943)," 12.

³³ Edson, "Estimate of the Situation—Gilberts (5 October 1943)," 21–22.

³⁴ CINCPAC Staff, *Command Summary of Fleet Admiral Chester W. Nimitz, USN, 7 December 1941–31 August 1945, Nimitz "Graybook," 26 October 1943*, vol. 7 (Newport, RI: U.S. Naval War College, 2013), 1677, hereafter Nimitz "Graybook."

³⁵ Alexander, *Across the Reef*, 1.

³⁶ Edson, "Estimate of the Situation—Gilberts (5 October 1943)," 9; and Alexander, *Across the Reef*, 4.

³⁷ Alexander, *Across the Reef*, 6–7.

ed a sophisticated defensive structure on the island with the primary goal being to make Betio so formidable that an American assault would be stalled at the water's edge. This would allow time for the other elements of Japan's overall defensive plan, *Yogaki* (waylaying attack), to move to the Gilberts and destroy the landing force. *Yogaki* called for a counterattack on the American assault force by land-based bombers, submarines, and the Imperial Japanese Navy's main battle fleet. This was exactly Nimitz's concern, so he directed Spruance to "get the hell in and get the hell out."³⁸

Rear Admiral Meichi Shibasaki replaced Saichiro in August 1943. More a fighter than the engineer Saichiro, Shibasaki boasted that "a million Americans couldn't take Tarawa in 100 years." While that appeared optimistic, he had reason to be. He commanded the most heavily fortified atoll in the Pacific.³⁹ It was clear that the Japanese would fight for control of the island, and the Marines of 2d Marine Division accurately predicted the ferocity of that defense.⁴⁰

PREASSAULT BOMBARDMENT

The Tarawa assault force, designated the Southern Attack Force or Task Force 53, was commanded by Rear Admiral Hill. The gunfire support group at Tarawa consisted of 3 prewar battleships, 2 heavy cruisers, 3 light cruisers, and 10 destroyers. Available for preliminary bombardment, direct fire support, and indirect fire support, these ships gave Hill 16 16-inch, 12 14-inch, 20 8-inch, 40 6-inch, and 70 5-inch guns with which to reduce Betio's defenses.⁴¹

The American assault force arrived off the coast of Betio at 0320 on 20 November, and the planned bombardment went wrong from the start. The transports anchored in the wrong spot, obstructing the line of fire for portions of the gunfire support group. Admiral Hill was forced to move the transports to their assigned location before commencing the bombardment, delaying unloading operations of the initial assault waves.⁴²

The first guns to fire at 0507 that morning were not American, but the Japanese 8-inch naval guns posted on Betio (figure 41). They were proof that preinvasion aerial bombardment had failed to disable these significant threats to the landing force. Counterbattery fire from American battleships USS *Colorado* (BB 45) and USS *Maryland* (BB 46) silenced the guns; but the firing of the big guns knocked out the communications suite on the flagship *Maryland*, blacking out Hill and Smith's ability to monitor and influence the battle as it unfolded (figure 42).⁴³

³⁸ Alexander, *Across the Reef*, 1.

³⁹ Alexander, *Across the Reef*, 4.

⁴⁰ Edson, "Estimate of the Situation—Gilberts (5 October 1943)," 17.

⁴¹ Edson, "Estimate of the Situation—Gilberts (5 October 1943)," 10–12.

⁴² Alexander, *Across the Reef*, 8.

⁴³ Alexander, *Across the Reef*; and United States Fleet, "Summary of Ground Situation Galvanic," Record Group (RG) 38, CINCUS, Plans Division, Pacific Section, Records re to WWII Amphibious Ops, 1941–1946, box 8, National Archives and Records Administration (NARA), College Park, MD, 1.



FIGURE 41

One of the four Japanese 8-inch Vickers guns on Tarawa destroyed by naval gunfire and air strikes.
Official U.S. Marine Corps photo #63618



FIGURE 42

USS *Maryland* firing its main guns in the preinvasion bombardment of Tarawa, 20 November 1943.
Task force commander RAdm Harry W. Hill (left) looks through binoculars.
Official U.S. Navy photo USNHC # 80-G-54398, now in the collections of the National Archives

Admiral Ernest J. King, commander in chief, U.S. Fleet, anticipated this prior to the battle. In an exchange with Nimitz about Hill retaining the 16-inch gunned *Maryland* as his flagship, King responded promptly, disapproving it and stating that “16-inch battleships should not be given secondary combat duties. Assign vessel of [Battleship Division] BatDiv 3 as flagship for Hill.”⁴⁴ Nimitz pushed back, contending that *Maryland* was a better flagship and that the “necessity for assembly of ships of each assault group for training and rehearsals makes interchange battleships or ships of assault groups very difficult.”⁴⁵ The need for a dedicated amphibious force flagship was identified from operations in the Solomon Islands, but these ships were not yet available in November 1943. Despite King’s direction to the contrary, the expediency of assault on Tarawa left Hill and Smith aboard *Maryland* without the ability to effectively command and control their units. This catastrophic loss of communications reinforced the need for a dedicated amphibious force flagship.

The next problem encountered was the inadequate coordination between the gun ships and the supporting aircraft carriers. Expecting aerial bombardment to commence as scheduled at 0545, Hill ordered the gunfire support ships to cease fire at 0542, after less than 40 minutes of gunfire. Unbeknownst to Hill, the Carrier Strike Group had pushed back their attack by 30 minutes, resulting in a gap in the bombardment of Betio until 0605, when Hill ordered his ships to resume firing. This allowed the defenders a 23-minute respite—time for them to brush off the sand, assess damage, and recover from the shock of the heavy shellfire. American aircraft finally arrived at 0610. After the planes’ departure, the ships of Task Force 53 recommenced the saturation bombardment of Betio for the next two and a half hours. Even under this hail of gunfire, the Japanese remained defiant, resuming fire from the 8-inch guns not destroyed in the earlier duel. This caused the transports to weigh anchor and move farther out to sea, further delaying the unloading of the initial assault waves.⁴⁶

H-hour was postponed twice due to the delay in unloading the transports and the slow movement of the initial wave of amphibious tracked vehicles (landing vehicles, tracked, or LVT) as they struggled to reach the beach. This allowed for an additional 30 minutes of saturation bombardment from the gunfire support ships (figure 43). Unfortunately, the airstrike that was to coincide with the landing arrived at its originally scheduled time while the first wave was still more than two miles from the beach. Hill compounded this error by lifting the gunfire from the support ships at 0854 with the assault waves still more than 4,000 yards offshore.⁴⁷ This meant that the LVTs had to transit this last stretch with the Japanese defenders unmolested by naval gunfire, a situation specifically warned against in the *Tentative Manual*. Soon,

⁴⁴ Nimitz “Graybook”, 1811.

⁴⁵ Nimitz “Graybook”, 1812.

⁴⁶ “Summary of Ground Situation Galvanic,” 1; and Alexander, *Across the Reef*, 8–9.

⁴⁷ Omar T. Pfeiffer, “Brief of Report of Amphibious Operations for the Capture of the Gilbert Islands,” RG 38, CINCLUS, Plan Division, Pacific Sector, Records re to WWII Amphibious Ops, 1941–1946, box 8, NARA, 10; and Alexander, *Across the Reef*, 10–11.



FIGURE 43
USS *Colorado* (BB 45) bombarding Tarawa, Gilbert Islands, 20 November 1943.
Official U.S. Navy photo, now in the collections of the National Archives

the assault wave was receiving high volumes of artillery, mortar, and machine-gun fire from the Japanese defenders.⁴⁸

Another issue was that lack of gunfire directed at specific targets instead of area fire designed to harass and delay enemy movement. As impressive and unprecedented as the preliminary bombardment appeared, it failed to soften the Japanese defenses, designed to withstand all but a direct hit, significantly.⁴⁹ The well-protected defenders simply shook off the sand and manned their guns.⁵⁰ An undated “Summary of Ground Situation Galvanic” prepared for Admiral King indicated that naval and air bombardment provided “effective neutralization of the shore defenses [that] permitted our initial landings to be made with small personnel casualties.”⁵¹ This appears to be mostly wishful thinking by staff officers back in Washington based on their assumption that the naval bombardment was executed per plan and was as effective as expected.

The reality of the situation was very different. In fact, late on D-day, General Smith reported “Issue in doubt” to Fifth Amphibious Force commander, Rear Ad-

⁴⁸ A. H. Noble, “Brief on Tarawa Operations,” RG 38, CINCUS, Plan Division, Pacific Sector, Records re to WWII Amphibious Ops, 1941-1946, box 8, NARA, 1.

⁴⁹ Alexander, *Across the Reef*, 11.

⁵⁰ Alexander, *Across the Reef*, 11.

⁵¹ “Ground Situation Galvanic,” 1-2.

miral Richmond K. Turner, and asked for the release of the 6th Marines from operational reserve.⁵² Smith's message was forwarded to King on 21 November, so perhaps his staff's rosy assessment, clearly written after that date, reflects the need for the doctrine of opposed amphibious assault to be effective. If the Navy could not effectively provide gunfire support for these landings, the entire Central Pacific campaign was in doubt.

GUNFIRE SUPPORT TO TROOPS ASHORE

Fire support for the Marines ashore after the landings was somewhat better, but far from ideal. As part of the fire support plan, two destroyers—USS *Ringgold* (DD 500) and USS *Dashiell* (DD 659)—each armed with five 5-inch guns and a variety of smaller-caliber weapons, entered the Tarawa lagoon behind minesweeper USS *Pursuit* (AM 108) early on D-day (figure 44). With larger ships kept at longer ranges by the reefs surrounding the atoll, destroyers in the lagoon would offer invaluable service to the Marines on shore, providing the only direct fire support available at the time.⁵³

The destroyers delivered direct fire support to Major Henry P. Crowe's Landing Team 2/8 at Red Beach 3 throughout 20 and 21 November. Unable to fire during Crowe's actual assault due to the cease-fire called by Hill at 0855, the preassault gunfire was nevertheless effective in keeping the Japanese defenders holed-up on the eastern end of the island during the Marines' landing there.⁵⁴ The close-in fire support ships were called on repeatedly into 21 November. At one point, Crowe authorized direct fire into a command bunker a mere 50 yards ahead of the Marines. After the battle, Crowe praised the support provided by the destroyers in the lagoon, exclaiming that "I had the *Ringgold*, the *Dashiell*, and the *Anderson* [DD 411] in support of me. . . . Anything I asked for I got from them. They were great!"⁵⁵ Likewise, on the opposite end of the island, Major Michael P. Ryan, commanding a makeshift battalion, called on destroyers in the lagoon to support a coordinated tank-infantry assault that resulted in the seizure of all of Green Beach.⁵⁶

The destroyer commanders, however, were frustrated with the manner in which naval gunfire support was coordinated with the troops ashore. *Dashiell's* commanding officer related one incident in which the ship had a clear shot at an enemy rapid-fire gun just east of the Burns-Phillips pier on Betio. *Dashiell* requested permission from the shore fire control party to engage the gun to support the troops attempting to outflank it but, for reasons unexplained to the ship, was denied permission to "get that gun" for more than two hours. Without insight into the location of troops ashore, *Dashiell's* crew was unable to engage on their own initiative, despite the ability

⁵² CTF 53 (Hill), telegram to CTF (Turner), 21 November 1943, RG 38, CINCLUS Plans Division, Pacific Section, Records re WWII Amphibious Ops, 1941-1946, box 8, NARA.

⁵³ Alexander, *Across the Reef*, 10.

⁵⁴ Alexander, *Across the Reef*, 14.

⁵⁵ Alexander, *Across the Reef*, 30.

⁵⁶ Alexander, *Across the Reef*, 30-31.



FIGURE 44

USS *Dashiell* (DD 659) alongside a battleship during the Gilbert Islands operations, November 1943.
Official U.S. Navy photo USNHC # 80-G-56275, now in the collections
of the National Archives and Records Administration

to do so and the clear advantage that would be gained.⁵⁷ *Anderson's* commanding officer also complained about the lack of responsiveness of the shore fire control parties. From its position offshore, *Anderson's* crew could see enemy movement behind the Marines' lines and reported it to Shore Fire Control Party 82, but were not able to fire at these enemy forces having "previously, however, been directed to fire only at specified targets."⁵⁸

Dashiell's gunnery officer complained about the rigidity of scheduled gunfire preceding the landing, specifically citing the required ceasefire at 0855 despite the delay of the landing to 0913 from the scheduled 0900 and FTP 167, which stated, "to avoid these eventualities fire-support groups should on their own initiative delay the time of execution of the preparation fires (or repeat them)."⁵⁹ At Tarawa, *Dashiell's* gunnery

⁵⁷ "Report of Commanding Officer USS *Dashiell*—Tarawa," in *Amphibious Operations during the Period August to December 1943* (Washington, DC: Headquarters of the Commander in Chief, Navy Department, 1944), 3-4.

⁵⁸ "Report of Commanding Officer USS *Anderson* (DD)," in *Amphibious Operations during the Period August to December 1943*, 3-6.

⁵⁹ FTP 167 quoted in "Report of Gunnery Officer, USS *Dashiell*," in *Amphibious Operations during the Period August to December 1943*, 3-5.

officer claimed, this unit-level initiative was not allowed, resulting in the 18-minute gap in fire as the troops approached the beach.⁶⁰

In spite of these difficulties, by the afternoon of 21 November, the tide of the battle had shifted in favor of the Marines. Well supported by naval gunfire, and with artillery that was now ashore, Shoup sensed the shift in momentum and reported to General Smith, "Casualties: many. Percentage dead: unknown. Combat efficiency: *We are winning.*"⁶¹ As more of the Marines' artillery arrived ashore, the support required from the naval gunfire support ships diminished. At 0400 on the morning of 23 November, when the Japanese garrison mounted its last frenzied assault, the destroyers USS *Schroeder* (DD 501) and USS *Sigsbee* (DD 502) emptied their 5-inch magazines to help repel the attack.⁶²

LESSONS LEARNED

Recognition that the invasion of Tarawa would yield lessons for future assaults was immediate. In his congratulatory message on 21 November, Spruance wrote that "the lessons learned from your battle on Betio Island will be of greatest value to our future operations."⁶³ The "Report of Amphibious Operations for the Capture of the Gilbert Islands," prepared for Turner less than a week after the assault, included 11 enclosures and encompassed a wide range of operational areas.⁶⁴ This analysis was critical to continued operations in the Central Pacific since, as early as September, the Joint Chiefs of Staff ordered the assault on the Marshall Islands on "01 January 1944, contingent upon the successful completion of the GILBERT operations."⁶⁵

Perhaps the most important overall lesson was that "air and naval gunfire preparations for two or three hours is not adequate."⁶⁶ It is evident that the preparatory bombardment needed to begin several days in advance. Turner's assessment stated unequivocally that "the assault should be preceded by several days [not hours] of deliberate bombardment and day and night air attacks. Defenders should be given no rest day or night for at least a week prior to landing."⁶⁷ Given that the Imperial Japanese Navy did not materialize, the need to prevent the carnage of the first day on Tarawa clearly trumped Nimitz's concern for surprise. His command's reporting

⁶⁰ "Report of Gunnery Officer, USS *Dashiell*," 3-5.

⁶¹ "Report of Gunnery Officer, USS *Dashiell*," 33.

⁶² "Report of Gunnery Officer, USS *Dashiell*," 33, 42-43.

⁶³ COMCENPAC (Spruance), telegram to CTF 53 (Hill) and 2d MarDiv (Smith), 21 November 1943, RG 38, CINCUS Plans Division, Pacific Section, Records re WWII Amphibious Ops, 1941-1946, box 8, NARA.

⁶⁴ Commander, Fifth Fleet Amphibious Force, "Report of Amphibious Operations for the Capture of the Gilbert Islands," WWII Gilberts to Tarawa, Operational Reports, box 4, Historical Resources Branch, Marine Corps History Division, Quantico, VA.

⁶⁵ Nimitz "Graybook", 1804.

⁶⁶ Pfeiffer, "Brief of Report of Amphibious Operations for the Capture of the Gilbert Islands," 8.

⁶⁷ Pfeiffer, "Brief of Report of Amphibious Operations for the Capture of the Gilbert Islands," 10.

on 21 November acknowledges the fact that “reaction by enemy to GALVANIC clearly indicates opposition by submarines and by air attack from MARSHALLS or NAURU. Use of surface craft unlikely.”⁶⁸ Turner also argued for augmenting the long-range bombardment with vessels armed with rockets and guns that could provide direct support to the landing and that these vessels should be included in the assault waves. He also noted that rehearsals, especially the final rehearsal, must include as many of the actual forces as possible.⁶⁹

Subordinate units also provided recommendations for improving naval gunfire support. Hill concurred with Turner’s assessment on rehearsals, noting that to ensure proficiency, all gunfire support ships should be required to take bombardment practice. He also recommended adjusting the fall of shot for higher angle bombardment. Echoing the concerns of *Dashiell’s* gunnery officer, Hill suggested stationing close fire support ships in a position that allowed for “continuous observation of the assault boat waves, permitting these ships to decide at what time their fire must be ceased for safety of landing personnel.”⁷⁰ He advised that planning for scheduled preassault bombardment be delegated to the fire support section commanders once given broad guidance for overall effects desired, general areas to be covered, and types of ammunition to be used. This would allow optimal use of the various guns available to the individual fire support sections and result in less wasted ammunition.⁷¹ Discussing the 23-minute pause in bombardment while awaiting the delayed air strike, Hill urged that naval gunfire not be lifted for air bombardment. He observed that several times during the fighting on Betio, air attacks occurred during periods of gunfire without hazard.⁷²

The naval gunfire support provided for the assault on Betio got mixed reviews from the Marines. While enthusiastic about the response from destroyers in the lagoon, the Marines were critical of the extent and accuracy of the preliminary bombardment, especially its premature termination on 20 November. Major Ryan observed that the significant shortcoming of Operation Galvanic “lay in overestimating the damage that could be inflicted on a heavily defended position by an intense but limited naval bombardment, and by not sending in the assault forces soon enough after the shelling.”⁷³ Major John F. Schoettel, who commanded Landing Team 3/2 at Tarawa, went much further noting that “the hasty, saturation fires, deemed sufficient by planners in view of the requirement for strategic surprise, proved essentially use-

⁶⁸ Nimitz “*Graybook*”, 1755.

⁶⁹ Fifth Fleet Amphibious Force, “Report of Capture of the Gilbert Islands, 4 December 1943,” Enclosure (E), Marine Corps University, Quantico, VA, 3.

⁷⁰ “Report of Commander Southern Task Force,” in *Amphibious Operations during the Period August to December 1943*, 3-9.

⁷¹ “Report of Commander Southern Task Force,” 3-8.

⁷² “Report of Commander Southern Task Force,” 3-10.

⁷³ Alexander, *Across the Reef*, 52.

less.⁷⁴ What was needed, he declared, was “sustained, deliberate, aimed gunfire.”⁷⁵ In his response to Senator David I. Walsh’s inquiry about the casualties suffered at Tarawa, Commandant General Alexander A. Vandegrift avoided placing blame on the limits applied to the preassault bombardment. He wrote that “where the defenses are very strongly constructed, as at Tarawa, the gunfire and aerial bombardment has only partial effect. Many of the hostile installations will remain operative and fire from them must be faced.”⁷⁶

Brigadier General A. H. Noble, chief of staff of the I Marine Amphibious Corps during Operation Galvanic, prepared a “Brief on Tarawa Operations” that appears directed to planners preparing for operations after Tarawa. In that brief, he reiterated several of the conclusions above, including the need for sustained preassault bombardment. Heavy bombardment at Tarawa appeared initially to be effective, putting 244 5-inch rounds per 100 square yards between 20 and 22 November. Yet, this volume of fire did not destroy bunkers along the beaches. Noble’s remedy, in addition to significantly lengthening the preinvasion bombardment, was to move firing vessels closer to the beach with the first wave, firing precision point-blank fire until H-hour and continuing fire on the flanks during the actual landing.⁷⁷ Noble confirmed the general praise for close support destroyers and called for them to close within 500 yards of the beach if water permitted. For troops in contact, Noble asserted that gunfire support destroyers could fire as close as 50 yards from the troops, but they must have a Marine artillery officer on board to coordinate fires.⁷⁸

LESSONS APPLIED?

Applying the lessons of Tarawa to follow-on island assaults was critical to the overall success of the Central Pacific campaign, predicated as it was on seizing these enemy bases for follow-on operations. The bloody cost of Tarawa caused military leaders, politicians, and the American public to question the wisdom of opposed amphibious assault. If Nimitz were to continue this campaign to seize Japanese-held island bases across the Central Pacific, the lessons of Tarawa would need to be applied rapidly and well before the next assault planned for the Marshall Islands just two months in the future.

Navy and Marine Corps planners took Tarawa’s lessons on preinvasion bombardment and naval gunfire support to heart. Critical changes were rapidly made to the magnitude of the preinvasion bombardment and to command and control of naval gunfire. Analysis of the Marshall Islands operation shows how well the lessons of

⁷⁴ Alexander, *Across the Reef*, 52.

⁷⁵ Alexander, *Across the Reef*, 52.

⁷⁶ A. A. Vandegrift to David I. Walsh, 15 December 1943, Alexander A. Vandegrift Papers, box 2, Historical Resources Branch, Marine Corps History Division, Quantico, VA.

⁷⁷ Noble, “Brief on Tarawa Operations,” 1.

⁷⁸ Noble, “Brief on Tarawa Operations,” 2.

Tarawa were learned. In the opening to his report on the Marshall Islands operations, commander of the Fifth Fleet Admiral Spruance credited “a heavier and more protracted bombing and bombardment, than was made at TARAUA, of any objectives held in strength by the enemy prior to their assault by our landing forces,” as one of five key reasons for its success with minimal losses.⁷⁹

Application of the lessons about naval gunfire of Tarawa falls into two categories: systemic and operational. Systemic changes included the reorganization of forces, development of new equipment, and implementation of force training, while operational changes focused on the application of naval gunfire during the planning and execution of the assault.

Some of the systemic changes were borne of lessons from Guadalcanal but reinforced by the experience at Tarawa. The loss of critical communications aboard the amphibious force commander’s flagship at Tarawa reemphasized the need for a dedicated command ship where communications would not be affected by jarring salvos. Amphibious command ships (AGC) were converted merchant ships with dedicated command spaces and communications equipment designed to support command and control of naval and Marine forces during an amphibious assault. These ships ensured continuity of control to the amphibious task force commander and the landing force commander throughout the operation. Two newly constructed command ships, each equipped with the latest radio and radar equipment, were provided for the Marshall Islands operation. USS *Appalachian* (AGC 1), arrived in the Pacific in time to act as the flagship for the Northern Task Force of Rear Admiral Richard L. Conolly and Marine Corps major general Harry Schmidt for the invasion of Roi and Namur on 31 January 1944.⁸⁰ Rear Admiral Turner flew his flag at Kwajalein on board USS *Rocky Mount* (AGC 3).⁸¹ Hill also received a new flagship, USS *Cambria* (APA 36), which had been partially converted into a headquarters ship.⁸² Use of dedicated command ships proved successful in the Marshall Islands operation by providing a command post afloat separated from the gunfire support mission of previous flagships and dedicated systems to command the entire force. They were adopted for all future amphibious assaults in the Central Pacific.

Another systemic lesson came from the need for trained shore liaisons capable of coordinating aerial bombardment, naval gunfire, and artillery support with the troops in contact with the enemy. Joint assault signal companies (JASCOS) began

⁷⁹ Commander Fifth Fleet, “Marshall Islands Operations—January 1944,” in *Amphibious Operations: The Marshall Islands, January–February 1944* (Washington, DC: Headquarters of the Commander in Chief, Navy Department, 1944), 1-1.

⁸⁰ Commander Northern Attack Force, “ROI and NAMUR,” in *Amphibious Operations: The Marshall Islands, January–February 1944*, 1-22–1-28.

⁸¹ “USS *Rocky Mount* (AGC 3),” NavSource Online: Amphibious Photo Archive, 1 February 2019.

⁸² Philip A. Crowl and Edmund G. Love, *United States Army in World War II: The War in the Pacific—Seizure of the Gilberts and Marshalls* (Washington, DC: Center of Military History, U.S. Army, 1993), 172–73.

forming in October 1943 and were first employed during the Marshall Islands campaign. Composed of Marine and Navy personnel, including aviation liaison officers, JASCOs replaced the ad hoc shore fire control parties that had operated at Guadalcanal and Tarawa and coordinated field artillery, naval gunfire, and close air support for troops ashore.⁸³ The 1st JASCO supported the Northern Attack Force's assault on Roi and Namur islands and proved instrumental for coordinating "call" fires in the capture of Kwajalein Atoll.⁸⁴ Participating in all rehearsals leading up to the assault, the members of 1st JASCO trained under the direct supervision of the commander, Group Three, Fifth Amphibious Force, in the month prior to the assault.⁸⁵ Their performance at Roi and Namur alleviated many of the concerns voiced by the direct support ships at Tarawa, most specifically the inability to communicate with the shore fire control parties.

A third systemic addition to the naval gunfire support regime resulting from lessons at Tarawa was the rocket support ship. Twelve landing craft, infantry (large) (LCI(L)) converted into landing craft, infantry (rocket) (LCI(R)) by adding 40mm guns and 5-inch rocket launchers were available and used for every landing in the Marshall Islands campaign. These vessels preceded the first assault wave and provided close-in fire support during the final phase of the assault when the gunfire from the naval support group was forced to shift to the flanks to prevent fratricide. First used at Kwajalein, these ships proved invaluable in addressing the concerns of fire support to the initial assault wave when long range naval gunfire was unavailable, especially as tactics were refined based on lessons from the Marshall Islands operation.⁸⁶

Perhaps the most important systemic application of the lessons from Tarawa was the formation of a number of amphibious warfare training centers throughout Hawaii, including a naval gunfire training center on Kahoolawe Island, Hawaii. Formed in late 1943, the V Amphibious Corps' Naval Gunfire Section eventually supported training and qualification of 532 Pacific fleet ships with live fire practice at the Kahoolawe range.⁸⁷ This range allowed entire fire support sections to rehearse together with their assigned JASCO elements and with assault forces to practice naval gunfire support tactics, techniques, and procedures together and to perfect timing and co-

⁸³ Gordon L. Rottman, *U.S. Marine Corps World War II Order of Battle: Ground and Air Units in the Pacific War, 1939-1945* (Ann Arbor, MI: Greenwood Press, 2002), 233.

⁸⁴ Naval gunfire support consists of planned fires and call fires. Planned fires are predetermined and normally fired based on a schedule relative to planned troop movement. Call fires are available from ships standing by offshore and fired at targets and times dictated by the needs of the troops on shore.

⁸⁵ Commander Northern Attack Force, "Naval Gunfire, Roi-Namur," in *Amphibious Operations: The Marshall Islands, January-February 1944*, 3-11.

⁸⁶ Commander Joint Expeditionary Force, "Marshall Islands Operation-January, 1944," in *Amphibious Operations: The Marshall Islands, January-February 1944*, 3-3.

⁸⁷ Rottman, *U.S. Marine Corps World War II Order of Battle*, 234.

ordination under realistic conditions in advance of the Marshall Islands invasions.⁸⁸

Operational lessons from Tarawa on naval gunfire focused primarily on the planning and execution of the preassault bombardment and direct support once the Marines were on the beach. In the interval between the Gilberts and Marshalls invasions, several improvements were made in the techniques used to soften up the enemy defenses before the first troops touched shore. These all added up to one thing: a significant increase in both the quantity and accuracy of firepower to be delivered before the invasion. Planners included a longer period of preliminary aerial bombardment both from the newly acquired island bases in the Gilberts and from the expanding fast carrier force. Additionally, planes and gunfire support ships moved into the target area to shell and bombard enemy installations one day before the initial landings in the Marshalls and a full two days before execution of the main landings. This was significantly more than the three hours of preinvasion bombardment provided at Tarawa. Invasion plans also included landing field artillery on islands adjacent to the target islands a day before assaulting these two main objectives with ground troops. The field pieces were registered on the larger islands in time to support the assault troops as they moved from ship to shore.⁸⁹

In his report to the War Department, the commanding general of the Central Pacific Area, Lieutenant General Robert C. Richardson Jr., stated, "As a result of the Tarawa operations, the attacks on Roi, Namur and Kwajalein Islands, in Kwajalein Atoll, comprised of intense preparation, of three days' duration, using bombs from 100 to 2000 lbs. and short range naval gunfire from 5 [inch] to 16 [inch]."⁹⁰ Lest the planners think they figured out all the errors of Tarawa, the commander of the Fifth Amphibious Force praised the application of lessons from the Gilberts campaign, but also warned that "over-emphasis of certain problems which [were] experienced at TARAUA has exaggerated in the minds of those concerned. This caused general doubt regarding the effectiveness of our weapons and tactics, and much time and effort expended on dubious and fruitless claims."⁹¹

Another gunfire support deficiency from Tarawa addressed by changes in techniques were gaps in fire support resulting from delays in assault timing. At Tarawa, gaps occurred when air bombardment was delayed and when naval gunfire was halted at the scheduled time with the initial assault wave still 4,000 yards off the beach. During the Marshall Islands invasion, gunfire support groups had better visibility of the assault wave with destroyers stationed 2,000 yards off the beach along the flanks

⁸⁸ "Kahoolawe Is Mother of Naval Gunfire Technique," *Honolulu (HI) Star-Bulletin*, 16 August 1946, 19; and Crowl and Love, *United States Army in World War II*, 44-45.

⁸⁹ Crowl and Love, *United States Army in World War II*, 172-73.

⁹⁰ "Report of War Department Mission for Commanding General Central Pacific Areas dated March 1, 1944," in *Amphibious Operations: The Marshall Islands, January-February 1944*, 1-21.

⁹¹ "Report of Commander Joint Expeditionary Force," in *Amphibious Operations: The Marshall Islands, January-February 1944*, 3-1.

of the assault lanes.⁹² This level of observation allowed preparatory fires to be maintained until the assault wave was 300–500 yards from the beach, only then shifting to the flanks of the assault beach. To account for schedule delays, gunfire support groups recycled the schedule to “repeat all fires for the otherwise silent period exactly as scheduled, but with a greatly curtailed allowance of ammunition.”⁹³ Major General Holland M. Smith, commanding general of V Amphibious Corps in Operation Flintlock, praised these changes to gunfire support procedures and recommended “that similar or more intensified naval bombardment be used in future operations.”⁹⁴ Smith also commended gunfire support of the final assault, stating that “such carefully planned fires proved safe and highly satisfactory.”⁹⁵

We must be careful, however, to ascribe too much to the successful application of lessons from Tarawa to Kwajalein as a predictor of success in future assaults. The Japanese also learned from Tarawa, though the speed of the American advance deprived the Japanese of the time needed to prepare their defenses and the American assaults at Kwajalein and Eniwetok were relatively uncontested.⁹⁶ The Japanese were, however, able to apply lessons from Tarawa and Kwajalein to defend against subsequent American assaults on the Mariana Islands and other Japanese-held islands.

CONCLUSION

With the Japanese on the defensive, the Americans were poised to commence a strategic offensive across the Central Pacific, an offensive imagined by American war planners since the 1930s. The U.S. Marine Corps’ *Tentative Manual for Landing Operations* (1934) established the doctrine of opposed amphibious landings on which this offensive depended. The invasion of Tarawa in November 1943 provided the first test of this doctrine. Success in the Central Pacific campaign required effective Marine Corps doctrine.

The 2d Marine Division planners incorporated naval gunfire doctrine derived from the *Tentative Manual* into their plan to defeat the Japanese fortifications on Betio. Despite detailed planning, naval gunfire support was one of the areas most critiqued following Operation Galvanic. Naval planners promised to “obliterate” the island, but the preinvasion bombardment underdelivered on that promise. Failure of the initial bombardment resulted in the assault force facing relatively intact defense at the water’s edge. After the landing, destroyers of the naval support force provided

⁹² “Report of Commander Destroyer Squadron One (Roi-Namur),” in *Amphibious Operations Amphibious Operations: The Marshall Islands, January–February 1944*, 3-25.

⁹³ “Report of Commander Joint Expeditionary Force,” in *Amphibious Operations: The Marshall Islands, January–February 1944*, 3-5.

⁹⁴ “Report of Commanding General Fifth Amphibious Corps,” in *Amphibious Operations: The Marshall Islands, January–February 1944*, 3-16.

⁹⁵ “Report of Commanding General Fifth Amphibious Corps,” 3-17.

⁹⁶ Theodore L. Gatchel, *At the Water’s Edge: Defending Against the Modern Amphibious Assault* (Annapolis, MD: Naval Institute Press, 1996), 130–32.

critical direct fire support to Marines on the island, demonstrating the value of naval gunfire while awaiting the arrival of shore-based artillery. While the lessons of naval gunfire at Tarawa were quickly learned and applied in Operation Flintlock, General Julian Smith succinctly summarized the success of the combined forces of Task Force 53 in Operation Galvanic: “We made fewer mistakes than the [Japanese] did.”⁹⁷

⁹⁷ Alexander, *Across the Reef*, 52.

CHAPTER FOURTEEN

Soviet Strategic Attack and the Tactical Amphibious Failure at Merküla in 1944

Andrew Del Gaudio

Since the 2014 invasion and subsequent occupation of Crimea by Russia, many strategists have speculated on Russia's intentions for other former Soviet republics, including the Baltic states. Geography and timing have largely dominated the history of conflict in the Baltic region, with observations from the wars of the twentieth century informing the possibilities influencing the future security environment for the region. With the forests, rivers, and swamps of the Baltic states as obstacles, military operations during the latter half of the World War II period became canalized and slow-moving, making forces susceptible to air or ground attack. In the past century, strategic leaders sought to maintain offensive momentum through the use of amphibious operations for strategic, operational, or tactical purposes to avoid the wasteful Verdun-like offensives of World War I. The sea has often been seen as the *open flank*, and leadership on all sides of the conflict by 1944 certainly understood the reality of amphibious capability.

To Russia, the 2004 inclusion of the Baltic states in the North Atlantic Treaty Organization (NATO) was a direct affront to historical Russian domination of the area solidified by the results of the Great Patriotic War in May 1945. Russia still considers the Baltic states its war prize. Russian political and military leadership today is acutely aware of the issues associated with attacking the Baltic region from the many examples seen during World War II. The purpose of this chapter is to examine historic Soviet (Russian) strategic goals in war, the German defensive plan for the Baltic region, and the Soviet tactical offensive methodology that included the use of

amphibious operations at Merküla in the winter of 1944 to conquer the Baltic region by breaking the Panther Line at the Narva River in early 1944.

In a general order dated 1 May 1944, Premier Joseph Stalin articulated Soviet strategic goals as being “to clear the Soviet land from Fascists and restore state borders of the Soviet Union in all directions from the Black to the Barents Sea[s], to chase the wounded beast back into his lair and finish him off, and to free our brother Poles, Czechs and other allies in Eastern Europe.”¹ Stalin’s words shaped Soviet campaign planning for 1944–45 and how the war was to be brought to an end. Per the *History of the Second World War*, the campaign plan would place the massive weight of the Soviet offensive against German forces on a “broad front.”²

Soviet leadership intended to start the offensive with Leningrad and Karelian front operations on Karelia neck and in South Karelia. A drive in this direction would force German troops to be drawn from the central part of the German front as well as potential knock Finland out of the war. The Leningrad and Karelian front operations should have been immediately followed by the crushing blow of four fronts in Belarus which, in turn, were to be followed by 1st Ukrainian Front’s decisive attack in the direction of Lvov. German weakness would result in forces being shifted up and down the front to meet the continuing Soviet thrusts. Meanwhile, it was planned to hold forces of German *Army Group North*, prevent them from helping neighboring *Army Group Center*. After these operations, the Soviets would start active offensive operations in the Balkans, Baltic, and far north.³

In the grand Soviet scheme, offensive operations planned for the breakout of Leningrad would be a supporting effort attack to enable the successful destruction of German *Army Group Center* to the south.⁴ In doing so, the Soviets would accomplish all of their goals: destruction of the enemy, as well as the investment of the Baltic states or to the Soviet mind, and the reestablishment of the Soviet prewar borders.⁵

As most matters of Soviet strategy were decided by Stalin, it is necessary to examine what Stalin understood about Leningrad and how these thoughts helped form decisions toward a strategy to free the city and fulfill his desires for the postwar

¹ J. V. Stalin, *Success in the Great Patriotic War* (Moscow, USSR: Foreign Languages Publishing House, 1953), 145–46.

² *История второй мировой войны 1939–1945* (History of the Second World War, 1939–1945, vol. 9) (Moscow, USSR: State Publishing, 1978).

³ *История второй мировой войны 1939–1945*, 20.

⁴ During World War II, Germany used its army groups to control its fronts, including Army Group A, Army Group B, Army Group C, Army Group D, Army Group E, Army Group F, Army Group G, Army Group H, Army Group Africa, Army Group Don, Army Group Courland, Army Group Liguria (*Heeresgruppe Ligurien*), Army Group Center (*Heeresgruppe Mitte*), Army Group North (*Heeresgruppe Nord*), Army Group North Ukraine (*Heeresgruppe Nordukraine*), Army Group Ostmark (*Heeresgruppe Ostmark*), Army Group South (*Heeresgruppe Süd*), Army Group South Ukraine (*Heeresgruppe Südukraine*), Army Group Tunisia (*Heeresgruppe Tunis*), Army Group Upper Rhine (*Heeresgruppe Oberrhein*), and Army Group Weichsel (*Heeresgruppe Weichsel*).

⁵ *История второй мировой войны 1939–1945*.

period. As a strategic leader, Stalin had a greater appreciation for the operating environment of Leningrad than most scholars give him credit for. Examining the fourth volume of *Stalin's Collected Works*, he explains the area of then-Petrograd from his experiences during the Russian Civil War. In an interview with *Pravda* printed on 8 July 1919, Stalin concisely explains Petrograd in terms of avenues of approach and how to capture the city.⁶

Stalin had 22 years between 1919 and 1941 to reflect on these military lessons, while he continued to develop as a strategic thinker and leader. The following depiction provided to a writer from *Pravda* offers a tactical look at the terrain surrounding Petrograd and provides significant background to Stalin's understanding of the military problems he faced again in Leningrad in 1941. Of particular note here was his understanding that an approach in the Narva sector (modern-day Estonia) threatened Leningrad from the south or southwest.⁷ Understanding lines of operation run both ways, meaning toward friendly lines and the enemy, the Soviets planned the attack to liberate the city. These lines of operation were certainly considered by the German campaign plan, Fall Blau (Operation Blue), that was developed to stop the Soviets from attacking down the Narva sector axis in late 1943.⁸

After the Battle of Kursk in July 1943, the German tactical units on the eastern front no longer had any delusion of far-reaching offensive operations as during the opening days of the war. With clear understanding of Adolf Hitler's intentions to defend to the last person, and faced with the reality of an impending Soviet attack in force on all fronts, commanders in *Army Group North* examined possibilities for how they would defend against what they knew the Soviets would bring. On 2 September 1943, *Army Group North* issued a study named Operation Blue examining the problem of retrograding forces in heavy contact in the time and space of the Leningrad Front.⁹

As is the case with all plans and orders, there must be a stated purpose for the proposed operation. For Operation Blue, the purpose was to transmit "the plan of withdrawal of Army Group North to the 'Panther Position,'" which was the Narva River from the Baltic Sea in the north through Lake Peipus in the south (figure 45).¹⁰ In essence, the Panther Line was the modern-day border of Estonia. The plan's secrecy was paramount to keeping the Soviets and Berlin unaware of *Army Group North's* intentions. This secrecy, however, had an unwanted side effect because planners were restricted and unable to plan laterally due to their small numbers.

⁶ J. V. Stalin, *Stalin's Collected Works*, vol. 4, *October 1917–1920* (Moscow, USSR: Foreign Languages Publishing House, 1953), 275.

⁷ Stalin, *Stalin's Collected Works*, vol. 4.

⁸ *Army Group North's* Fall Blau, or Operation Blue, can be found in Records of German Field Commands: Army Groups, Microfilm Publication T-311, Roll 76, First Frame 7099655, National Archives and Records Administration (NARA), College Park, MD, and is the subject of the next section.

⁹ Records of German Field Commands.

¹⁰ Records of German Field Commands, frame numbers 7099658 and 7099655. See the graphic depictions found in the maps and overlays attached to the study.

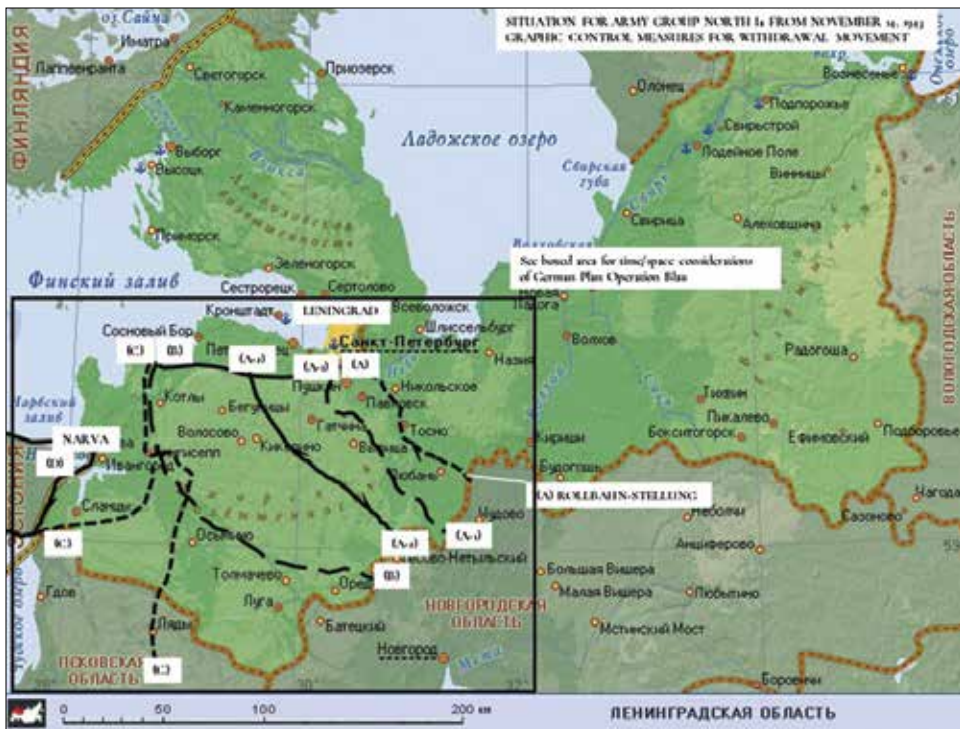


FIGURE 45
 Army Group North retrograde positions from Leningrad.
 NARA T-311, Roll 76, First Frame 7099655

Operation Blue's executive summary tasked the army and other subordinate headquarters to examine key tasks and respond to *Army Group North's* headquarters by 15 September 1943, so planning could be completed. For subordinate armies, the following tasks were to be planned:

1. Time/phase flow of the proposed withdrawal movement (e.g., how would the subordinate armies plan to withdraw their subordinate units across the time and space to reach the Panther Line);
2. Use of any freed-up combat power (e.g., as a result of the proposed army withdrawal plan, would any combat power be freed up for other taskings; while not stated, it would serve as a reserve force for counterattack);
3. Positions and arrangement of forces in the Panther Line once reached;
4. Positions along the rearward withdrawal route of the armies in sector;
5. Position of army headquarters (i.e., location of command and control to facilitate the movement of the army); and

6. A survey and report of all explosives that would be needed to fulfill the priority of destruction while conducting the withdrawal. How many mines would be required in the defense?¹¹

Before continuing with the content of the *Army Group* study for Operation Blue, it is important to understand the task analysis of the executive summary from the German perspective. This executive summary was designed to focus the efforts of subordinate commands and the headquarters on the problem of withdrawing the *Army Group* in the time and space determined by the enemy and the terrain. What the commander of *Army Group North* was asking the subordinate elements to do was create an engagement location in its area of operations to facilitate the tactical-level destruction of Soviet forces. By gaining efficiencies in manpower through the use of terrain in coordinated defensive positions, the Germans could form a reserve for the purposes of counterattack. This was an option *Army Groups* on the eastern front had not had for some time.¹² Summarily, the subsequent study for Operation Blue should be looked at as a mechanism to bring *Army Group North* back into line with the established doctrinal defensive technique—the elastic defense.¹³ While the German strategic leadership contributed to the problems of the operational-level commanders, the operational level facilitated the success of the tactical level by creating engagement areas through choke points, thus allowing German forces local superiority of numbers with a counterattack force to deal with the coming massive Soviet attack out of Leningrad. This study readily recognized that the coming frustrations of a Soviet attack could be brought around by decisive tactical action, but the Germans' lack of strategic synergy of efforts hindered their defensive execution.

Even with the Soviet High Command (*Stavka*) perturbed about the lack of speed associated with the Soviet attack after the breakout, the mere size of the Soviet attack overwhelmed German defenses. Perhaps a point that frustrated the Soviets even more was that no matter how many massed forces they introduced against the Germans, their forces were unable to totally break the Germans. This seems to acknowledge that the Germans executed Operation Blue with disciplined command and control. The Germans knew the reality of the situation—they were going to be significantly outnumbered, but as long as they could continue to trade space for time, the Germans would continue to strengthen their position as they were reducing the length of their lines of operation and communication as they moved west toward Estonia. It should be noted that the Germans planned for the main engagement area to be 25 kilometers (km) from the Narva River or the Panther Line, with the engineer en-

¹¹ Records of German Field Commands, frame number 7099658.

¹² See Maj Timothy A. Wray, *Standing Fast: German Defensive Doctrine on the Eastern Front during the Second World War—Prewar to March 1943*, Research Survey No. 5 (Leavenworth, KS: Combat Studies Institute, 1983).

¹³ *Study of Tactics Employed in the Russian Campaign*, P-082 (Carlisle, PA: Foreign Military Studies Department, Army War College, 1950).

gement area being built 40 km from the river.¹⁴ Thus, the Luga River in terms of an obstacle supporting a German engagement area was positioned, according to German defense in depth doctrine, at the outer edge of the main battle area. The Germans did not concern themselves with the possibility of Soviet amphibious operations, as they believed they had control of the Baltic Sea. The Soviets recognized the German plan and intended to counter by breaking the *18th Army* before it could reach the Luga River. Then, the Soviets could seek an operational pause. The Soviets believed if this occurred, the Germans would neither have the combat power to conduct operations in their main battle area nor would they be able to cohesively defend the Panther Line at the Narva River. This concept recognized the first Soviet campaign goal, to crush *18th Army*, and it paved the way for the Soviets to “liberate” the Baltic region, starting with Estonia.¹⁵

While the Germans continued a desperate struggle against incredible odds on all fronts, on 21 January 1944, the Leningrad and Volkhov fronts continued their offensive operations against Field Marshal Georg von Kuechler’s *Army Group North*. Kuechler saw a need for more freedom of action, but knew he did not have the authority to grant it to tactical formations without Hitler’s approval.

That day, Kuechler flew to the führer’s headquarters to demand some freedom of maneuver from Hitler. Early the next morning, Kuechler informed Hitler that Krasnogvardeysky (Russia) would fall unless Hitler permitted him to abandon Pushkin (Russia) and Slutsk (Belarus). Hitler categorically rejected Kuechler’s pleas, stating that “I am against all withdrawals. We will have crises wherever we are. There is no guarantee we will not be broken through on the Panther line. If we go back voluntarily, he [the Russians] will not get there with only half of his forces. He must bleed himself white on the way. The battle must be fought as far as possible from the German border.”¹⁶ The German strategic hand of interference restricted the essence of Operation Blue as a plan to execute the withdrawal in accordance with doctrinal considerations, thus increasing the possibilities for Soviet tactical amphibious operations.

On 31 January 1944, troops of the Soviet 2d Shock Army broke through the line at the Luga River against fierce German resistance. Pressing forward, the Soviets reached the Narva River on 3 February and began river crossing operations to establish bridgeheads on the western bank. General A. M. Andreev’s 43d Rifle Corps of General Ivan I. Fediuninsky’s army seized two bridgeheads across the Narva River on the army’s right flank north of the city of Narva on 1 February. Two days later, General Panteleimon A. Zaitsev’s 122d Rifle Corps seized two additional bridgeheads south of the city.¹⁷ General Leonid A. Govorov’s plan for the front was to have General Fe-

¹⁴ Records of German Field Commands, first Frame 7099655. See the graphic depictions found in the maps and overlays attached to the study.

¹⁵ *История второй мировой войны 1939–1945*, 20–21.

¹⁶ David M. Glantz, *The Battle for Leningrad, 1941–1944* (Lawrence: University Press of Kansas, 2002), 351.

¹⁷ Glantz, *The Battle for Leningrad, 1941–1944*, 373.

diuninsky's 2d Shock Army conduct a double envelopment of the city of Narva.¹⁸ The two areas the Soviets picked in the north were those of Riigiküla and Siivertsi (both Estonia), which were selected because they were the narrowest points of the Narva River in the north and they offered the best lines of communication to continue the assault once forces arrived on the west bank (figures 46 and 47). General Fediuninsky, the commander of Soviet 2d Shock Army, later recalled these operations of late January in his memoirs: "Desperate battles were fought until mid-February."¹⁹ Fediuninsky continued to develop his understanding of the situation as his forces attacked German positions along the Narva River in early February 1944. He spent considerable time along the Narva gaining excellent tactical situational understanding for the problem he was tasked with solving. He considered alternative solutions and tried to rationalize if the small gains he was making justified the losses in casualties. He eventually became "convinced that to force a crossing over the river and to take the city of Narva should be done from another direction where the enemy did not expect it. On the present bridgehead, it was difficult to concentrate enough troops secretly and thus the striking power would not be enough to overwhelm the enemy."²⁰ This would open the discussion for potential Soviet amphibious operations.

In the end, Soviet northern bridgeheads were frustrated by continuous German indirect fires and counterattacks, including the use of rare fresh reserves. Similarly, bridgeheads to the south were stymied, in part because the terrain was too open to provide cover, and the Soviet main effort failed to gain ground.

Stavka took notice.²¹ By 14 February, Stavka expressed its displeasure with the failed efforts to capture Narva and issued the following message to Govorov:

It is mandatory that our forces seize Narva no later than 17 February 1944. This is required both for military as well as political reasons. It is the most important thing right now. I demand that you undertake all necessary measures to liberate Narva.
[signed] I. Stalin²²

While Narva was under attack, the Soviets also continued their attack toward the city of Luga. Stavka devised a way to fix what they thought were the initial command and control issues of executing the attack. After the liberation of Luga on 12 February 1944, "STAVKA immediately reorganized its forces for a subsequent advance toward

¹⁸ Felix Steiner confirms this when he states, "The commander of the Leningrad Front, Army General Govorov, apparently had the intention of taking the Narva defenses through use of a double envelopment attack out of the shoulders." See Felix Steiner, *Die Freiwilligen Idee und Opfergang* (Göttingen, Germany: Plesse Verlag, 1958), 254.

¹⁹ I. I. Fediuninsky, *Поднятые Потрвоже* (Raised by an Alarm) (Moscow, USSR: Military Publishing, 1964), 184.

²⁰ Fediuninsky, *Поднятые Потрвоже*, 192.

²¹ Steiner, *Die Freiwilligen Idee und Opfergang*.

²² Glantz, *The Battle for Leningrad, 1941-1944*, 375.

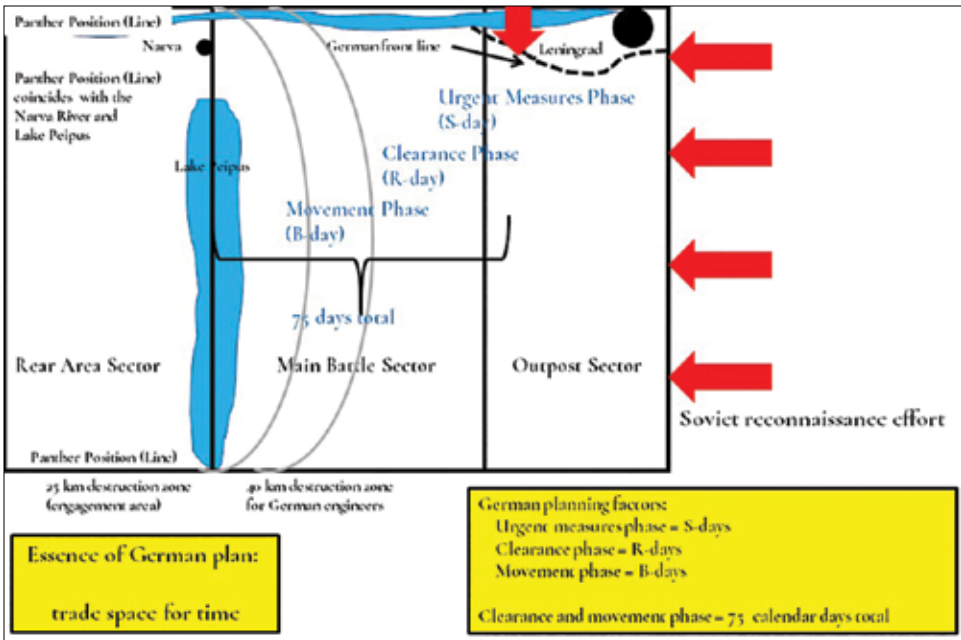


FIGURE 46
Narva River crossing points for Soviet 2d Shock Army.
Author's 1:50,000 map

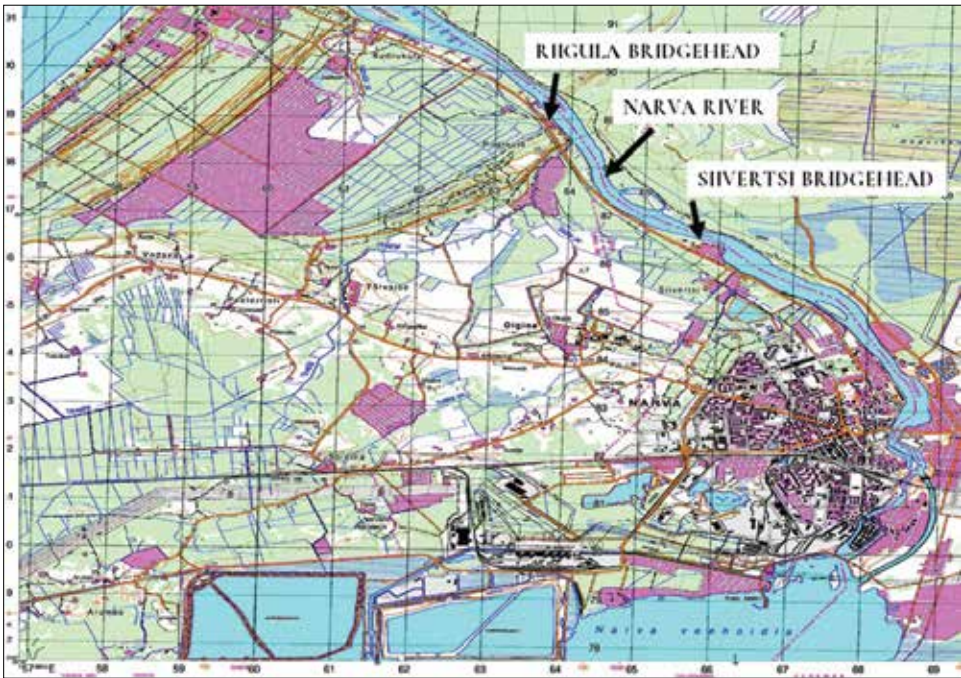


FIGURE 47
German map of Merkula landing site.
Estonian Defence College Archives

Pskov and Ostrov. At 24.00 hours on February 13th it dissolved [General Kirill A.] Meretskov's Volkhov Front, transferring the 59th, 8th, and 54th Armies and their offensive sectors, the 65th and 310th Rifle Divisions in the front's reserve, and the 14th Air Army to the Leningrad Front effective February 15th.²³ While this may have appeared to make Govorov's task easier, based on the principle of unity of command under the Leningrad Front only, the space being covered was too great for effective command and control. Two days later on 17 February, Field Marshal Walter Model, Commander of Army Group North, "began implementing his order to withdraw his forces back to the Panther Line by 1 March."²⁴ Once Govorov received more forces and a better understanding of the situation, he reworked his plan in reaction to Model's actions. Govorov sent another plan to Stavka for approval that took into consideration the sum of all changes of the situation. The plan was submitted on 17 February and created the conditions for the Soviets to recognize their second operational campaign plan goal of liberating the Baltic states. It acts as the direct link between the tactical means available and the desired strategic end state. Glantz states

[Govorov's] concept recommended that two mutually supporting columns conduct the offensive toward Pskov and Ostrov. . . . Govorov's plan required Fediununsky's 2d Shock Army to capture Narva, penetrate German defenses between the Narva Bay and Lake Chud (Peipus), and make its main attack southwest toward Parnu to destroy the newly reformed Eighteenth Army in Estonia and capture Tallinn (Reval).²⁵

On 22 February 1944, Govorov received a response from Stavka approving the plan he had submitted just days earlier. He had been ordered to accelerate his planned offensive.²⁶

On the German side of the lines, the Soviet offensive threatened the last German phase line, labeled "D" on the plan graphic. The total length of this position, called the Panther Line, amounted to 425 km, of which 215 km were "land fronts" and 210 km "lake fronts."²⁷ The German tactical withdrawal freed up "very substantial elements of the forces" previously employed along the front line.²⁸

The withdrawal was a concerted effort to pair the needs of the task against the terrain to create an economy of force mission for 18th Army while also creating an operational reserve to be employed perceivably as a counterattack force. This was again another attempt on the part of German operational- and tactical-level leaders to fight Hitler's dictum to not give the Soviets ground by using doctrinal considerations of

²³ Glantz, *The Battle for Leningrad, 1941-1944*, 388.

²⁴ Glantz, *The Battle for Leningrad, 1941-1944*, 388.

²⁵ Glantz, *The Battle for Leningrad, 1941-1944*, 389.

²⁶ As quoted in Glantz, *The Battle for Leningrad, 1941-1944*, 391-92.

²⁷ *The Retrograde Defensive of Army Group North during 1944*, P-035 (Carlisle, PA: Foreign Military Studies Department, Army War College, 1950), 71.

²⁸ *The Retrograde Defensive of Army Group North during 1944*, 71-72.

defensive employment as a reason to not only retrograde forces to the Panther Line, but to counterattack with a prepared force.

The Panther Line was a formidable obstacle based largely along the Narva River. Two strong points, one in the vicinity of Ivangorod, Russia, with substrongholds in Russia's Popovka, Lilienbach, and Dolgaya Niva, and another 20 km southwest from Ivangorod and included the villages of Krivaso, Dolgaya Niva, and Pustoi Konets in Estonia, were well-fortified and supported by artillery to the west.²⁹ Given the need to accelerate the Soviet attack, the use of amphibious operations had to be examined by Soviet leadership to gain access to the German rear areas to attempt to break the Panther Line.³⁰

By mid-February, with opportunities along the front fading quickly and forces stuck on the Panther Line, the Soviets attempted an amphibious operation in the area of Merküla, Estonia. Soviet Rear Admiral U. V. Ladinski's memoirs provide interesting commentary on the event.³¹ In *The Watch of War*, Ladinski describes all aspects of the operation from how the operation was conceived to thoughts about why it failed. The Soviet Navy's "most urgent task . . . was to assist the seashore flank of army."³² Ladinski recalled the rapid decision to launch an amphibious operation by the Soviet naval high command. With one day's notice, Ladinski was to take over gunboats from Commander Skerries, who was to land the submachine gun battalion of the 260th Detached Marine Brigade.³³ Ladinski lacked adequate time to prepare or train his forces.

Before the details were provided to Admiral Ladinski by the chief of staff, the Soviets issued some important operational planning guidance that would prove to have catastrophic effects on the operation. Ladinski recalls that "the battalion was not being provided as a means of reinforcement, this meant the battalion going ashore would join the attacking troops (already on the offensive from the bridgeheads) on the same day. Their actions before this point had to be ensured by the fleet with naval gun fire support."³⁴ However, to preserve the element of surprise, the decision was made not to use naval gunfire support for the landing.

The landing was planned for the village of Merküla. Merküla was a "fishing village with 30 houses and two churches," and it served as the command post for the German *Gruppe Berlin*.³⁵ The Soviets knew little of the terrain or defenses present and there was no time to conduct reconnaissance; thus, they relied on 20-year-old maps for planning

²⁹ E. P. Krivosheev and N. F. Kostin, *Битва за Нарву, Февраль–Сентябрь 1944 года* (Fight as I Shall Dig, February–September 1944) (Tallinn, Estonia: Eesti Raamat, 1984), 13. Swedish bastions refer to left-over fortifications from the Second Northern War (1700–21) used again during World War II.

³⁰ Map was courtesy Capt Punga of the Estonian Defense School in Tartu, Estonia.

³¹ U. V. Ladinski, *Военная Вахта* (The Watch of War) (Moscow, Russia: Military Publishing, 1983). Ladinski was the naval operation's chief of staff.

³² Ladinski, *Военная Вахта*, 183.

³³ Ladinski, *Военная Вахта*, 183.

³⁴ Ladinski, *Военная Вахта*, 184.

³⁵ Wilhelm Tieke, *Tragedy of the Faithful: A History of the III. (germanisches) SS-Panzer Korps* (Manitoba, Canada: J. J. Fedorowicz Publishing, 2001), 62.

the operation. The maps' information had not been confirmed since the Estonian War of Independence (1918–20). The landing was to be commanded by Rear Admiral G. V. Zhukov.³⁶ The subordinate commanders for the landing were Major S. P. Maslov, the battalion commander for the landing force from the 260th Detached Marine Brigade, while the naval shipping and support force was under the command of Captain First Rank S. V. Kudrjajtsev.³⁷ There was an rather apparent lack of communication and coordination between the commander of the landing force and the commander of the amphibious force that neither the benefits of time nor rehearsal had an opportunity to remedy. *Fight as I Shall Dig* explains that the order to execute the landing was sent on 13 February at 1305 with orders to execute the landing the next day. By 1530, the landing force was embarked on the ships, none of which were specifically designed for amphibious operations.³⁸ The Soviet landing force then moved out for the landing site at Merküla with minesweepers in the lead.

At 0400 on the morning of 14 February 1944, the submachine gunners loaded onto landing craft and headed for the shore near Merküla. By 0430, there was no resistance as troops went ashore. The assault force's main body of 250–300 Marines was led by Major S. Maslov. Their task was to attack German positions around Merküla and “consolidate with units of 2nd Shock Army attacking from the south.”³⁹ The initial unopposed landing quickly turned bloody as German defenses came to life.⁴⁰

This sector of Merküla was controlled by an understrength *Marine Battalion Hohnschild*, a group of German auxiliary sailors.⁴¹ The German defenders also consisted of an Estonian police battalion responsible for defending the coastline from Mummassaare to Merküla. They were supported by a naval coastal artillery battalion whose 10cm/65 Type 98 guns were hidden in the dunes nearby.⁴² Once the Germans gained control of the situation, “twelve [Junkers Ju 87] Stukas showed up at the same time.”⁴³ Eventually by 0900 that morning, an armored platoon with infantry under the command of SS *Sturmabführer* (Major) Kurt Engelhardt counterattacked from the southwest. By 1000, the landing had been crushed with 300 Soviet Marines dead and 200 more captured.⁴⁴

The Soviet sailors and Marines fought bravely, as Ladinski recalled in his memoir. Singling out the crew of the armored *BMO-505* personnel carrier, commanded by First Lieutenant V. B. Lozinski, Ladinski praised the crew's fire support, which was limited to machine guns and the boat's automatic cannon: “They then removed Ma-

³⁶ Tieke, *Tragedy of the Faithful*, 62.

³⁷ Tieke, *Tragedy of the Faithful*, 63.

³⁸ Krivosheev and Kostin, *Битва за Нарву*, 47.

³⁹ Krivosheev and Kostin, *Битва за Нарву*, 53.

⁴⁰ Ladinski, *Военная Вахта*, 185.

⁴¹ Ladinski, *Военная Вахта*, 185.

⁴² Tieke, *Tragedy of the Faithful*, 62. The 227th Infantry Division staff under the command of Generalleutnant Berlin comprised *Kampfgruppe Berlin* or *Group Berlin*.

⁴³ Tieke, *Tragedy of the Faithful*, 63.

⁴⁴ Tieke, *Tragedy of the Faithful*, 64.

rines from damaged launches against shells and bullets. When the launch commander was killed, Second Lieutenant M. E. Rokin then took charge. Overcoming pain of a wound, he led the launch to the coast, landed a second group of sub-machine-gunners and moved away.” The crews of *BMO-509* and *MBKA-562* were also singled out for bravery.⁴⁵ Despite these heroics, only three marines managed to reach friendly troops after the landing force was smashed on the beachhead: Lieutenant A. Lubimov, Junior Sergeant I. Metcush, and Sergeant G. Semenkin.⁴⁶

LESSONS OBSERVED

The Soviet landing at Merküla offers several lessons for amphibious planners, many of which were already well known to the Western Allies after conducting multiple landings in the European and Pacific theaters. Some of the lessons Ladinski observed of the amphibious attempt at Merküla were centered around the lack of support for the operation, both tactically in the local area of the operation, as well as collectively as an operational-level attempt to break the German hold on the Narva area.

Lesson 1. An examination of the terrain where the landing occurred demonstrates that the Germans did not need to expend much energy to make the Soviet landing a disaster. On average, the water’s edge was about 100 meters from German positions. The German positions rested neatly on top of a cliff 40–50 meters above the waterline of the beach. German guns were aimed straight down the beach, without supporting fires from naval guns to make the transition from ship to shore. Retrospectively, it is amazing anyone survived to reach the beach. In the end, Author Wilhelm Tieke recalled that “the Soviets who had landed repeatedly charged the steep slope to eliminate the battery. Hundreds were killed on the steep, heavily vegetated slope with its multiple barbwire entanglements.”⁴⁷ Reconnaissance conducted during a proper planning cycle would have identified the terrain problems present at Merküla. Additionally, it might have located the German defenders, allowing for their targeting or avoidance.

Lesson 2. Parallel planning: in *Tragedy of the Faithful*, Tieke examined the *III SS Panzer Corps*’ action in detail and fully appreciated that the Merküla operation was conducted in conjunction with operations in the northern and southern bridgeheads (see figure 47).⁴⁸ The Soviets were unable to capitalize on confusion in the German rear and exploit the fluid situation to their advantage. Amphibious operations in broad daylight are difficult enough for a well-rehearsed force; the level of difficulty required for a nighttime assault was clearly beyond the capability of the force conducting the operation.

Lesson 3. Fire support: the Soviets’ desire for surprise resulted in a lack of fire

⁴⁵ Ladinski, *Военная Вахта*, 185.

⁴⁶ Krivosheev and Kostin, *Битва за Нарву*, 53.

⁴⁷ Tieke, *Tragedy of the Faithful*, 62.

⁴⁸ Tieke, *Tragedy of the Faithful*, 62.

support being available for the landing party. Any amount of fragmentation and obscuration shells could have helped the Soviets gain a foothold by suppressing weak German forces in the area. Similarly, a lack of Soviet air cover allowed German dive bombers to operate freely over the landing area. The Soviets could have challenged the German Air Force in the area of the beach landing and could have bought the landing the precious time required to make the transition from ship to shore.

CONCLUSION

Amphibious operations require close coordination of forces assigned to the air, land, and sea. The effects of an amphibious landing must coincide with the actions taking place ashore to be effective and operations must be rehearsed at all echelons. These tenets were not observed by the Soviets. It is also helpful when a force has an amphibious culture, a tie between the landing force and the navy; the Soviets never had such a culture. The situation was best summarized by Ladinski:

*The landing action should have been coordinated with land forces at-
tack. That morning the attack was undertaken without any success. At
this point, help couldn't have come to the Marines. Later after returning
to Leningrad, I talked to those who landed and had managed to reach
our troops through the front line. They told me after landing on the coast,
they met superior forces and powerful fire. To move forward was impossi-
ble. Then, the battalion commander ordered the Marines to break through
the Auvere [Estonia] station in small groups, where it was planned for
them to meet attacking troops.⁴⁹*

While attacking at Merküla made perfect tactical sense to find the open flank of the Panther Line, the Soviet forces conducting the attack were not properly enabled to succeed, thus making the opportunity presented by Merküla nothing more than an operational diversion to be dealt with harshly at the water's edge by the Germans.

⁴⁹ Ladinski, *Военная Вахта*, 185.

CHAPTER FIFTEEN

Learning the Lessons of Port-en-Bessin, 1944

John D. Salt

INTRODUCTION

The Normandy landings (Operation Neptune) of World War II probably constitute the best-known and most-studied amphibious operation in history. Because the operation is so well known, this chapter is not intended to describe the overall operation; rather, it will describe a remarkable action, vitally important for the success of the invasion, which remains surprisingly little-explored.

Having described the action, this chapter will then evaluate it in terms of the combat functions listed in *Joint Operations*, Joint Publication (JP) 3-0. Finally, it considers how the action supports or refutes a number of current ideas in combat analysis, including patterns of combat, mechanisms of defeat, and the 3:1 rule, concluding with a reflection on troop quality and leadership.

THE LOGISTIC AIM

Mechanized operations depend critically on the supply of motor fuel, and during World War II, this included both gasoline and diesel. The logistics infrastructure planned to support the Normandy invasion included two Mulberry artificial harbors

for shipping, and much fuel would initially be landed in jerry cans.¹ The plan called for two pipelines to be laid across the channel, coming ashore at Cherbourg and Boulogne. These were known as PLUTO (pipeline underwater transportation of oil, popularly known as pipeline under the ocean). The line to Cherbourg was codenamed Bambi and that to Cherbourg Dumbo. While waiting for Bambi and Dumbo to be completed, which depended on the capture of Cherbourg and Boulogne, an interim stage was to be provided by Tombola, a system of short pipelines for the transfer of fuel from tankers moored offshore. Port-en-Bessin was chosen as the port at which the first Tombola pipes were to be installed, while a second set were to come ashore at Sainte-Honorine-des-Pertes, about three kilometers (km) farther along the coast to the west. While the Mulberries (A and B) would relieve the Allies of the need to capture a major port in the initial assault, the capture of Port-en-Bessin was a vital part of the logistics plan until PLUTO could be set up.²

47 (ROYAL MARINE) COMMANDO

Seizing Port-en-Bessin was assigned to 47 (Royal Marine) Commando, part of 4 Special Service (SS) Brigade. It was formed at the Depot Barracks, Dorchester, from 10th Battalion Royal Marines on 1 August 1943. On 5 August, it was taken over by Captain (acting lieutenant colonel) Cecil Farndale Phillips, who was to command the unit until 30 December 1945. The unit reorganized as a Commando and was brought up to Commando standards. Some 50 percent of the original personnel were washed out based on physical fitness or their disciplinary record, and replacements were absorbed. The unit passed through the Commando Depot, Achnacarry, Scotland, where the troops earned their green berets, and conducted boat and weapons training at the Commando Training Centre, Dorlin. While at Achnacarry, a small detachment of 2 officers and 30 enlisted, designated Eightsome then Timberforce and finally K Detachment, made a couple of inconclusive raiding operations on the Norwegian coast. Apart from this, the Commandos had seen no action when it embarked at Southampton for Normandy on 2 June. The basic organization of the Commando is shown in figure 48.³

THE PORT AND ITS DEFENSES

Port-en-Bessin is a small fishing port on the north coast of Calvados, France, 10 km northwest of Bayeux. The town lies between two chalk cliffs—Castel to the east and

¹ The term *jerry can* refers to a container made from pressed steel designed in Germany in the 1930s for military use to hold 20 liters or equivalent to 5.3 gallons of fuel.

² Tim Whittle, "Pigs, Pipelines and PLUTO: A History of the United Kingdom's Largest Oil Pipeline and Storage System during World War Two," *Measurement and Control* 46, no. 7 (2013): 199–204, <https://doi.org/10.1177%2F0020294013499112>.

³ Commando War Establishment, W/E VIII/527/1, in War Establishment: Infantry and Commando Units, WO 204/8397, National Archives, Richmond, UK; and "Brief History of 47 (RM) Commando" (unpublished manuscript, Royal Marines Museum, Portsmouth, UK), 3–24.

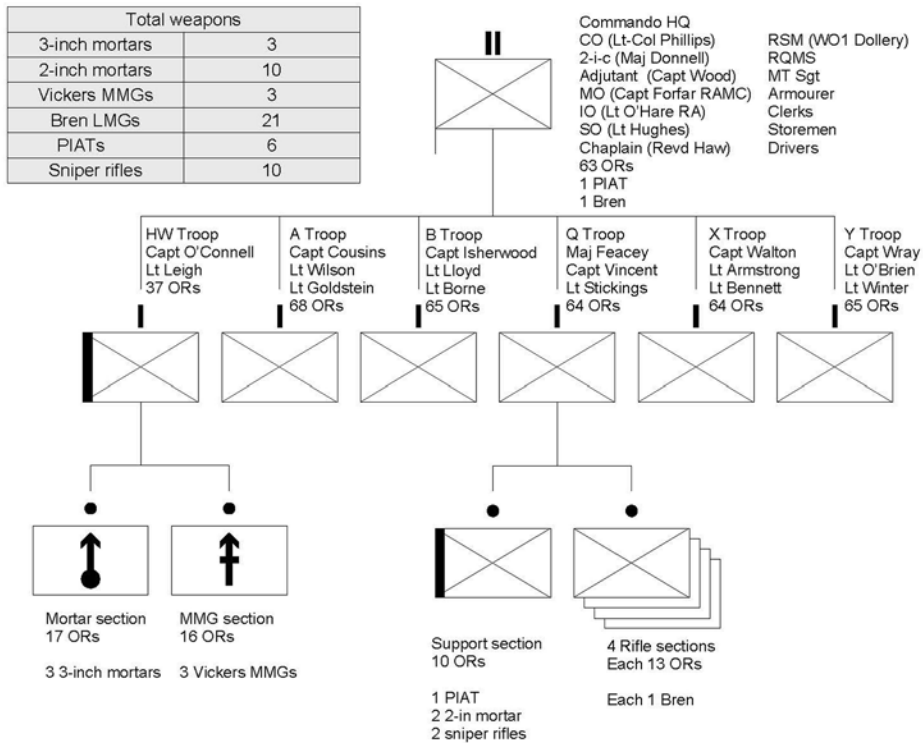


FIGURE 48
 Outline organization of 47 (Royal Marine) Commando.
Courtesy of the author

Huppain to the west—which form a natural harbor, augmented by two artificial moles. The rocky coastline makes this an important safe haven.⁴

The German garrison of Port-en-Bessin on 6 June 1944 (D-Day) was *1st Company, I Battalion, 726th Grenadier Regiment* of the *716th Infantry Division*.⁵ This unit was raised on 2 May 1941 with a large component of Italian volunteers. The division was equipped partly with substitute standard captured weapons (the artillery was largely Czech, for example) and reinforced with three *Ostbattalionen* (East Battalion), but none of these took part in the Port-en-Bessin fighting.⁶ The *7th Army's* chief of staff, *Generalleutnant* Max-Josef Pemsel, assessed it as well-trained for defense and familiar with its sector, although training time was reduced by the need for labor on the At-

⁴ Phillipe Oblet, *L'Histoire de Port-en-Bessin, Port de Bayeux, de l'Epoque Celtique à 1971* (Port-en-Bessin, France: self-published, 1978), 27-28.

⁵ Tim Saunders, *Commandos and Rangers: D-Day Operations* (Barnsley, UK: Pen and Sword, 2002), 117.

⁶ Niklas Zetterling, *Normandy, 1944: German Military Organization, Combat Power and Organizational Effectiveness* (Winnipeg, Canada: J. J. Fedorowicz Publishing, 2010), 297-300.

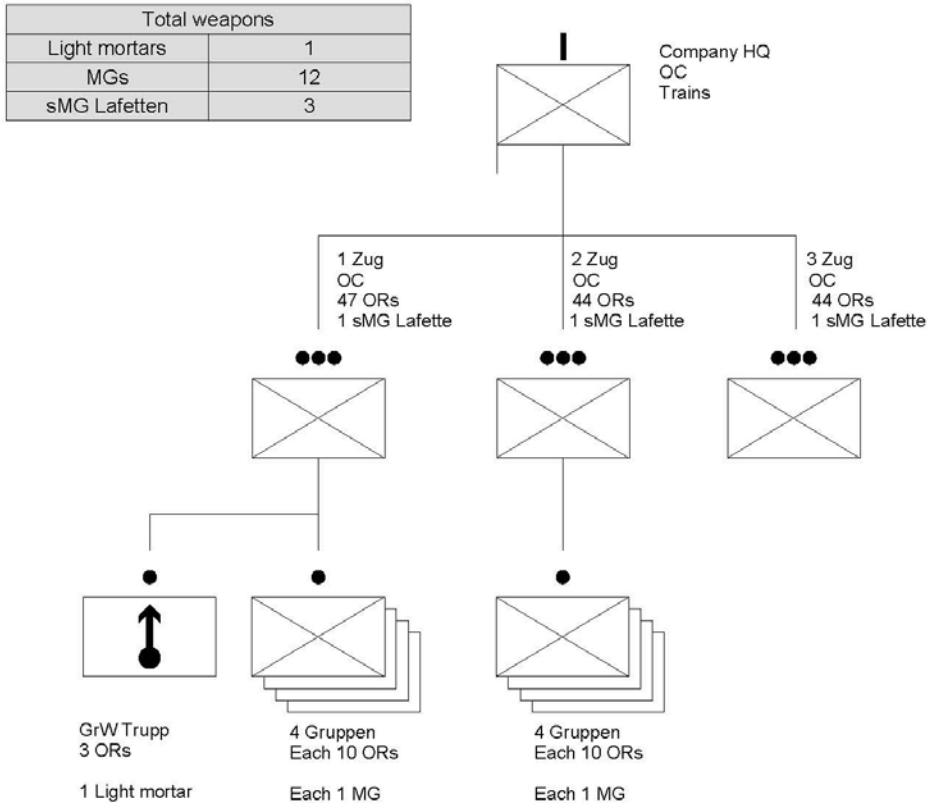


FIGURE 49
Outline organization of 15th wave Schutzkompanie.
Courtesy of the author

lantic Wall.⁷ It saw no action before 6 June, when it was under the operational control of 352d Infantry Division. The official organization is given in figure 49.⁸ There were also some 50 *Kriegsmarine* personnel in the port.⁹

The defenses of Port-en-Bessin comprised four strongpoints, or resistance nests (*Widerstandsnest*). One strongpoint was located in the town, one to the south, and one on each of the cliffs overlooking the port (figures 50 and 51).¹⁰

Widerstandsnest (Wn) 56, covering seaward access, was armed with two 4.7cm guns

⁷ David C. Isby, ed., *Fighting the Invasion: The German Army at D-Day* (New York: Skyhorse Publishing, 2016), 67–68.

⁸ Leo W. G. Niehorster, comp., “German WWII Organizational Series, vol. 3/V, Military Government, Security, and Provost Marshal Forces; Prisoner-of-War Administration, 22 June 1941,” World War II Armed Forces—Orders of Battle and Organizations (website), 2010, 34.

⁹ Tim Saunders, *Gold Beach—Jig Sector and West, June 1944* (Barnsley, UK: Pen and Sword, 2002), 143.

¹⁰ Saunders, *Commandos and Rangers*, 123.

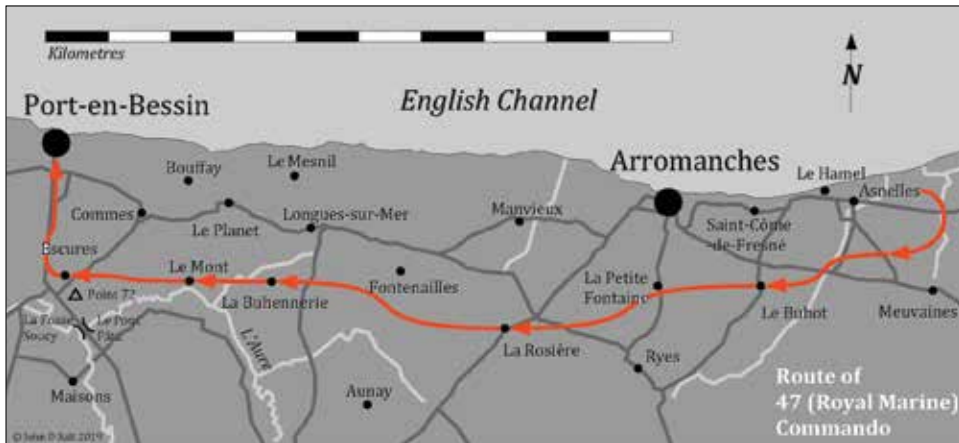


FIGURE 50
 Approach (red arrows) to battle.
 Courtesy of the author, adapted by MCUIP

and a 2cm flak cannon. Storey-high concrete obstacles blocked vehicular access inland, and fixed flamethrowers faced seaward.¹¹ *Wn 55*, on the Castel cliff east of the town, contained weapon pits and concrete bunkers protected by mines and wire. *Wn 57* stood on Huppain cliff with a 4.7cm gun and more entrenchments protected by mines and wire. *Wn 58*, with a Belgian 7.5cm field gun in a concrete emplacement and a number of weapon pits, overlooked the town from the southwest.

Evacuation of the townspeople had been proposed in 1941 and 1944, but had never taken place. Unknown to the invasion planners, the civil population were still in residence on D-Day, when 24 Consolidated B-24 Liberators of 785th Bombardment Squadron, 466th Bombardment Group, were dispatched from Royal Air Force station Attlebridge to bomb Port-en-Bessin on D-Day morning but missed their mark.¹² The naval bombardment caused damage and casualties, including five killed. Mother Superior de Beaucourt and Sister Marie, from the town's small community of nuns, disregarded the danger to tend the wounded and guide others to shelter.¹³

¹¹ John Forfar, "D-Day, 47 Commando Royal Marines: Port-en-Bessin, Battle for the Oil Port," in *Amphibious Assault: Manoeuvre from the Sea*, ed. Tristan Lovering (Woodbridge, UK: Seafarer Books, 2007), 312.

¹² Stephen Allen Bourque, *Beyond the Beach: The Allied War against France* (Annapolis, MD: Naval Institute Press, 2018), 218, mentions this raid and claims that 25 Portais (citizens) were killed as a result. Oblet's firsthand account makes no mention of any such raid, and inscriptions on the Port-en-Bessin memorial together with entries in the University of Caen's database of civil victims indicate that five Portais were killed on D-Day.

¹³ Oblet, *L'Histoire de Port-en-Bessin*, 116–17.

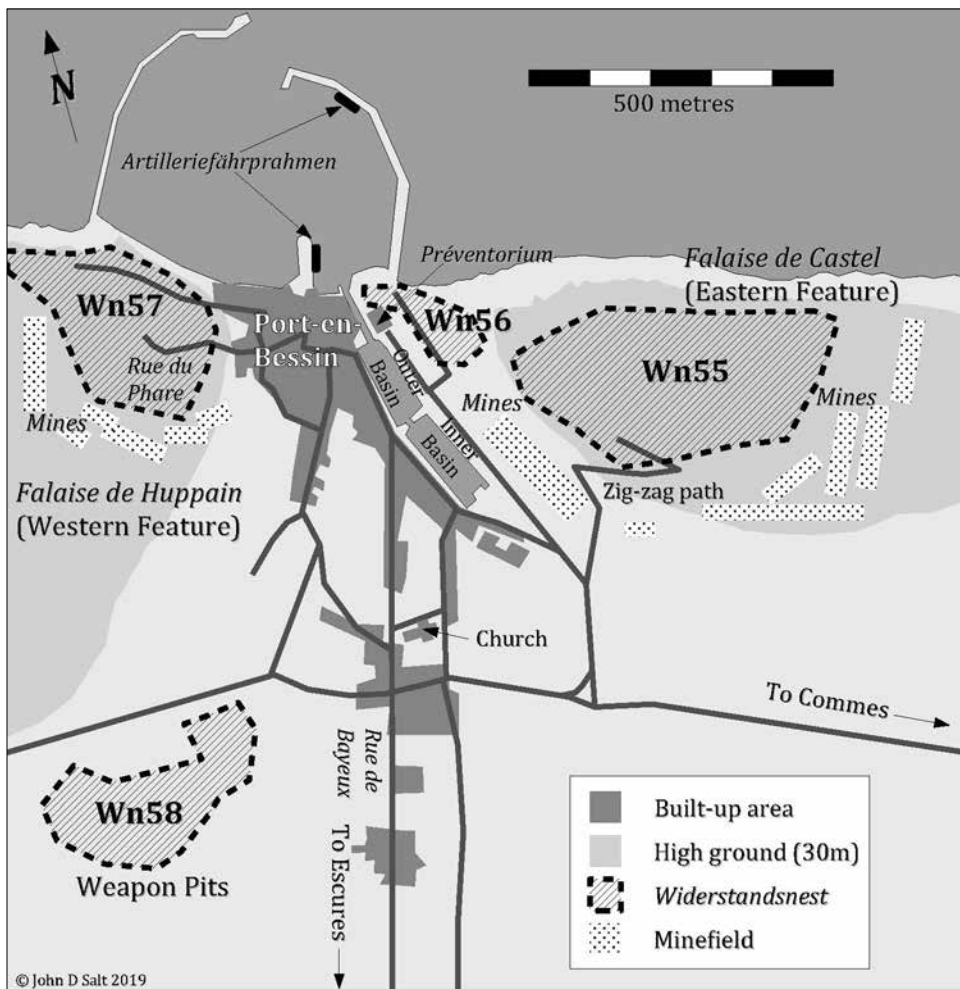


FIGURE 51
 Sketch map of Port-en-Bessin.
 Courtesy of the author

LANDING ON GOLD

47 Commando landed from HMS *Princess Josephine Charlotte* (LSI 4238) with 8 landing craft, assault (LCA), from the 502d Assault Flotilla, and SS *Victoria* (1907) with 6 LCAs from the 508th Assault Flotilla, starting their run-in on schedule at 0800. The plan called for an unopposed dry landing at 0830 (H+2) behind the assault battalions of 50th (Tyne-Tees) Infantry Division, undertaking their third amphibious landing of

the war, in landing area Gold.¹⁴ From there, 47 Commando was to head 12 km west toward the American beaches to attack Port-en-Bessin from landward.

The Commando was instead forced to land east of its intended beach, under fire from 75mm and 150mm coastal guns, among mined obstacles. Four or 5 of the 14 LCAs were sunk running in; only 2 returned to the landing ships. Twenty-eight marines were killed, including Q Troop's Major James R. Feacey, and 21 were wounded; many abandoned their 40 kg of gear to swim ashore. Wading ashore under machine-gun fire, one Marine was heard to say: "Perhaps we're intruding. This seems to be a private beach." One of the few to make it ashore dry was Reverend Reginald Haw, the padre. He claimed that, as this was his baptism of fire, other baptismal duties were not to be expected.¹⁵

By 1015, the Commando was ashore behind the Hampshires, ready to move off to its first rendezvous at Le Hamel; but Le Hamel was still in enemy hands, and 47 Commando in a parlous state. Five officers (Major Feacey, Captain Wood, Captain Wray, Lieutenant Winter, and the commanding officer) were missing, as were 73 marines. A Troop had lost most of its weapons; B and X Troops were more or less dry and equipped; Q and T Troops had lost a complete LCA each; and HW Troop was reduced to a single Vickers machine gun and a solitary 3-inch mortar, which was missing its sight. Headquarters Troop's radios were giving them trouble.

THE APPROACH MARCH

By 1100, most of the Commando was assembled. The liaison officer from 2d Devons, Lieutenant Spencer, made contact, and the brigade commander suggested an alternate route to the assembly area at La Rosière (see figure 50). Troops lacking weapons, ammunition, equipment, boots, and clothing scrounged them from friendly and enemy dead and from other units on the beach. Brigade headquarters lent a radio, and after an Orders (O) Group from the second in command, Major Patrick M. Donnell, 47 Commando set off cautiously, X Troop leading, followed in order by B, HQ, Q, A, Y, and Heavy Weapons. They were mortared on the Meuvaines-Buhot road, and Royal Marine John Lumsden of Q Troop was killed by a sniper. One piece of luck: the commanding officer rejoined the Commando.¹⁶ After an overambitious personal reconnaissance toward Le Hamel, he got through the town, which was still occupied by the enemy, riding an ammunition sledge towed by a self-propelled gun. Another welcome addition was a party of four carriers from 50th Division's Reconnaissance Regiment, carrying ammunition.

¹⁴ Saunders, *Commandos and Rangers*, 106.

¹⁵ Saunders, *Commandos and Rangers*, 112-13.

¹⁶ "Brief History of 47 (RM) Commando," 8.

A series of small encounters took place en route. The Commando stalked an observation post, killing one soldier and capturing two for no loss. Next, the Commando met a German officer on horseback; the officer was shot dead, leaving the horse unharmed. A third encounter was with a jeep, presumably a *Kübelwagen*, whose driver chose to shoot it out with their machine gun until mortally wounded by a rifle grenade.¹⁷

At La Rosière, the Commando met more serious opposition. A Troop stalked and destroyed a German machine-gun post, and then X and B troops attacked—X through the village and B, followed by the rest of the Commando, round a flank. The fight netted 20 prisoners (handed over to 2d Devonshires), but cost the Commando 11 wounded, including 8 when a German machine gun caught Q Troop in single file.

By 1730, the Commando was in all-round defense at La Rosière. Captain Paul Spencer took over as adjutant in place of Captain J. P. W. Wood, wounded in the landing. More stragglers rejoined, additional weapons and ammunition had been captured, and a forward observation officer (FOO) from 147th Field Regiment, Royal Artillery, arrived to replace the FOO lost in the landing. The Commando was about six hours behind schedule.

After an O Group from the commanding officer, the Commando set off cross-country from La Rosière toward Point 72 (Mont Cavalier), a hill south of Port-en-Bessin from which the assault would be launched. More brushes with the enemy occurred. An unarmed *Stabsfeldwebel*, cycling to meet his girlfriend at the Ouistreham brothel, gave himself up at the first opportunity.¹⁸ A couple of violent exchanges occurred around La Buhennerie, after one of which a couple of dead Germans were found. No Commandos were lost. Near Commes, a party detached to cut a phone cable at the Château du Bosq found it abandoned by the Germans, and the cable already cut.¹⁹

Around dusk, the Commando reached the northwest slopes of Point 72, its intended jump-off point for the assault, apparently unoccupied. The Commandos prepared a meal from ration packs and dug defensive positions. B, Q, and X Troops took position along the crest from east to west, and at a cross-track on the Escures side at the foot of the hill. A German aid post was discovered in a dugout, two German medical officers (one army and one navy) and a couple of wounded taken prisoner. The Commando Regimental Aid Post (RAP) was established in the captured dugout.

¹⁷ John Forfar, *From Gold to Omaha: The Battle for Port-en-Bessin, 6–8 June 1944* (Port-en-Bessin, France: Les Gens du Phare, 2009), 38–40.

¹⁸ *Stabsfeldwebel* refers to the second-highest noncommissioned officer rank in the German Army and German Air Force. It is grouped as OR8 in NATO, equivalent to a first sergeant, master sergeant, or senior master sergeant in the U.S. armed forces and to warrant officer class 2 in the British Army and Royal Navy.

¹⁹ John Forfar, *From Omaha to the Scheldt: The Story of 47 Royal Marine Commando* (East Linton, UK: Tuckwell Press, 2001), 52.

Digging continued through the night, and the Royal Marines managed to get about two hours of sleep.

A NEW PLAN

The next morning, the Commando had yet to be detected, even after a small party of German soldiers reported to one of the medical bunkers for sick parade and was promptly taken prisoner. Commando patrols had been out, and though unable to make the planned contact with the Americans, they met a couple of local youths who gave information about German positions.

Unfortunately, revising their plan was delayed by inadequate communications—a single radio set was available, and 231st Brigade headquarters was not contacted until 1100. The original forward observer bombardment (FOB), Captain Howland, had been lost in the landing, so Major Marsh, the liaison FOB, took over the task of directing naval gunfire support.

Colonel Phillips gave his orders at 1350. His plan called for a naval bombardment, smoke from the 25-pounders of 431st Battery, 147th (Essex Yeomanry) Field Regiment, Royal Artillery, and a wing-strength air attack by rocket-firing Hawker Typhoon fighter-bombers. X Troop would attack the weapon pits while A and B Troops bypassed them and infiltrated the town. A Troop would then attack the western feature and B Troop the eastern feature. The badly depleted Q and Y Troops would remain in reserve in the region of Point 72, with headquarters. HW Troop would provide what support it could with its single remaining 3-inch mortar and Vickers gun.²⁰

Ammunition replenishment came from a group of four carriers under Lieutenant John Bennet, with two sections from the Devonshires' carrier platoon, and two 3-tonners from 522d Company, Royal Army Service Corps, under Captain Brian Lindon. Lindon received a Military Cross for his daring trip through enemy-occupied territory, when his trucks were struck several times by small-arms fire. They took back some 20 prisoners.²¹

The naval bombardment began just before 1400, with two landing craft, gun (large) or LCG(L)s, bombarding the waterfront. At 1500, HMS *Emerald* (D 66) began an FOB-controlled shoot with its 6-inch guns on the eastern feature. Some American landing craft, tank (rocket) or LCT(R)s, offered to engage from a neighboring sector, but were refused for fear of endangering friendly troops. On schedule at 1550, the first squadron of Typhoons from 2d Tactical Air Force rolled in, followed in rapid succession by two more squadrons, all making accurate attacks with rockets and 20mm cannon.²²

Having dumped their packs at Point 72, the assaulting troops advanced and

²⁰ "Brief History of 47 (RM) Commando," 10.

²¹ Saunders, *Commandos and Rangers*, 119.

²² "Brief History of 47 (RM) Commando," 11.

halted 400 yards short of the line of departure for the air attack. On their way to the line of departure, they came under fire from the south in the direction of La Fosse Soucy. The site is a curious geological feature where the rivers Aure and Drôme disappear underground, reaching the sea at the foot of the cliffs of Port-en-Bessin. It was also the location of the German 352d Division's sniper school and the Château de Maisons that housed the headquarters of I Battalion, 726th Infantry Regiment. Fire was exchanged and casualties suffered on both sides, but the troops continued into the planned assault.

The Commando's medical officer, John Forfar, moved up the main road from Escures to establish a new RAP. Coming up to the weapon pits (Wn 58), he noticed field gray-clad soldiers still occupying the position. Unknown to him, A and B Troops had bypassed it and pressed on. Luckily for Forfar, there was an outburst of yelling and shooting as Captain Dennis Walton led X Troop into the assault, bayonets fixed. Approaching within 200 yards of the weapon pits following the air strike, Walton attacked "two up, two back," his support section providing covering fire.²³ A German spotted outside the dugouts was called upon to surrender, and the defenders, an officer and 18 enlisted, filed out of the fieldworks with their hands up. Questioning by an attached member of 10 (Inter-Allied) Commando revealed that there were no additional enemy or booby traps. A search of the position revealed plentiful supplies of food, water, clothing, weapons, and ammunition. X Troop sent a report of their success, but it was never received.²⁴

Meanwhile, A Troop, passing though X Troop as they formed up, moved up to the edge of the town, taking casualties from mortar fire that left one Royal Marine killed and Regimental Sergeant Major E. C. Dollery wounded. A local *gendarme* (police officer), Henri Gouget, guided them into the center of town unopposed. For this and other exploits, Gendarme Gouget was later awarded the Croix de Guerre with palm.²⁵ Turning left at the church, A Troop passed around the western side of the port to a track at the foot of the Huppain cliff. The troop breached a wire obstacle with its solitary Bangalore torpedo, then moved up toward the cliff top.

B Troop, meanwhile, covered by 2-inch mortar smoke, progressed into the center of town as far as the inner basin. Here, they spotted a party of 10 Germans on the other side of the outer basin. An attached sergeant from 10 (Inter-Allied) Commando, Sergeant Eugene Fuller, an Austrian-born translator, called on them to surrender, which they did, as well as two more Germans who walked down from the eastern feature.²⁶

X Troop, having cleared the weapon pits, moved up behind A Troop on the west side of town. Very lights seen over the western feature were mistaken for success

²³ Forfar, *From Omaha to the Scheldt*, 67.

²⁴ "Brief History of 47 (RM) Commando," 14.

²⁵ Forfar, *From Gold to Omaha*, 79.

²⁶ Forfar, *From Omaha to the Scheldt*, 76.

signals and A Troop was believed to be in possession until X Troop came under fire from the western feature and elsewhere. Q Troop intended to assist X Troop with the weapon pits, but found it was unnecessary and followed up B Troop on the other side of town.

SETBACKS

Captain Terence Cousins's A Troop, advancing in two columns of two sections uphill toward the strongpoint on the western feature, was met by heavy German fire. Some came from rifles and machine guns in the strongpoint, but the right-hand sections also took fire from vessels in the port. Unknown to the Commando and to its local informants, two *Artilleriefährprahnen* (loosely translated as flak ships) had put in at Port-en-Bessin to avoid heavy weather a couple of days previously. These flat-bottomed vessels were formidably armed with 88mm guns and heavy (37mm and 20mm) automatic weapons. With his return fire ineffective, and being unable to make progress against further obstacles with no Bangalores remaining, Captain Cousins ordered his troops to withdraw, after suffering 12 killed and 17 wounded.²⁷

A Troop's Corporal George Amos, stunned by a grenade explosion while applying a field dressing to his mortally wounded section leader, was captured and taken to a bunker where he was subjected to an ineffectual interrogation, in German, next to a large poster displaying Adolf Hitler's infamous *Kommandobefehl* or "Commando Order." As he was covered in his sergeant's blood his captors seem to have mistaken him for a medical orderly, a mistake he was happy to go along with.²⁸

Back in the town, while B Troop was searching and questioning Sergeant Fuller's 12 prisoners near the southwest corner of the inner basin, two machine guns opened fire on the troop, one from the *Préventorium* (a tuberculosis isolation facility) across the outer basin, the other from the area of the zigzag track leading up the eastern feature. This fire killed Royal Marine Ernest Breach, wounded 11 others, and scattered the troop to cover in the *Café Terminus* and buildings along the western side of the inner basin.

Captain Walton's X Troop exchanged fire with the flak ship lying alongside the quay, using four Bren light machine guns, a 2-inch mortar, and a captured *Maschinengewehr* (MG) 34 light machine gun. Having been wrongly informed that the flak ships were occupied by friends, he then returned to town.²⁹

More trouble was brewing at Point 72. Machine-gun and mortar fire from the direction of Le Pont Fatu began at about 1630 that afternoon. By 2000, an attack appeared to develop on the rear headquarters. It was not clear to the defenders if the troops in question were German or American. Around this time, Colonel Phillips called forward Y Troop, his last reserve, so it was not available for the defense of Point

²⁷ Forfar, "D-Day, 47 Commando Royal Marines," 317.

²⁸ Forfar, *From Gold to Omaha*, 76.

²⁹ "Brief History of 47 (RM) Commando," 15.

72. Worse, after brushes with various German elements, Y Troop formed the mistaken impression that the rest of the Commando was cut off in the town. As their only radio could receive but not transmit, they tried to establish physical contact with 231st Brigade headquarters to the east. They managed to achieve contact the next morning, but would effectively take no further part in the battle.

The rear headquarters numbered 20 marines, of whom only 8 were armed and with no automatic weapons. Nonetheless, the first German probe was repulsed when two individuals were shot dead. A second attack in section strength with covering fire from two MG-34s was also driven back with losses. Finally, an illuminated attack by 30 or 40 soldiers succeeded in overrunning the headquarters. The Royal Marines detuned their radios, destroyed their maps, and a number evaded capture under cover of a couple of 77 white phosphorus grenades thrown by Captain Guy J. O'Connell. Others were captured, including the wounded regimental sergeant major, but most were freed in the coming days.³⁰ In the darkness, Forfar succeeded in relocating the RAP from Point 72 to the town, with casualties being carried piggyback because of lack of stretchers.³¹

From the town, a reconnaissance party from B Troop probed the lower slopes of the eastern feature and was badly mortared, incurring nine casualties. Captain Cousins, making his own reconnaissance of the eastern feature with a few A Troop survivors, encountered and joined up with the remnant of the earlier reconnaissance party from B Troop. This small party of 3 officers and 10 enlisted discovered a zigzag path on the southern side of the eastern feature leading to the cliff top that appeared clear of mines and not under observation for most of its length. The party got to within 20 meters of the top before coming under fire, and they withdrew under cover of smoke. At about 2100, Captain Cousins reported to Colonel Phillips, "If you can give me 24 or 25 men, I'm quite certain I can get to the top."³²

“CUTTING OUT”

The destroyers HMS *Ursa* (R 22) (Royal Navy commander Derek B. Wyburd) and ORP *Krakowiak* (L 115) (Polish Navy *Komandor Podporucznik* or lieutenant commander Wszzechwlad Maracewicz) had been 800 yards from Port-en-Bessin's breakwater since 1650, unable to provide supporting fire because of uncertainty as to the Commando's positions. At high tide at 2100, both ships came under rifle and machine-gun fire from the bridge of one of the *Artilleriefährprahmen* lying inside the harbor, the bridge protruding above the breakwater. They returned fire, with unknown results, and also conceived a stroke reminiscent of naval "cutting-out" parties of the past. By 2230, two armed motorboats, one from each destroyer, entered the darkening harbor. Seemingly undismayed to discover two vessels where they had thought there was only one,

³⁰ "Brief History of 47 (RM) Commando," 22.

³¹ Forfar, *From Gold to Omaha*, 68.

³² "Brief History of 47 (RM) Commando," 17.

and paying no regard to poorly directed small-arms and mortar fire from the western feature, the little boats each attacked a flak ship, firing Lewis machine guns, rifles, and Lanchester machine carbines (submachine guns). No return fire came from the flak ships and both were boarded. The quayside *Artilleriefährprahm* was half-sunk, and the crews of both vessels had fled, leaving behind three dead Germans and a dog. The black mongrel was rescued by a party from the *Ursa* and adopted under the name of Sappho.³³

Attempts by the sailors to contact the Royal Marines by loud-hailer (bullhorn) were unsuccessful. The marines deduced that the Royal Navy was in action from the sounds of shooting and swearing in English drifting over the water.

THE FINAL ASSAULT

Shortly after 2200, Captain Cousins began the assault on the eastern feature. He led the combined remnants of A and Q Troops, under covering fire from HW Troop's Vickers, and eight Brens and 2-inch mortar smoke from X Troop and Lieutenant Benner's carriers. The commanding officer heard "a mighty cheer" as the Royal Marines surmounted the crest, and at a signal from Captain Cousins, A Troop split left and Q Troop split right.

Captain J. T. E. Vincent's Q Troop, going right, advanced 100 yards firing from the hip, until they encountered a wire fence, possibly marking a minefield. At this point, seven Germans, including an officer, surrendered to them. Then they made a most useful capture—a white-haired, English-speaking *oberleutnant* (lieutenant) with a goatee, who was willing to encourage his compatriots to surrender.

Captain Cousins's A Troop advanced in small parties until it met heavy fire from a bunker. Ordering most of his troop under Lieutenant Wilson to stay under cover until called forward, Cousins attacked with a small party consisting of a Bren gunner (Royal Marine Arthur Delap) and three other Royal Marines (D. E. Howe, J. Madden, and J. E. Tomlinson). After a brief interval of shooting and explosions, Lieutenant Wilson and his party ran forward to find Royal Marine Madden badly wounded and Captain Cousins killed. A captured German was told to call for surrender, and the occupants of the bunker put up the white flag.

Meanwhile, Captain Vincent and his white-haired *oberleutnant* had received more surrenders. His group reunited with Lieutenant Wilson's party and found themselves confronting a substantial group of enemy on a position it seemed impossible to shoot into without being highlighted against the sky. The *oberleutnant* now came to the fore and, after an argument lasting 5 or 10 minutes, the last of the defenders—4 officers and 34 enlisted—gave themselves up.³⁴

With the collapse of the eastern feature, the defenders of the western feature also

³³ "Captured Dog Becomes Ship's Pet," 17 August 1944, IWM A 25202, Admiralty Official Collection, Imperial War Museum, London, UK.

³⁴ "Brief History of 47 (RM) Commando," 17-19.

lost heart. At about 0400 on the morning of 8 June, Corporal Amos was woken by his captors with the offer of a cigar and the words “Kamerad, prisoner.” He led the party of 23 Germans with white flags down from the cliff-top, and B Troop took charge of them at about 0500.³⁵

AFTERMATH

The next morning, the Commando roused at 0600. Resupply, finding Y Troop, and planning to retake Point 72 all occupied Colonel Phillips. He also had to deal with casualty evacuations, including those of civilian wounded. Some of the worst cases were flown to England.

As it happened, the enemy had abandoned Point 72, having ransacked the packs left there, and stolen the second-in-command’s false teeth. On the evening of 8 June, the château at La Fosse Soucy fell to a formal attack by A and D Companies of 2d Devons, supported by machine guns from 2d Cheshires, a squadron of tanks from the Sherwood Rangers (the Nottinghamshire Yeomanry), and a battery of 147th Field Regiment Royal Artillery (the Essex Yeomanry). More than 100 prisoners were taken.³⁶

Other forces were now beginning to arrive in Port-en-Bessin. Elements of the U.S. 3d Battalion, 16th Regimental Combat Team, 1st Infantry Division (the Big Red One), under Lieutenant Colonel Charles T. Horner arrived by 0700, having fought their way ashore at Fox Green Beach in landing area Omaha. The Royal Navy landed a naval officer in charge for the port. The 30th Assault Unit investigated Port-en-Bessin, discovering various papers, a midget submarine, some novel designs of torpedo, and in one of the flak ships, a booby-trapped safe.³⁷ On 9 and 10 June, Montgomery and Bradley visited the port, and by 15 June, pumping operations for the Tombola petrol supply system were ready to begin.

The Commando moved off to Escures and then to Commes (see figure 50 for locations). On 9 June, it mustered 17 of the 24 officers who had embarked and 276 of the 424 enlisted—an overall loss rate of 38 percent (table 1).³⁸ The Commando did not return to the UK at once, but undertook defensive and patrolling actions around Salanelles until the end of July, incurring further casualties.

EVALUATION

This section evaluates the events of the battle based on the military functions listed in *Joint Operations*.³⁹

³⁵ “Brief History of 47 (RM) Commando,” 25–26.

³⁶ Saunders, *Gold Beach—Jig*, 157–59.

³⁷ David C. Nutting, *Attain by Surprise: Capturing Top Secret Information in World War II*, rev. ed. (Chichester, UK: David Colver Publishing, 2003), 180. Ian Fleming, creator of James Bond, served in 30th Assault Unit.

³⁸ “Brief History of 47 (RM) Commando,” 28.

³⁹ *Joint Operations*, JP 3-0 (Washington, DC: Joint Chiefs of Staff, 2018).

Table 1. 47 (RM) Commando casualties

Troop	Embarked, 9 June		at La Rosière, 9 June		at Commes, 9 June	
	Officers	Enlisted	Officers	Enlisted	Officers	Enlisted
HQ	7	63	8	41	5	31
HW	2	35	2	24	2	29
A	3	68	3	66	1	32
B	3	65	3	65	3	44
Q	3	64	3	34	2	37
X	3	64	2	63	3	62
Y	3	65	1	48	1	41
Total	24	424	22	341	17	276

Source: Brief History of 47 Commando

Command and Control

The structure of a Commando is unusual compared to other World War II units. It has roughly one-half the personnel and firepower of a regular British infantry battalion, but a Commando has billets for 24 officers compared with 36 in the infantry battalion. One level of command is effectively skipped, but five rifle troops and one weapons troop give a broader organization than is usual under the “rule of three.” This may be partly explained by the need to fit the organization into landing craft—a troop fits neatly into an LCA or landing craft, vehicle personnel (LCVP), with at least one officer in each boat—but it also gives a greater span and fewer layers of control to the unit commanding officer. While the unusual command structure does not seem to have had a significant influence on the battle, the broad span of command may have contributed to Y Troop wandering off in the final stages of the battle.

Poor communications dogged 47 Commando throughout the operation due to the damage to all long-range radio sets on landing. A replacement FOB and the loan of a long-range set from 231st Brigade enabled them to carry on. Replanning and waiting until coordination could be completed certainly delayed the success of the mission, but does not seem to have severely endangered it. This is a reminder that tempo does not necessarily mean doing things quickly, it means doing them at a pace that suits friendly troops more than the enemy.

Improvised collaboration at the initiative of local commanders was shown in the U.S. offer of fire from LCT(R)s, the naval cutting out mission despite lack of ship-to-shore communication, and resupply from the Devons’ carriers and Captain Lindon’s trucks. Odd command relationships did not seem to have been a problem, although it might have been helpful if the Commando had met troops from 50th Division before working with them. It would have been an advantage to delay subsequent waves on

beaches not cleared of enemy by the planned time, but this was not possible when landings had to be accomplished based on a fixed timetable.⁴⁰

The problem of succession of command had been adequately dealt with during the commanding officer's absence from the early part of the Commando's move inland. Their over-hasty cutting of the telephone cable at the Château du Bosq deprived the German garrison of communication with the outside world for the duration of the battle.

Information

The battle shows the utility of language skills, enabling communication with both friend and enemy. The Commando obtained a substantial advantage in the collaboration of the local civilian population, particularly from Gendarme Gouget. Local civilians provided care for the Commando's wounded, regardless of risk to themselves. Clearly, fighting in a built-up area with a friendly populace is a very different proposition from having to deal with a hostile one.

The attachment of native German speakers from 10 (Inter-Allied) Commando proved its value with Sergeant Fuller's captures, and the cooperative *oberleutnant* was a boon to the Commando in obtaining the final surrender. Contrast this with the ineffectual efforts at interrogating Corporal Amos in German.

Intelligence

The D-Day landings on 6 June 1944 benefited from thorough intelligence preparation, and 47 Commando had a clear picture beforehand of the mission as a whole and its own part in it. Once ashore, however, the Commando relied on intelligence collected by contact with the civil population or by its own patrols. Patrolling seems to have been of a high standard, with the marines often detecting the enemy before being detected themselves, especially on the approach march.

As shown by the capture of their sick parade, the German garrison failed to notice the Commando's occupation of Point 72 overnight, while the Commando had patrols out to warn of any possible counterattack. Where the Commando might have been better served by existing intelligence arrangements was through an early warning about the presence of the *Artilleriefährprahmen*. These had been photographed by U.S. Army Air Forces aircraft on D-Day, but the information had not been passed on to the Commando.⁴¹

Fires

The Commando employed fire support in the form of organic heavy weapons, field artillery from neighboring units, naval gunfire support, and close air support. Losses

⁴⁰ *Battlefield Tour, August 1947, 50 (Northumbrian) Infantry Division Normandy Assault—June 1944*, the Staff College, Camberley, 1947, 221.

⁴¹ Forfar, *From Gold to Omaha*, 61.

to HW Troop on landing largely nullified organic fire support; the surviving Vickers machine gun, and 3-inch mortar without its sight, contributed to a negligible degree. Massed Bren light machine guns covered Cousins's assault up the zigzag track, a task that would normally have been conducted by tripod mounted machine guns and that highlights the usefulness of the carrier platoon borrowed from the Devons. They made considerable use of 2-inch mortars, especially for firing smoke. British soldiers later regretted the loss of capability caused by the withdrawal from service of the platoon light mortar.

The U.S. Army was originally supposed to provide artillery support, but 50th Division's fire planning was flexible enough for a Royal Artillery battery to be substituted. Neutralizing fires were provided by naval gunfire support from HMS *Emerald* and close air support from 2d Tactical Air Force. More fire would have been available from American LC(R)s and from the destroyers *Ursa* and *Krakowiak* had it been feasible to ensure the avoidance of fratricide, but lack of ship-to-shore communications excluded the possibility.

German artillery and mortar fires were effective in inflicting casualties on the landing waves on the beach, despite the air and naval bombardment intended to neutralize them. Presumably, they would have been more effective had these counterfires not been delivered. A 1945 memorandum says "It is considered that complete neutralisation was not achieved, nor was this to be expected in view of the actual density of the total fire preparation," and suggests that 20–40 percent of defensive weapons did not fire, while the rest were reduced in effectiveness.⁴²

Allied air supremacy ensured that German air played no part in the battle and likewise that German terrestrial artillery was not a consideration once off the beach. The firepower of the *Artilleriesfahrprahmen* was very effective and a rude shock to A Troop. The Germans, however, were unable to exploit their success, although the troop remained ineffective for an appreciable time. German mortars remained a persistent nuisance and produced a continual drain of casualties. This would be an enduring theme for the rest of the Normandy campaign and beyond.

Movement and Maneuver

The Commando's overall concept of maneuver—to land away from the objective and capture the port from landward—seems entirely sound and stands as a good example of the indirect approach. The Commando had to move from landing beach to objective dismounted, through enemy territory. The load per marine carried on this move, 88 pounds (40 kilograms), was significantly more than the contemporary *Field Service Marching Order* (FSMO) or the Cold War-era *Complete Equipment Marching Order* of 28–33 kilograms, but far less than the weights carried in recent operations, which

⁴² I. Evans, AORG Memorandum No. 524, *Comparison of British and American Areas in Normandy in Terms of Fire Support and its Effects*, 1945, WO 291/837, National Archives, Richmond, UK.

are typically twice as much.⁴³ A 19-km march carrying 40 kilograms would not be regarded as an extremely challenging feat today. It seems to have been well within the Commando's training standards of the time (24 km in 4 hours, or 56 km in 14 hours, in FSMO and fit to fight after 2 hours rest).⁴⁴ Moreover, the Commandos did not attempt to fight at this weight in the battle for the town, instead dumping their packs at Point 72. It seems that they may have gone into action carrying approximately one-third of their bodyweight, the maximum desirable load according to U.S. Army combat historian S. L. A. Marshall.⁴⁵ They also had opportunities to rest—two hours sleep on the night of 7 June—and seemingly no strenuous activities on the following morning. Had they been obliged to carry the weight typically loaded onto infantry today, it seems doubtful that they could have completed the mission.

The German defense was essentially static, relying on fixed fieldworks. In contrast, overrunning the Commando's rear headquarters at Point 72 showed the Germans' tactical habit of immediate counterattack to good advantage.

Protection

An obvious failure of protection from the Royal Marines' point of view was the level of casualties suffered on landing. However, it is difficult to suggest what could have been done better, apart from delaying the landing of the follow-on waves. The LCA was better protected than the LCVP, and no landing craft design could be expected to survive a fair hit from a coastal gun or being driven against an underwater obstacle fitted with a Teller mine.

The German garrison had the benefit of concrete fieldworks defended by wire and mines. While this doubtless prevented casualties from fire of all kinds, it did not contribute to final success. The defenses did not seem to achieve any degree of mutual support, and from the direction in which they were attacked, they offered little in the way of depth or routes of retreat. In the absence of any local reserve with which to counterattack, and the absence of an external relief force, such a self-fixing "die-in-place" defense relied on being able to hurt the attackers so badly that they gave up. Against 47 Commando, that did not work.

Sustainment

The relatively light weight of the Royal Marines' load meant that they relied on resupply from their own carriers, the Devonshires' carrier platoon, and Captain Lindon's trucks at various points in the operation. Since the main requirement for resupply

⁴³ See, for example, Anthony G. Williams, "Reducing the Infantryman's Load," *UK Land Power* (blog), 13 December 2017.

⁴⁴ James Dunning, *It Had to Be Tough: The Origins and Training of the Commandos in World War II* (Barnsley, UK: Frontline Books, 2012), 35.

⁴⁵ Col S. L. A. Marshall, *The Soldier's Load and the Mobility of a Nation* (Quantico, VA: Marine Corps Association, 1980), 25–26.

was small arms ammunition, the modest number of vehicles available sufficed despite the mission lasting longer than planned.

The loss of equipment during landing was largely remedied by the Royal Marines' initiative in scrounging from friend and enemy alike. For example, on the morning of 8 June, Forfar was running out of medical supplies but managed to get a message through to the Americans on Omaha Beach. A short time later, a U.S. aircraft dropped "generous supplies of dressings and sulphonamides [antibacterials]."⁴⁶ The defenders, with stockpiles in place, did not encounter any sustainment problems, and in the case of the weapon pits, plentiful supplies of all kinds were found after capture.

ANALYSIS: PATTERNS OF COMBAT

This section considers whether the battle reflects certain patterns of combat that have been proposed by historical analysts.

The Rural Infantry Battle

British historical analysts L. R. Speight and D. Rowland described a typical pattern of rural infantry battle in which the attackers unmask at about 300 meters, and the defenders become acutely vulnerable at about 30 meters.⁴⁷ Following this pattern, the attackers would be spotted first. However, in the destruction of the observation post en route to La Rosière, the destruction of the machine gun post once there, taking the weapon pits, Sergeant Fuller's capture of the party by the outer basin, and Captain Cousins's initial reconnaissance up the zigzag tracks, the advancing 47 Commando detected the enemy first, or at least before the defenders could do them any harm. This suggests that the Commandos had a decisive edge over their opponents in fieldcraft, perhaps aided in some cases by the Germans holding fixed fieldworks. Today, sensor technology offers that sort of edge, but training can make the difference and, as the U.S. Marine Corps discovered with its Combat Hunter Course, expertise weighs nothing.⁴⁸

Microbattles and Time Distribution of Casualties

A popular and long-standing technique in combat analysis is based on the system describing the loss rates of two sides (attrition) in combat known as Lanchester's laws or

⁴⁶ Forfar, *Omaha to the Scheldt*, 87–88.

⁴⁷ L. R. Speight and D. Rowland, "Modelling the Rural Infantry Battle: Overall Structure and a Basic Representation of the Approach Battle," *Military Operations Research* 11, no. 1 (2006): 5–26.

⁴⁸ Patrick van Horne and Jason A. Riley, *Left of Bang: How the Marine Corps' Combat Hunter Program Can Save Your Life* (New York: Black Irish Entertainment, 2014).

Lanchester's theorem.⁴⁹ One of the key assumptions of Lanchester's attrition formula is that losses can be described by a smooth process over time, with all weapons on each side capable of engaging all targets on the other.

These assumptions do not describe combat well at the scale of the Port-en-Bessin battle.⁵⁰ Despite their apparent advantage in fieldcraft, the Commando did not have things all its own way in surprise encounters and, apart from the casualties suffered during the landing, three examples of multiple casualties concentrated in a short time stand out: eight wounded in Q Troop at La Rosière; 12 killed and 17 wounded in A Troop from Cousins' first attack on the western feature, when the *Artilleriefährprahmen* were discovered; and 1 killed and 11 wounded in B Troop from the machine guns that opened fire across the inner basin. In each case, bunched casualties resulted from surprise fire by automatic weapons. In A Troop's case, this was aggravated by the multiplicity of heavy automatic weapons in the *Artilleriefährprahmen* and the impossibility of making progress against an unbreached obstacle. These three incidents account for 39 percent of the Commando's total killed and wounded in the operation and the initial landing casualties account for another 39 percent, showing that direct-fire combat at this scale is extremely "bursty." It perhaps supports the German preference for machine guns with very high rates of fire to make the most of fleeting opportunities to engage profitable targets.

The action favors the "microbattles" view of tactical combat suggested by Rowland.⁵¹ Targets are not exposed to fire in steady, regular arrays, but appear briefly, intermittently, and locally as they should if the targets were trained in infantry fieldcraft. A challenge for the analyst is finding credible figures with which to quantify those descriptors. Combat occurs not as a smooth, global process but as an intermittent series of few-on-few microbattles.

The Effect of Built-Up Areas

Compartmentalization of terrain is a factor in the formation of microbattles, which may explain Rowland's findings based on historical analysis and supported by independent research from the Dupuy Institute that, contrary to conventional military

⁴⁹ Based on the World War I-era work of English mathematician and engineer Frederick Lanchester, these mathematical formulas calculate the relative strengths of opposing forces. Paul Syms, "Validating Lanchester Models: The First 60 Years" (presentation, 34th International Symposium on Military Operational Research, London, 18–21 July 2017). See also Paul R. Syms, "34 ISMOR Workshop: How Do We Improve Lanchester Combat Models for Defence Decision-making?" (workshop, 34th International Symposium on Military Operational Research, London, 18–21 July 2017).

⁵⁰ L. R. Speight, "Modelling the Mobile Land Battle: The Lanchester Frame of Reference and Some Key Issues at the Tactical Level," *Military Operations Research* 1, no. 3 (Fall 1995): 53–65.

⁵¹ David Rowland, *The Stress of Battle: Quantifying Human Performance in Combat* (London: Stationery Office, 2006), 32–36.

wisdom, urban terrain does not favor the defender.⁵² This seems to be borne out by the apparent ease with which 47 Commando infiltrated the town. The defenders did not make any serious attempt to hold the town or counterattack into it, preferring instead to concentrate in the prepared fortifications outside.

Mechanisms of Defeat

The Germans in Port-en-Bessin were, as with most victories of any size, defeated by surrender rather than annihilation. The attitude of individual German troops encountered along the route varied from the cheerful surrender of the bike-riding *stabsfeldwebel* to the suicidal determination of the *kubelwagen* driver. Once the Commando began its attack from Point 72, it is hard to see what alternative the garrison had between surrender and destruction, being cut off from landward forces, lacking communications, and having witnessed the power of Allied air and naval forces. Of the four criteria for collapse proposed by Bruce Allen Watson, one may recognize powerlessness and isolation (the other two are normlessness and meaninglessness).⁵³ The Royal Marines were not immune to surrender when circumstances had become hopeless; 12 commandos became prisoners at some point, 6 permanently so.

As we would expect from previous research, nothing in this battle supports the idea that units become ineffective at some “breakpoint” casualty threshold.⁵⁴ With communications as poor as they were, it would have been difficult to know what was going on outside one’s immediate vision, as shown by Y Troop wandering off. The level of casualties would therefore be entirely unclear, as shown by the phenomenon of missing troops rejoining the Commando along its journey from the beach. The Germans in their prepared positions presumably had better technical means of communication than the Commando. Awareness of the wider situation did not necessarily offer an unalloyed advantage. The strongpoint on the western feature surrendered to Corporal Amos once they learned of the collapse of the eastern feature.

THE 3:1 RATIO

Though the effectiveness of the external firepower called on by the Commando cannot be assessed, it could hardly have been encouraging for those on the receiving end. In particular, the rapid collapse of the defense at the weapon pits suggested a

⁵² Dupuy Institute, *Measuring the Effect of Combat in Cities, Phase I* (Fort Belvoir, VA: Center for Army Analysis, Department of the Army, 2002); and David Rowland, “The Effect of Combat Degradation on the Urban Battle,” *Journal of Operational Research Society* 42, no. 7 (1991): 543–53, <https://doi.org/10.1057/jors.1991.113>.

⁵³ Bruce Allen Watson, *When Soldiers Quit: Studies in Military Disintegration* (Westport, CT: Praeger, 1997).
⁵⁴ Dorothy K. Clark, *Casualties as a Measure of the Loss of Combat Effectiveness of an Infantry Battalion* (MacLean, VA: Research Analysis Corporation, 1954); Janice B. Fain et al., *Forced Changes of Combat Posture* (Fairfax, VA: Data Memory Systems, 1988); and Robert L. Helmbold, *Decision in Battle: Breakpoint Hypotheses and Engagement Termination Data* (Santa Monica, CA: Rand, 1971).

Table 2. Force ratios and success factors of assaults

Assault	Scale	Force ratio	Winner	Success factor(s)
La Rosière	Troops X and B	3:1	Attacker [Commandos]	Surprise, outflanking
Weapon pits	Troop X	3:1	Attacker [Commandos]	Rocket air attack, fixed bayonets
Western feature	Troop A	2:1	Defender [Germans]	Obstacles, surprise fire from flak ships
Eastern feature	Troops A and Q	2:3	Attacker [Commandos]	Night
Point 72 (1)	Squad	1:2	Defender [Commandos]	
Point 72 (2)	Squad	1:2	Defender [Commandos]	
Point 72 (3)	Platoon (+)	5:2	Attacker [Germans]	Night

Source: Brief History of 47 Commando

powerful shock effect from rocket strafing closely followed by marines with fixed bayonets.⁵⁵

Seven distinct assaults can be identified (table 2). Elements of shock and surprise, including outflanking, limited visibility, and air attack seem to have contributed to success. Insofar as force ratios can be estimated, the attackers at La Rosière and the weapon pits had about a 3:1 ratio. The first two German attacks on Point 72 failed to use enough force, before finally succeeding at about 5:2. Of Captain Cousins's two attacks, the one with numerical superiority (on the western feature) failed—numbers are no help against effective obstacles and heavy automatic weapons—and the one with numerical inferiority (on the eastern feature) succeeded, which must be attributed to the sheer determination of the attackers. This exceptional combat aside, the 3:1 ratio holds up pretty well as a rule of thumb for this small sample of battles of company or platoon size. Its validity for larger engagements is doubtful.⁵⁶

⁵⁵ Rowland, *The Stress of Battle*, 178–213.

⁵⁶ Christopher A. Lawrence, *War by Numbers: Understanding Conventional Combat* (Lincoln: Potomac Books, an imprint of University of Nebraska Press, 2017).

TROOP QUALITY AND LEADERSHIP

Although there were many differences between the two sides, both were regulars engaged in open, high-intensity combat. Though the war in Europe was in its fifth year, neither of the units engaged had experienced ground combat before. The Royal Marine Commandos were better quality troops than their German Army opponents. Though not an all-volunteer force, like the Army Commandos (or 40 and 41 Royal Marine Commandos) of the time, they underwent the same rigorous training at Achnacarry as the 1st and 5th Battalions of the U.S. Rangers.

A second-class formation with a static role and a high proportion of foreign recruits, *716th Static Infantry Division* was nonetheless raised long before Germany was reduced to the scrapings of the manpower barrel, such as the *70th Fortress Division*, composed of “stomach battalions,” who 47 Commando would meet later at Walcheren (the island dominating the approaches to Antwerp).⁵⁷ These troops were no pushovers, and the division as a whole fought until it was beaten to tatters.

For British forces in World War II, casualty rates for officers were higher than for enlisted. Yet, 47 Commando’s casualties for this battle showed a strikingly similar rate for officers and enlisted. One possible explanation is the high level of personal initiative expected of Commandos, reducing the need for commissioned officers to expose themselves to danger to motivate their troops. The high levels of individual initiative inculcated by Commando training show up especially in the way so many men had rejoined by the time the unit reached the rendezvous point at La Rosière, after the confusion of the landing. One long-standing argument against special forces is that they risk starving ordinary units of leadership. As well as the higher proportion of officers required in the Commandos, a private soldier in a Commando unit might be good enough to be a section leader elsewhere.⁵⁸ However, if there is limited sealift, it is not good business to fill it with less than the best.

Even before the Commandos arrived at Port-en-Bessin, they had to overcome a series of setbacks that might have discouraged lesser forces. Instead of an unopposed landing, the Commando landed under fire, suffering greater than 10 percent casualties and many missing, including the commanding officer. Improvising a route and fighting through several skirmishes, the Commando made its way to the first rendezvous to find the enemy in possession. Having defeated them, and with the commanding officer back in charge, 47 Commando pressed on to its final rendezvous, defeating further minor opposition. The expected contact with the Americans did not happen. Using borrowed radios and with a new plan in place, 47 Commando assaulted Port-en-Bessin a day behind schedule. After initial successes, the attack stalled on entrenched cliff-top positions protected by mines and wire and surprise fire

⁵⁷ Forfar, *From Omaha to the Scheldt*, 176–249.

⁵⁸ Andrew L. Hargreaves, *Special Operations in World War II: British and American Irregular Warfare* (Norman: University of Oklahoma Press, 2013), 242–48.

from two *Artilleriefährprahmen*. The Commando's rear headquarters was overrun, and Y Troop became separated. After all this, Captain Cousins's self-sacrificing assault on the eastern feature brought about the collapse of the German defense and their wholesale surrender. The Commando's victory owed nothing to brilliant stratagem and everything to dogged persistence.

CONCLUSION

Perhaps the final lesson of this remarkable battle is the value of studying military history, where events so improbable are discovered that no sober analyst would include them in a model. British general Sir Brian G. Horrocks said later, "It is doubtful whether in their long, distinguished history the Marines have ever achieved anything finer."⁵⁹ The troops of 47 Royal Marine Commando lived up to the ideal of the Commando soldier described by Lieutenant Colonel Charles Vaughan (commandant of Commando Basic Training Centre Achnacarry): "Willing and capable of tackling any military task, under any circumstances, and against any odds."⁶⁰

⁵⁹ Forfar, "D-Day, 47 Commando Royal Marines," 322.

⁶⁰ Dunning, *It Had to Be Tough*, 97.

CHAPTER SIXTEEN

German Naval Evacuations on the Eastern Front, 1943-45

Gregory Liedtke

Conducting a successful retreat in the face of a superior enemy is generally considered one of the most hazardous undertakings of the military art. Troops are prone to panic and confusion, so careful planning and coordination are vital lest personnel and equipment are lost unnecessarily, and a victorious adversary needs to be delayed long enough for the retreating force to reach safety. Perhaps a worse scenario would be if this retreat includes a naval evacuation from an isolated bridgehead. Aside from the hazards already noted, a naval evacuation involves even greater complications and dangers, including the prospect of vulnerable transport ships packed with troops being sunk by enemy warships, submarines, aircraft, mines, or even the weather. Although usually overshadowed by the far larger and more dramatic contest on land, Germany's operations against the Soviet Union during the latter years of the Second World War involved a number of such naval evacuations. Despite being hamstrung by limited resources and confronted by superior Soviet military forces, these operations proved remarkably successful in evacuating large numbers of troops and equipment. While ultimately incapable of altering the decline in Germany's military fortunes after 1943, the success of these naval evacuations was nonetheless significant in prolonging German resistance for longer than would otherwise have been the case.

The first and most successful German naval evacuation on the eastern front was

that of the Kuban bridgehead.¹ The Soviet offensive conducted around Stalingrad on 19 November 1942 tore a massive hole in the Axis lines and within days had encircled the bulk of the German *6th Army* in the city. Subsequent relief efforts failed and, by early February 1943, the last survivors of the *6th Army* finally surrendered. In the wake of the disaster around Stalingrad and the subsequent collapse of the southern portion of the German front, the westward advance of the Soviet armies threatened to seize the city of Rostov and cut off the Axis forces lodged deep in the Caucasus. These were organized into *Army Group A* and divided among the *1st Panzer* and *17th Armies*. Resigning himself to the arguments of senior military advisors and field commanders, Adolf Hitler grudgingly granted *Army Group A* permission to retreat on 27 January 1943. However, he insisted that only elements of the *1st Panzer Army* would be moved back through Rostov to rejoin the main German front. The majority of the Axis forces, under the command of the *17th Army*, would instead withdraw into the Kuban region, forming an expanded bridgehead based on the Taman Peninsula. Arguing that insufficient time remained to move all of *Army Group A* back through Rostov (largely because of his own procrastination on the matter), Hitler reasoned that retaining a foothold in the Caucasus would divert Soviet resources from the main front and even serve as a potential bridgehead from which a fresh German offensive could be launched to capture the oilfields of the region that were crucial to Germany's continued war effort.²

Despite incessant Soviet attacks, by early April, the *17th Army* successfully managed to pull back into the Kuban bridgehead, where it occupied a series of prepared fortified positions known as the *Gotenkopfstellung* (Goth's Head position). At this point, the situation stabilized, and during the next several months the German and Romanian troops repelled a series of powerful Soviet offensives designed to eliminate the bridgehead.

Crucial to the survival of the *17th Army* was the smooth functioning of its maritime supply lines. Stretching through the Kerch Strait and connecting the Black Sea and the Sea of Azov, it ran from the coastal city of Kerch in Crimea to the ports of Taman, Zaporozhskaya, Temryuk, and Anapa on the Taman Peninsula. The narrowness of the strait meant that it was both comparatively easy to defend and quick to

¹ The bridgehead was a German position on the Taman Peninsula between the Sea of Azov and the Black Sea. While many accounts of the war on the eastern front usually make some reference to the Kuban bridgehead, virtually no dedicated studies have been produced. One of the few is Robert Forczyk, *The Kuban 1943: The Wehrmacht's Last Stand in the Caucasus* (New York: Osprey, 2018), which provides an excellent, if short, summary. The most detailed account of the various Soviet offensives launched against the bridgehead can be found in David M. Glantz, *Forgotten Battles of the German-Soviet War, 1941-1945*, vol. 5, *The Summer-Fall Campaign, 1 July-31 December 1943*, pt. 1 (Atglen, PA: privately published, 2000), 107-58. The foremost study of the evacuation from the Kuban remains Friedrich Forstmeier, *Die Räumung des Kuban-Brückenkopfes im Herbst 1943* (Darmstadt, Germany: Wehr und Wissen Verlag, 1964).

² For the decision-making process regarding the withdrawal of *Army Group A* and the formation of the Kuban bridgehead, see Horst Boog et al. *Germany and the Second World War*, vol. 6, *The Global War* (Oxford, UK: Oxford University Press, 2015), 1173-77.

traverse. For example, only 25 kilometers separated Kerch from the port of Taman. This was fortunate because Axis naval strength in the Black Sea was extremely limited, primarily consisting of the Romanian Navy, whose largest warships were four destroyers (two of which were modern), one old torpedo boat, two minelayers, three gunboats, and a number of smaller craft. German naval resources, while having expanded considerably since 1941, were even weaker. The largest warships were a handful of fishing trawlers and small merchant ships that had been converted into patrol ships or submarine chasers. Most German naval assets were small ships, including motor torpedo boats and minesweepers, coastal U-boats, and a considerable quantity of the ubiquitous *Marinefährrahm* (MFP) naval landing craft. The number of Axis merchant ships in the Black Sea available for employment as transports was also extremely limited. Given the scarcity of larger warships and merchant vessels, none of these appear to have been hazarded in the Kerch Strait. Instead, the task of supplying the Kuban bridgehead was assigned to four landing craft flotillas with 40–50 MFP and a conglomeration of Siebel ferries, motorboats, tugs, barges, and other small craft, all of which were protected by only a few patrol ships, eight motor torpedo boats, five motor minesweepers, and some artillery barges.³ Between March and August 1943, these craft managed to transport 337,353 tons of supplies to the *17th Army*, or an average of 2,219 tons per day.⁴

Despite the weakness of Axis naval assets, two factors played heavily in the successful maintenance of the *17th Army's* supply lines. The first of these was the state of the Soviet naval forces. In 1941, the Soviet Black Sea Fleet had far outmatched its opponents, but two years of war had badly reduced both its strength and capabilities.⁵ The latter was significantly degraded by the loss of its main shipbuilding and repair facilities at Nikolayev, Ukraine, in 1941, and its primary base at Sevastopol in 1942, compelling the fleet to withdraw to a series of small ports in the Caucasus that lacked suitable repair facilities and support installations. Though the Black Sea Fleet still mustered one battleship, four cruisers, nine destroyers, and 29 submarines in early 1943, the inability to conduct extensive maintenance and repairs meant that ship

³ The Siebel ferry (*Siebel fähre*) was a shallow-draft catamaran or pontoon-style landing craft operated by the *Wehrmacht*. During the preparation for Operation *Seelöwe* (September 1940), or Operation Sea Lion, as the Allies would call the invasion of England, it became clear that the *Kriegsmarine* needed more landing crafts. The *Luftwaffe's* proposed solution was the Siebel ferry, which was named for its inventor, aircraft designer Col Fritz Siebel. The ferries served a variety of roles (e.g., transport, flak ship, gunboat, convoy escort, minelayer) in the Mediterranean, Baltic, and Black Seas as well as along the English Channel. Siebel ferries continued to be used after the war's end in 1945.

⁴ Also transported were 2,566 horses, 1,099 motor vehicles, and 197 artillery pieces. Rolf-Dieter Müller, *Das Deutsche Reich und der Zweite Weltkrieg*, Band 10, *Der Zusammenbruch des Deutschen Reiches 1945 und die Folgen des Zweiten Weltkriegs-Teil 1* (Stuttgart, Germany: Deutsche Verlags-Anstalt, 2008), 238–39. *Luftwaffe* air transport groups also played a crucial role; in March 1943 alone, they delivered 9,087 tons of supplies and evacuated 21,889 troops and 2,887 civilians.

⁵ In 1941, the Soviet Black Sea Fleet was composed of 1 battleship, 2 heavy and 3 light cruisers, 3 large flotilla leaders, 11 modern and 5 old destroyers, 44 submarines, and 84 motor torpedo boats.

serviceability was very low, especially among the heavier units of the fleet. Together with the lack of destroyer escorts and a reluctance to expose them to German air attacks, prowling U-boats, or mines, this effectively confined the larger ships to port for the remainder of the war. During the winter of 1942–43, the destroyers conducted a number of raids against Axis shipping off the Crimean coast, but thereafter their operations were comparatively rare because of the resurgence of German air strength in the region and the unwillingness of Soviet naval commanders to expose their small number of remaining destroyers. The available information indicates that Soviet submarine operations around the Kerch Strait was also limited, focusing mostly on the larger Axis merchant ships sailing in the western Black Sea area instead.⁶ As a result, this left only an array of smaller Soviet warships—motor torpedo boats, minesweepers, and gunboats—to interdict Axis naval traffic between the Crimea and the Kuban. These do not appear to have conducted a serious effort to do so, instead focusing on safeguarding their own supply convoys to the Soviet bridgehead located southwest of Novorossiysk that had been established in February (figure 52).⁷

The second crucial factor in the successful maintenance of the 17th Army's supply lines was the inability of Soviet air units to either dominate the airspace above the Kerch Strait or conduct an effective interdiction campaign against Axis maritime traffic. Beginning in April, both sides surged the number of aircraft they deployed to the region; and in a series of fiercely fought air battles that lasted until early June, the pilots of the *Luftwaffe* usually dominated the skies and inflicted heavy losses on their Soviet counterparts.⁸ Most of the operations of the Red Army Air Force were focused on providing direct ground support of the Soviet land forces during their various offensive operations and missions against Axis shipping appear to have infrequent. The efforts of the few available Soviet naval torpedo bombers were also devoted primarily to strikes against Axis shipping on the west coast of the Crimea, possibly because these were viewed as easier, more lucrative targets when compared to the small craft plying the Kerch Strait. At this point in the war, the operations of many Soviet air units were also hampered by poor levels of pilot training, inexperience (especially in attacking naval targets), and inadequate command staff. All this meant that Soviet air strikes against Axis maritime traffic were rare and generally ineffectual.⁹

⁶ A rare success occurred off the coast of the Kuban on 28 August when the Soviet submarine *M-111* sank the German tug *Hainburg* (400 BRT), which was later raised and repaired.

⁷ For the most detailed account of the Soviet Navy during this period, see Jürgen Rohwer and Mikhail S. Monakov, *Stalin's Ocean-Going Fleet: Soviet Naval Strategy and Shipbuilding Programmes, 1935–1953* (Portland, OR: Frank Cass, 2001).

⁸ No detailed study of the air battle over the Kuban has been produced, not even in Russian, which is unusual considering the level of importance, and almost reverence, that Soviet and later Russian commentators attributed to the aerial confrontation.

⁹ In June 1943, Soviet torpedo bombers managed to achieve a rare success by sinking the German transport *Birgit* (1971 BRT) near the port of Yevpatoriya. Other Soviet aircraft sank the motor minesweeper *R.33* off Yalta on 19 July and the motor torpedo boat *S.46* on 11 September near the port of Feodosia.



FIGURE 52
Soviet soldiers crossing the Syvash to the Crimea.
Russian Federation

However, by late June, most German air assets were withdrawn from the region in preparation for the large-scale offensive that was to be conducted in July around Kursk, codenamed Operation Citadel. By early July, Axis air strength in the region had declined to roughly 100 aircraft, of which no more than one-half were fighter planes. In contrast, the Soviet 4th Air Army mustered 1,016 aircraft and the naval aviation units of the Black Sea Fleet contained a further 482, for a total of nearly 1,500 airplanes that included 728 fighters, 332 ground attack aircraft, and a total of 380 day and night bombers and torpedo planes.¹⁰ Although a number of units were soon withdrawn for operations elsewhere, Soviet aviation assets likely mustered around 1,000 aircraft by the end of the month. Such a disparity of numbers alone should have resulted in complete Soviet air dominance and a subsequent closing of the Kerch Strait to German maritime traffic, at least during daylight. Though the operations of Soviet air units against enemy shipping appear to have increased and the transit of

¹⁰ Strength of 4th Air Army cited from *Tsentral'nyi arkhiv Ministerstva oborony RF (TsAMO)* [Central Archive of the Ministry of Defense], Fond 35, Podolsk, Russia; Strength of Black Sea Fleet VMF detailed in *Rossiiskii gosudarstvennyi arkhiv Voenno-Morskogo Flota (RGAVMF)* [Russian State Archive of the Navy], Fond 11, delos 35618ss, St. Petersburg, Russia, 212; RGAVMF, Fond 45, delos 2792ss, sheet 1; RGAVMF, Fond 101, delos 10136ss, 76-95; and RGAVMF, Fond 108, delos 38768ss, 42.

the Straits thereby became more dangerous, the flow of German naval traffic suffered no significant disruptions.¹¹

Ultimately, the fate of the Kuban bridgehead was determined not by Soviet ground attacks or interdiction efforts but by the failure of the German offensive around Kursk. In its wake, the Red Army launched a series of offensive operations that by late August threatened to collapse the central and southern portions of Germany's eastern front, forcing the Germans to retreat westward. Finally conceding that the bridgehead had lost its strategic purpose and compelled by the need to free resources for other sectors of the front, Hitler authorized the evacuation of the Kuban, codenamed Operation Krimhilde-Bewegung, on 3 September, and the movement of troops and materiel to the Crimea commenced the following day. Belatedly catching wind that an evacuation of the bridgehead had begun, Soviet troops made a series of hasty attacks starting on 10 September. Moving back through a series of previously constructed defense lines, the Axis troops, though hard pressed, managed to hold off these attacks and the evacuation continued without significant disruption. Once again, Soviet air units focused on providing ground support and seem to have done little to hinder the movement of shipping between Kerch and the Taman Peninsula. The German naval war diary records 85 air attacks involving 420 aircraft, or only 2 air attacks of 5 aircraft apiece each day.¹² Soviet naval efforts to disrupt the evacuation were equally ineffectual and actually ended in disaster when, having shelled Crimean ports the previous night, the flotilla leader *Kharkov* (1938) and the destroyers *Besposhchadny* (1936) and *Sposobny* (1940) were caught in daylight and sunk by German dive bombers on 6 October. Shocked by these losses, Stalin subsequently forbade the use of warships the size of destroyers and larger without his permission, a decision that would aid the Axis evacuation of the Crimea several months later.

The evacuation of the Kuban concluded successfully three days later when the German rearguard was withdrawn from the Taman Peninsula during the early morning of 9 October. Since Operation Krimhilde had started, a total of 239,669 people (including 50,139 Romanians, 28,486 volunteer auxiliaries, 16,311 wounded, and 27,436 civilians), 115,477 tons of materiel, 21,230 motor vehicles, 1,815 artillery pieces, and 74,657 horses were safely evacuated to the Crimea.¹³ Naval losses were limited to 16 small vessels sunk by aircraft and mines, and another 9 damaged.¹⁴ The total losses sustained by the 17th Army throughout all of October and September amounted to only

¹¹ Between 20 July and 10 August, 84,100 military personnel and civilians, 6,477 motor vehicles, 3,630 horses, and 113 artillery pieces were transported safely from the Kuban to the Crimea. "LXXII. Armeekorps. Ia, Anlagen zum KTB 2," T314 Roll 1562, Frame 001203, National Archives and Records Administration (NARA), College Park, MD.

¹² *War Diary of Admiral, Black Sea, 1 October 1943–31 October 1943* (Washington, DC: Office of Naval Intelligence, Department of the Navy, 1955), 41.

¹³ Another 15,661 personnel were evacuated by air transports. Müller, *Das Deutsche Reich und der Zweite Weltkrieg*, 240.

¹⁴ Shipping sunk by aircraft included one MFP, one motor minesweeper, four harbor defense boats, one tug, five lighters, and one motor fishing cutter. Three MFP were lost to mines. *War Diary of Admiral*, 41.



FIGURE 53
Map of Summer and Fall offensives.
Official U.S. government image

7,684 casualties, including 1,527 killed and 441 missing. In contrast, while attempting to prevent the Axis forces from escaping, the 248,700 personnel belonging to the Soviet North Caucasus Front sustained 64,235 casualties, including 13,912 killed or missing.¹⁵ Occurring at an extremely tense and dangerous moment for the German Army on the eastern front, the successful evacuation of large numbers of troops and equipment at minimal cost was crucial in maintaining German morale. More importantly, the evacuated units retained their combat readiness and troop strength. As they were evacuated, however, 9 of the 10 German divisions belonging to the *17th Army* were rapidly shunted through the Crimea and into the southern Ukraine, where they helped bring the Soviet advance to a temporary halt (figure 53).

In contrast to the highly successful withdrawal from the Kuban bridgehead, the next major evacuation conducted on the eastern front, specifically that of the *17th Army* from the Crimea, would be a far more bitter experience. On 1 November 1943, Soviet troops severed the last overland links into the Crimea, thereby isolating the German and Romanian troops of the *17th Army* from the mainland. On the same

¹⁵ Glantz, *Forgotten Battles of the German-Soviet War*, 155.

day, other Soviet troops conducted landings on the east coast of the Crimea in the vicinity of Kerch. Although one lodgment was eliminated by a counterattack, a second was held and steadily expanded into a sizable bridgehead. Despite the incessant demands of his senior army commanders that the Axis troops in the Crimea should be evacuated, Hitler insisted that the peninsula be held. He cited concerns that the Soviets would use it to launch air raids against the Romanian oilfields and that its loss would exacerbate the faltering political relationship with Turkey, from which Germany received raw materials that were crucial to its continued war effort.¹⁶ Hitler's conviction to hold the Crimea was bolstered when Soviet efforts to break into the peninsula abated by early December and by the continued assurances of the commander-in-chief of the German Navy, Grand Admiral Karl Dönitz, that Axis naval forces could keep the *17th Army* supplied.

Initially, the notion that the *17th Army* could be kept supplied by sea appeared ill-founded, as Soviet submarines managed to sink two German transports, one small tanker, and one MFP during November.¹⁷ Thereafter, the situation improved during the next few months, with losses being confined to only two MFP sunk by submarines in December and a third succumbing to an air attack in January. Despite continued harassment by Soviet submarines and torpedo bombers, no ships were lost throughout February and March. The security of the Axis maritime supply lines permitted the safe transfer of one infantry division to the *17th Army* during January, followed by 45,000 tons of supplies and a second division in March. Based around the port of Odessa, Russia, five German air transport groups and three Romanian squadrons also played a crucial role in keeping the Crimea supplied during this period, establishing an air bridge that Soviet air units failed to disrupt.¹⁸

The situation for the beleaguered *17th Army* changed dramatically on 8 April 1944, when the Red Army commenced a large-scale offensive to finally liberate the Crimea. Against the 413,500 troops, 559 tanks and self-propelled guns, 5,982 guns and mortars, and 1,250 aircraft possessed by the Soviets, the *17th Army* mustered a ration strength of around 230,000 people, organized into five German and seven Romanian divisions and supported by approximately 100 armored vehicles and 200 aircraft. However, the effective strength of the *17th Army* was considerably less since the ration strength cited here included 65,000 Romanian troops whose waning morale and lack of modern equipment significantly reduced their effectiveness in combat. Also included in this strength were large numbers of German naval and *Luftwaffe* personnel, volunteer

¹⁶ Karl-Heinz Frieser, ed., *Germany and the Second World War*, vol. 8, *The Eastern Front, 1943–1944: The War in the East and on the Neighbouring Fronts* (Oxford, UK: Clarendon Press, 2017), 460–64.

¹⁷ The loss of the German transport vessel *Santa Fe* (4627 GRT) on 23 November was especially disappointing since it carried 12 assault guns that were badly needed by the *17th Army* to augment its limited antitank capabilities.

¹⁸ For example, between 5 November 1943 and 2 February 1944, a single German air transport group (*III Gruppe, Transportgeschwader 2*) conducted 3,113 supply sorties to the Crimea, during which only five Junkers Ju 52 transports were lost to all causes, including accidents.

Russian auxiliaries, civilians, and prisoners of war, all of whose contribution to the defence of the Crimea was marginal at best. The number of German Army personnel with the *17th Army* on 1 April actually amounted to only 94,602 troops.¹⁹ In consequence, the defenses of the Crimea rapidly crumbled, and within a few days the Axis troops, who sustained heavy losses within their combat units, were in headlong retreat back to the defenses surrounding the port of Sevastopol. Confronted by the swift deterioration of the Axis position in the Crimea, Hitler was obliged to approve the retreat. However, he demanded that Sevastopol be held regardless of circumstances and that only the wounded and noncombat personnel be evacuated.²⁰

Although the loss of the port of Odessa along the Ukrainian coast on 10 April compelled Axis shipping to utilize more distant Romanian harbors, a number of factors facilitated the success of the evacuation, which began on 11 April.²¹ First, a sufficient amount of Axis naval resources were available for the operation, including 17 large transports and numerous smaller craft, 4 Romanian destroyers and 2 gunboats, 1 large German minelayer, 17 submarine chasers, 13 motor minesweepers, and 13 motor torpedo boats. Second, the attempted Soviet naval interference of the evacuation convoys was limited and the remaining large ships of the Black Sea Fleet were still confined to port as per Stalin's previous orders. The sporadic efforts of Soviet motor torpedo boats and gunboats were warded off by their German counterparts. The only real threat came from Soviet submarines, and while several were deployed along the sea approaches of Sevastopol, only a few small vessels were sunk.²² Finally, Soviet aerial interdiction during the first weeks of the evacuation proved less effective than potentially could have been the case. As in the Kuban, most Soviet air assets were devoted to providing ground support, leaving only a small number of naval bombers and torpedo bombers devoted to antishipping strikes; as a result, only two large Axis transports were lost in air attacks during April.²³ Throughout this stage of the campaign, *Luftwaffe* fighters and antiaircraft batteries took a heavy toll of Soviet aircraft, providing effective coverage to both the convoys and harbor facilities, frequently disrupting incoming Soviet raids before they reached their targets.²⁴ Poor weather also

¹⁹ "OKH Org. Abt.-Iststärke des Feldheeres," T78, Roll 553, Frame 001057, NARA. Note that this figure includes all personnel of the units belonging to the *17th Army*, including those (wounded, on leave, etc.) who were not actually present in the Crimea at this time.

²⁰ Frieser, *Germany and the Second World War*, 483–86.

²¹ Notably, German and Romanian ships managed to evacuate 14,845 troops, 9,300 wounded, and 54,000 tons of materiel from Odessa before the port was lost.

²² The exception was the torpedoing by Soviet submarine *L-4* of the German tanker *Friederike* (7327 GRT), which was badly damaged and had to be towed back to port, northeast of Constanta, Romania, on 11 May; however, this ship was not directly involved in the evacuation.

²³ The transport *Alba Julia* (5700 GRT) was hit by a pair of bombs on 18 April; though temporarily abandoned, it was later towed back to Constanta where it was subsequently written off. The German tanker *Ossag I* (3950 GRT) was crippled by bombs while on its way to Sevastopol, later being scuttled off the Crimea coast.

²⁴ Concerning the air battle over the Crimea, see Christer Bergström, *Bagrations to Berlin: The Final Air Battles in the East, 1944–1945* (Hersham, UK: Ian Allen Publishing, 2008), 45–54.

restricted Soviet air operations and shielded convoy movements. As a result of these factors, from 14–27 April, the Axis naval forces managed to evacuate 71,238 personnel, including 28,394 Germans and 20,779 Romanians, at very little cost.²⁵

In contrast, the second stage of the evacuation proved far more costly. On 5 May, the Soviets commenced their final assault on Sevastopol and the Axis defenses soon collapsed. As the size of the bridgehead decreased, Axis air units were steadily withdrawn to the mainland, leaving both the ground forces and the evacuation transports with decreasing amounts of air cover until the last air units departed on 9 May. In contrast, Soviet aerial activity increased to new levels of intensity, starting with a raid by hundreds of Soviet bombers against the harbor facilities of Sevastopol on the night of 3–4 May, during which 2 submarine chasers, 1 tug, and 7 lighters were sunk. On 8 May, Hitler finally granted permission for the complete evacuation of the Crimea, and the remaining troops of the *17th Army* pulled back to the Chersonese Peninsula from where they were to be transported. Under artillery fire from shore and relentless attack by Soviet planes from the air, Axis transports suffered heavily. The worst losses occurred on 10 May, when two large transports packed with troops were sunk during an air raid, with approximately 8,000 of those aboard lost. Although plenty of shipping still remained, the final effort on 12 May to lift the tens of thousands of remaining troops directly from beaches badly failed because of the combination of heavy Soviet artillery fire and air attacks; a breakdown in communications between the naval commander, their subordinates, and the troops ashore; and thick smoke that prevented ships from approaching too close to shore. Even though sufficient space still remained on board ship for thousands more evacuees, during the early morning of 13 May, the Axis ships were compelled to give up and sail for home, abandoning thousands of troops to death and Soviet captivity.²⁶

Remarkably, despite its brutal circumstances and the losses involved, the second stage of the evacuation from the Crimea still managed to rescue large numbers of troops. At the cost of 8 large transports and at least 34 smaller vessels, virtually all of which were lost to air attacks, another 58,603 personnel (including 15,778 Romanians) were evacuated by sea between 28 April and 13 May.²⁷ In rough terms, this meant that the equivalent of at least four divisions were saved at the last moment for the Axis war effort.

There can be no doubt that the final Axis struggle to retain the Crimea was a debacle. It cost tens of thousands of casualties and all of the equipment of the *17th Army* that could have been better used elsewhere; however, in the adverse circumstances and constraints under which it was conducted, the naval evacuation portion of the

²⁵ The number of evacuees also included 15,055 Russian auxiliary volunteers, 2,559 prisoners of war, and 3,738 civilians.

²⁶ For the most detailed account of the final struggle for the Crimea, see Robert Forczyk, *Where the Iron Crosses Grow: The Crimea, 1941–1944* (Oxford, UK: Osprey Publishing, 2014), 310–36.

²⁷ The smaller vessels lost included 7 submarine chasers, 6 tugs, 18 lighters, and 3 harbor patrol boats.

campaign was comparatively successful. Of the *17th Army's* initial 230,000 personnel, as many as 129,851 people were evacuated by sea and a further 24,513 by air for a grand total of 154,364 personnel rescued or roughly two-thirds of those initially present.²⁸ Although the total number of troops lost will likely never be known with any certainty, many more troops escaped to fight another day, with sufficient cadres remaining to rebuild three of the five German divisions that had been present.

Most other German naval evacuations on the eastern front also achieved similar levels of success at rescuing valuable troops and equipment. When Finland signed an armistice with the Soviet Union on 19 September 1944, the allied German troops present were compelled to leave the country as part of the terms agreed to with the Soviets. By 26 September, German warships and transports hastily evacuated 4,039 soldiers, 3,356 wounded, 332 civilians, and more than 42,000 tons of materiel from southern Finnish ports. However, as part of the *20th Mountain Army*, most German troops were concentrated in the far north of Finland, where the lack of roads and rail lines prevented a rapid withdrawal back into northern Norway. Despite the threat of Soviet aircraft and submarines, many of the German troops and most of their equipment would instead be evacuated by sea; by the time the operation concluded on 31 January 1945, German naval forces had successfully transported 111,575 personnel, 15,170 horses, 284 artillery pieces, and 4,225 motor vehicles to safety.²⁹ Few ships were lost during the operation and at least two former divisions of the *20th Mountain Army* that had been safely evacuated were subsequently employed to shore up Germany's crumbling western front in early 1945.

Germany's maritime ability to supply and evacuate its land forces played an especially crucial role in the Baltic during late 1944 and early 1945. When the central portion of the eastern front collapsed in June 1944, the 600,000 troops of *Army Group North* found themselves isolated in Estonia and Latvia when Soviet tank spearheads reached the Baltic coast west of Riga a month later. Until a German relief operation was conducted several weeks later, the troops of *Army Group North*, who were themselves under heavy attack, found themselves entirely reliant on the German Navy for their supply. Fortunately, most of the major warships of the Soviet Baltic Fleet had been sunk in 1941 and those that remained were in no condition to challenge the three heavy cruisers and two dozen destroyers and torpedo boats the Germans could muster. Instead, aside from periodic submarine attacks, the primary threat to German maritime communications came from the Soviet Red Army Air Force, which

²⁸ Figures regarding the number evacuated tend to vary; those used here are taken from a variety of Romanian sources. Müller, *Das Deutsche Reich und der Zweite Weltkrieg*, 244–46, pegs the total evacuees at 159,302. Mark Axworthy, Cornel Scafes, and Cristian Craciunoiu, *Third Axis, Fourth Ally: Romanian Armed Forces in the European War, 1941–1945* (London: Arms and Armour, 1995), 136, cites 42,190 Romanian troops as being evacuated.

²⁹ Müller, *Das Deutsche Reich und der Zweite Weltkrieg*, 248–60.

vastly outnumbered German air assets in the region.³⁰ Despite this, circumstances were similar to those that had occurred in the Black Sea, with the preponderance of Soviet aerial activity being directed to ground support operations rather than the interdiction of German maritime traffic or the destruction of their ports. This lack of a focused and sustained Soviet interdiction campaign meant that, despite the periodic sinking of a transport or damage to a vital port, the Germans were able to keep the flow of troops and supplies moving. Subsequently, the German Navy was able to evacuate 108,825 people from Estonia (17–23 September), while simultaneously delivering 10,293 soldiers, 7,144 horses, 6,183 motor vehicles, and 239,000 tons of materiel to *Army Group North* (25 July–15 October), and evacuating another 198,448 persons from the port of Riga (23 September–11 October).³¹

The efforts of the German Navy continued into early 1945, when it was then tasked with not only maintaining the supply lines to *Army Group North* (now shifted into the Courland Peninsula, Latvia) but to a series of isolated pockets across the East Prussian and Pomeranian coasts that emerged in the wake of the collapse of the eastern front in January and February.³² Even more pressing was that these pockets became inundated with German refugees who had fled the advance of the Red Army and required evacuation to the west. Moreover, this had to be accomplished in the face of steadily intensifying Soviet air attacks on both shipping and ports, as well as a host of other problems, including shortages of fuel. Simultaneously, the final collapse of Germany was imminent, adding to command and control issues as well as problems with morale.³³

Despite mounting shipping losses and the occasional horrific loss of life, such as during the sinking of the *Wilhelm Gustloff* (1937) on 30 January or the *General von Steuben* (1923) on 10 February, the German Navy achieved a remarkable degree of success. The troops in the coastal pockets were kept supplied and fighting nearly until the end of the war, thereby tying down large numbers of Soviet troops and diverting them from the main advance into Germany.³⁴ More notably, up to 2 million refugees,

³⁰ German air strength in the area peaked at 321 aircraft in early September; the Soviets could field at least 2,640 planes. Frieser, *Germany and the Second World War*, 623, 636.

³¹ Müller, *Das Deutsche Reich und der Zweite Weltkrieg*, 260–61. For more information concerning events in the Baltic region, see Prit Buttar, *Between Giants: The Battle for the Baltics in World War II* (Oxford: Osprey Publishing, 2013).

³² For a detailed study of German naval operations in the Baltic during this period, see Howard D. Grier, *Hitler, Dönitz, and the Baltic Sea: The Third Reich's Last Hope, 1944–1945* (Annapolis, MD: Naval Institute Press, 2007).

³³ For the personal insights of the German soldiers regarding the importance of the maritime lifeline, see Hans Schäufler, *Panzers on the Vistula: Retreat and Rout in East Prussia, 1945* (South Yorkshire, UK: Pen and Sword Books, 2018).

³⁴ The strength of the Soviet forces committed to the East Prussian Operation (13 January–25 April 1945) alone amounted to roughly 1.7 million personnel. David M. Glantz and Johnathan House, *When Titans Clashed: How the Red Army Stopped Hitler* (Lawrence: University Press of Kansas, 1995), 300. The two Soviet fronts containing the German troops in Courland likely contained hundreds of thousands of additional personnel.

military personnel, and wounded were safely evacuated to the west at the cost of comparatively few losses.³⁵

Although the German naval evacuations on the eastern front could never prevent Germany's ultimate defeat during the Second World War, and were usually conducted in the context of larger military disasters, their success in evacuating large numbers of personnel and equipment was nonetheless remarkable, especially when one bears in mind the operational circumstances in which they transpired. While the bravery and actions of the officers and enlisted of the German Navy (and the Romanian Navy in the Black Sea) certainly played a major role in the success of these evacuations, ultimately this would not have been enough in isolation. Crucial to the outcome of these operations were the weaknesses and failures of the Soviet forces involved, specifically the lack of large surface warships that could contest control of sea lanes and the inability or unwillingness to utilize superior Soviet aerial assets in a concerted interdiction campaign. If these factors had been different, it seems likely that the German naval evacuations on the eastern front would have unfolded in a far different manner.

³⁵ V. E. Tarrent, *The Last Year of the Kriegsmarine, May 1944–May 1945* (London: Arms and Armour Press, 1996), 225, estimates the loss of life as totaling only 1 percent of all those evacuated during the final months of the war.

CHAPTER SEVENTEEN

Against All Odds

Turkish Amphibious Operation in Cyprus, 20–23 July 1974

Serhat Güvenç and Mesut Uyar

Turkish *Yıldız-70 Atma 4* (Star-70 Drop 4) was a three-pronged operation involving amphibious, parachute, and airborne (helicopter) assaults on Cyprus.¹ It was conceived and conducted as Turkey's military response to the coup on the island in July 1974. Having considered the coup as a way station to *Enosis*, the island's unification under Greek rule, Ankara acted decisively to prevent such an outcome at any cost. Turkey's primary political objective was to deny Greece full control over a strategically important island in the Eastern Mediterranean.

The operation was undertaken against a background of steadily improving Turkish military capabilities for adjacent power projection. The campaign stood as the culmination of a partial transformation of the Turkish military from a territorial defense force to that which could fight the Cold War as a part of a grand alliance to an expeditionary organization to meet national contingencies independently within a decade. The partial transformation was driven by two factors: the international *détente* and the Cyprus problem. While the former justified enhancement of conventional military capabilities in step with North Atlantic Treaty Organization's

¹ Place names on Cyprus have been standardized to the preferred terms to prevent confusion between switching between Turkish and Greek Cypriot place names for the same locations. Exceptions to this general rule include geographical features and other place names associated with battlefields, in which they are often named after other features found elsewhere, particularly Turkish place names for battlefield features (often named after existing places in Turkey).

(NATO) Flexible Response Strategy, the latter provided the Turkish military with a sense of purpose beyond its NATO commitments.²

The campaign was conducted in two phases with a relatively long operational pause in between due to dramatic political changes at both national and international levels. The campaign began on 20 July 1974 only to pause on 22 July and then resume on 14 August 1974 for three more days. In other words, the campaign period covered almost 30 days, yet the operations themselves were packed into 6 days only. It involved 37,479 servicemembers from four Armed Services.³ The campaign secured Turkish control over nearly one-third of the island where a full-strength Army Corps remains deployed since 1974.

BACKGROUND

The establishment of the Republic of Cyprus in 1960 arguably represented a fallback position for all protagonists involved. While Greece and the Greek Cypriots seemingly retreated from their demands for *Enosis*, Turkey and the Turkish Cypriots settled for independence of the island as a second-best option to their favored solution—*Taksim*, a partition of the island between Turkey and Greece (figure 54).⁴ The constitution of the new republic provided for a complicated mechanism of checks and balances devised to prevent the Greek Cypriot community's domination over the Turkish Cypriots, which accounted for around slightly less than 20 percent of the population.⁵

The independence and constitutional arrangements of the republic were underwritten by Britain, Greece, and Turkey, who were, as guarantor states, empowered to act collectively or individually with the sole aim of restoring the state of affairs created by the founding treaties. The treaties that established the Republic of Cyprus also allowed the symbolic return of Turkish troops to the island for the first time since 1878. A 650-strong Turkish Treaty Regiment (*Kıbrıs Türk Kuvvetleri Alayı*, KTKA) was

² For more on NATO's Flexible Response Strategy, see John S. Duffield, "The Evolution of NATO's Strategy of Flexible Response: A Reinterpretation," *Security Studies* 1, no. 1 (1991): 132–56, <https://doi.org/10.1080/09636419109347460>.

³ M. Şükrü Tandoğan, *Kıbrıs Barış Harekatı: Birlikler ve Muharebeleri* (Ankara, Turkey: Türkiye Muharip Gaziler Derneği, 2015), 74. In 2006, Minister of Defense Vecdi Gönül stated that there were 38,183 combat veterans of the Cyprus campaign in response to a written question by a member of parliament. "İzmir Milletvekili Sayın Enver Öktem tarafından verilen 7/11579 sayılı yazılı soru önergesinin cevabı," Milli Savunma Bakanlığı, 2005/7082-ŞŞY-CS (58), 17 January 2006. Tekin Kadercan claimed that official records in 1977 showed about 27,000 troops were involved in ground operations. See Tekin Kadercan, *610 Gerçek Gün* (Istanbul, Turkey: Hüsnütabiat Matbaası, 1978), 267. In addition to an army, navy, and air force, the Turkish armed forces also included *Jandarma* (gendarmerie) in times of war. Hence, *Jandarma* commando battalions and aviation units also saw action in Cyprus. Ahmet Çermeli and Halil Atabey, *Jandarma Genel Komutanlığı Tarihi: Türk Harp Tarihinde Jandarma*, vol. 2 (Ankara, Turkey: Jandarma Genel Komutanlığı, 2002), 327–48. See also Erdiç Ural, "Kıbrıs Barış Harekatında Jandarma Birlikleri" (master's thesis, Hacettepe University, 2004).

⁴ For an attempt at a balanced treatment of the protagonists' views on the Cyprus problem, see James Ker-Lindsay, *The Cyprus Problem: What Everyone Needs to Know* (New York: Oxford University Press, 2011).

⁵ Nicolas D. Macris, ed., *The 1960 Treaties on Cyprus and Selected Subsequent Acts* (Mannheim, Germany: Bibliopolis, 2003), 20–22.



FIGURE 54
Map of Cyprus.
U.S. Central Intelligence Agency

deployed and initially colocated with a 950-strong Greek Treaty Regiment (ELDYK) near Cyprus's capital, Nicosia (*Lefkoşa*). The British military presence was confined to two sovereign bases in the south.⁶

Against all international agreements and arrangements, intercommunal violence broke out in December 1963.⁷ The Turkish government vocally announced its intention to resort to the military option to defend the Turkish Cypriot lives and political status, but the Turkish military certainly did not have the training, the expertise, or the resources to plan and conduct an amphibious operation. The KTKA abandoned its peacetime garrison and relocated in the Turkish sector of Nicosia. Also, the Turkish Cypriot underground resistance organization (*Türk Mukavevemet Teşkilatı*/Turkish Resistance Organization, or TMT) came out into the open.

Apprehensive of a war between two NATO allies, the U.S. president, Lyndon B. Johnson, sent a harshly worded letter to Turkish Prime Minister İsmet İnönü to

⁶ Macris, *The 1960 Treaties on Cyprus and Selected Subsequent Acts*, 23–24, 139–88; and Kemal Yamak, *Gölgede Kalan İzler ve Gölgeleşen Bizler* (Istanbul, Turkey: Doğan Kitap, 2006), 152–56.

⁷ See Ker-Lindsay, *The Cyprus Problem*, 31–34.

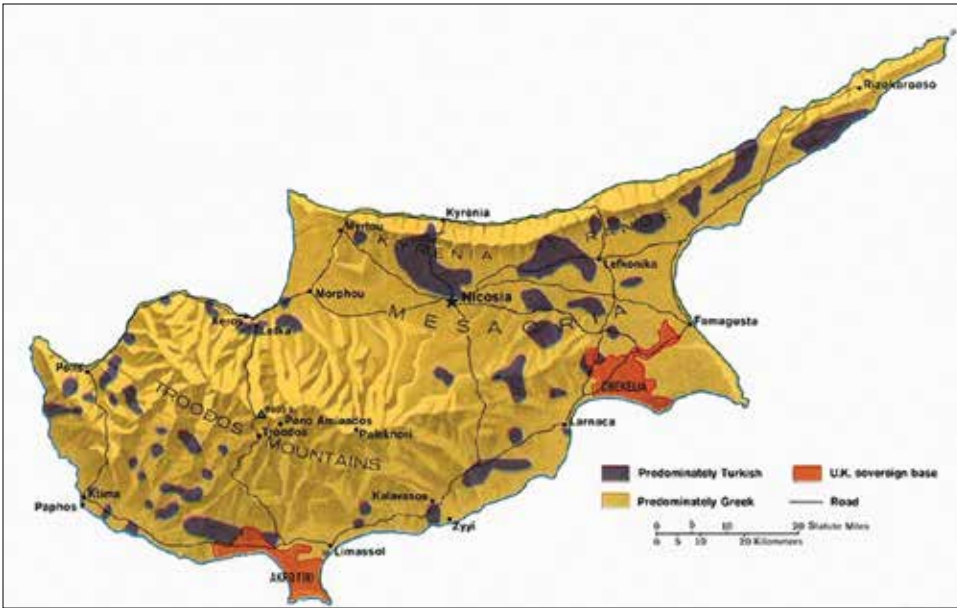


FIGURE 55
 Map of Turkish and Greek Cypriot enclaves.
Turkish Heritage Organization, adapted by MCUIP

stop unilateral Turkish military action.⁸ İnönü had no choice but to backtrack on the threat of military intervention. Although President Johnson’s letter had an immediate impact, it left a deep scar on U.S.-Turkish relations as the Turkish government dropped the threat of military intervention. In 1964, the Turkish Cypriots were effectively excluded from the government. Many had to abandon homes in mixed villages to live in Turkish enclaves scattered across the island. The largest Turkish Cypriot enclave was the one between Kyrenia (*Girne*) in the north and Nicosia, which was called “the Triangle” by Turkish military planners (figure 55).

During 1963–64, the TMT captured the strategic Kyrenia pass overlooking the northern shores of the island and the Kienyoli plain in the south.⁹ None of the Turkish enclaves had access to the sea with the exception of highly isolated Kokkina (*Eren-*

⁸ Johnson warned İnönü of the consequences of such a unilateral act for which the U.S.-supplied military hardware could not be used without American consent according to Article IV of the 1947 Agreement on Aid to Turkey. He also questioned NATO’s commitment to Turkey’s security in case Turkish intervention had triggered a Soviet assault on it. George McGhee, *The US-Turkish-NATO Middle East Connection: How the Truman Doctrine and Turkey’s NATO Entry Contained the Soviets* (New York: Palgrave Macmillan, 1990), 42.

⁹ Halil Sadrazam, *Kıbrıs’ta Mitlerden Gerçeğe: İlk Silah Sesleri*, vol. 1 (Lefkoşa, Cyprus: Söylem Yayınları, 2013), 404–5.

köy).¹⁰ To prevent intercommunal fighting, Britain and the United States proposed a NATO-led peacekeeping force, but Makarios III refused it.¹¹ After much bargaining and consultation, he accepted a United Nations-led force. Therefore, the United Nations Security Council (UNSC) set up a peacekeeping mission, United Nations Peacekeeping Force in Cyprus (UNFICYP), in 1964.¹²

PLANNING CONSIDERATIONS

Shortly after the crisis, by using readily available British sources and employing Turkish Cypriots, the Turkish General Staff prepared a reference book that provided necessary geographic and technical details for future operational planning. In 1964, 10 possible landing beaches and routes were confirmed and examined for planning an expeditionary operation to Cyprus (figure 56).¹³ Similarly, Turkish assessments during the 1963–64 crisis more or less defined the political requirements of a military intervention in Cyprus. Prime Minister İsmet İnönü concluded that “Turkey’s intervention . . . could only be successful if Turkey moved quickly and established a bridgehead within a few days.”¹⁴ Greece, in the meantime, infiltrated thousands of troops and, by 1967, Greece had enough troops to field two infantry divisions on the islands.¹⁵

Cyprus only began to draw more serious military attention after the 1967 crisis, which was unleashed by a Greek Cypriot attack on two Turkish Cypriot villages and ended with Greece withdrawing its illegally infiltrated troops from the island. The Turkish government once again vocally threatened to intervene and then backedpedaled under U.S. pressure. The Turkish Navy was again in port in Mersin, Turkey, 64.3 kilometers (km) across from Cyprus, supposedly poised for amphibious operations. The requirements for a successful military operation crystallized during a meeting at the Turkish General Staff in Ankara on 16 November 1967. Commander of the Army General Ahmet Refik Yılmaz argued that “a successful operation in Cyprus required at least fifty tanks and the fielding of a corps.”¹⁶ The Turkish military had already developed an understanding on the pros and cons of each venue of approach to Cyprus

¹⁰ Indeed, in August 1964, the Turkish Air Force carried out strikes to save Kókkina from falling into the hands of the Greek Cypriots. Sadrazam, *Kıbrıs'ta Mitlerden Gerçeğe*, vol. 1, 678–86.

¹¹ Born Mikhail Khristodolou Mouskos, Makarios III was a Greek Cypriot clergyman and politician who served as the first president of Cyprus, leading the struggle for *Enosis*. During three terms as president, Makarios III survived four assassination attempts and a coup d'état.

¹² Under Security Council Resolution 186: The Cyprus Question, this force was instructed to “use its best efforts to prevent a recurrence of fighting and, as necessary, to contribute to the maintenance and restoration of law and order and a return to normal conditions.” Z. M. Nejatigil, *Our Republic in Perspective* (Nicosia, Cyprus: Tezel Printing, 1985), 7.

¹³ Genelkurmay İstihbarat Başkanlığı [Turkish General Staff Intelligence Division], *Kıbrıs Broşürü No. 1* (Ankara, Turkey: Genelkurmay Basımevi, 1964), annex 9, 22.

¹⁴ Suha Bölükbaşı, *The Superpowers and the Third World: Turkish American Relations and Cyprus* (Lanham, MD: University Press of America, 1988), 68.

¹⁵ Michael Harbottle, *The Impartial Soldier* (London: Oxford University Press, 1970), 168–71.

¹⁶ Bölükbaşı, *The Superpowers and the Third World*, 135.

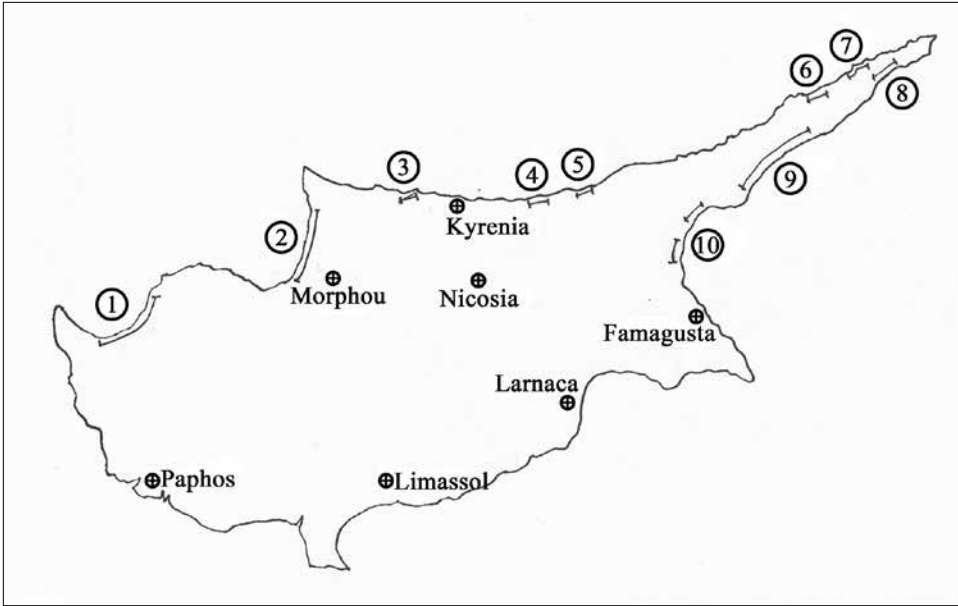


FIGURE 56
Map of possible landing sites.
Courtesy of the authors

in case of an intervention. A staff study identified Famagusta Bay as offering the most suitable landing beaches for an amphibious assault and subsequent move inland.¹⁷

Turkey embarked on an ambitious program to develop capabilities for future contingencies in Cyprus. The Turkish Navy launched an indigenous landing craft building program and the Landing Craft Command (*Çıkarma Gemileri Komutanlığı*) was activated in Gölcük, Turkey, on the Sea of Marmara in 1965. The command was relocated to Mersin in August 1973. Also, in 1973, the Turkish Navy received a decommissioned *Terrebonne Parish*-class landing ship, tank (LST) from the United States in June 1973 (figure 57). This particular LST marked a quantum leap in Turkey's amphibious capabilities.¹⁸

The Turkish Air Force's airlift capability also received a boost with arrival of the Lockheed C-130E Hercules and the Transall C-160D transport aircraft from the United States in the 1960s and Germany in the 1970s, respectively. The Turkish Army

¹⁷ Lütfü Onganer, *Jeopolitik* (Istanbul, Turkey: Harb Akademileri Basımevi, 1965), 104–5; and Yamak, *Gölgede Kalan İzler ve Gölgeleşen Bizler*, 260, 283.

¹⁸ Çıkarma Birlikleri Filotilla Komodorluğu, *Bilgi Broşürü* (Izmir, Turkey: privately published, 1982), 1–2; Nejat Tümer, *Bir Komutan Bir Yaşam* (Ankara, Turkey: Deniz Kuvvetleri Komutanlığı Basımevi, 2008), 76–79; and Soner Polat, ed., *Türk Deniz Kuvvetleri: Denizlerin Koruyucuları* (Ankara, Turkey: Deniz Kuvvetleri Komutanlığı Basımevi, 2003), 251–52.



FIGURE 57
USS *Terrebonne Parish* (LST 1156) inbound to Valletta, Malta, 29 May 1967.
Brian Miller, courtesy of NavSource

acquired air mobility with the arrival of utility helicopters—Agusta-Bell AB-204, AB-205, and AB-206—bought from Italy in the early 1970s.¹⁹ The Turkish Army's firepower and mobility had already improved with the American supply of M48 Patton main battle tanks (MBTs) and M113 armored personnel carriers (APCs) in an era of renewed emphasis on conventional military capabilities in the alliance after the Cuban missile crisis (October 1962).

The partial transformation of the Turkish military called for activation of new units earmarked for national contingencies by diverting troops and equipment from NATO-assigned units. However, they were largely skeleton units to be brought up to war footing with a 15-day notice.²⁰ In a similar frame of mind, three national corps headquarters were inaugurated in Trabzon (XI Corps), Ankara (IV Corps), and Adana (VI Corps). It became evident as early as 1966 that VI Corps would assume the responsibility of a future Cyprus campaign.²¹

In addition to the formation of non-NATO assigned units, the partial transfor-

¹⁹ Kaya Konakkuran, "Mucize Yaratılan bir Proje Çalışması: C-160 Transall Ulaştırma Uçaklarının Türk Hava Kuvvetlerine Kazandırılmasının Hikayesi," in *Askeri Havacılıkta 100 Yıllık Türk/Alman İşbirliği* (Ankara, Turkey: Mönch Media, 2011), 127–31.

²⁰ Cemal Tural, *Kara Orduları ve Hedefleri* (Ankara, Turkey: Deniz Kuvvetleri Komutanlığı Basımevi, 1964), 12.

²¹ "Yeni Kurulan 6. Kolordu Kıbrıs'a Müdahale için Kullanılacak," *Yeni Gazete*, 25 September 1966.

mation involved a shift of focus away from general purpose forces to expeditionary (or specialized) forces. Therefore, the Commando Brigade (*Komando Tugayı*) with three battalions was activated in 1970, and the Airborne Brigade (*Hava İndirme Tugayı*) with four battalions and a field artillery battery was activated in 1971. These two elite units of the Turkish Army, along with the *Amfibi Deniz Piyade Alayı* (Navy Amphibious Regiment) with two battalions, were activated in 1973 to spearhead the military campaign in Cyprus.²²

Establishing specially tailored units and training officers dedicated to carry out prospective Cyprus operations turned out to be a sound decision. However, the tight compartmentalization between NATO and non-NATO organizations and obsessive secrecy created unexpected shortcomings. The First Army acted as a NATO unit that was used to host regular NATO exercises, including amphibious and airborne components. For example, Exercise Deep Furrow 73 was organized and carried out in northeast Greece and Turkish Thrace between 20 and 29 September 1973. The exercise involved more than 50,000 soldiers, sailors, and air personnel from the United States, Britain, Turkey, and Greece. Turkish staff officers worked with their allied counterparts, including the Greeks, to prepare plans, and the First Army units actively conducted the amphibious operation and supported the airborne one. Although NATO and the United States were accused of providing training and knowledge to the Turks during Deep Furrow 73, in reality, no attempt was made to enlist help from the First Army and its experienced staff officers.²³

The contingency plans for Cyprus had first been drafted in 1967. As a big island with a long coastline, Cyprus was vulnerable to seaborne attacks. The first approved plan of the operation was called Operation Yıldız-70 (Star-70). It was solely an amphibious operation without an airdrop component. Turkish planners picked the beaches located between Famagusta Bay (*Magosa*), Cyprus, and Cape Neta (*Taşlıca*), Turkey, in the Karpas Peninsula for two reasons. First, that part of the island offered the most suitable beaches for an amphibious assault. Second, once the beachhead was secured on any of these beaches, the follow-on forces could take advantage of the terrain immediately inland from the beaches. The adjacent Messaria Plain in Greece allowed rapid maneuvering to reach their main objective, Nicosia, the political center of gravity of the Greek Cypriots.²⁴

Under Yıldız-70, the 39th Infantry Division and the Commando Brigade would be brought on shore in the first echelon on D-day (figure 58). They were tasked to

²² I. Neş'et İkiz, *Bir Ada, Bir Dava, Bir Savaş* (Istanbul, Turkey: Alfa Yayınları, 2007), 97, 100–1, 105–6; Muzaffer Sever, *20 Temmuz 1974: En Uzun Gece* (Istanbul, Turkey: Kastaş Yayınları, 2010), 35; Mesut Günsev, *20 Temmuz 1974: Şafak Vakti Kıbrıs* (Istanbul, Turkey: Alfa Yayınları, 2004), 134–36; and Mustafa Başel, *3ncü Komando Bölük Kıbrıs'ta Beni Bırakma Komutanım* (Istanbul, Turkey: Kastaş Yayınları, 2016), 12–15.

²³ LtGen Muzaffer Sever (Ret), interview with authors, 19 December 2017, Levent, Istanbul; "Nato Activities: Deep Furrow '73," *Armies & Weapons*, no. 9, January–February 1974, 48–50; and Ugo Mazza, "Operation Attıla," *Armies & Weapons*, no. 14, November–December 1974, 28–33.

²⁴ Genelkurmay İstihbarat Başkanlığı, *Kıbrıs Broşürü No. 1*, annex 9.

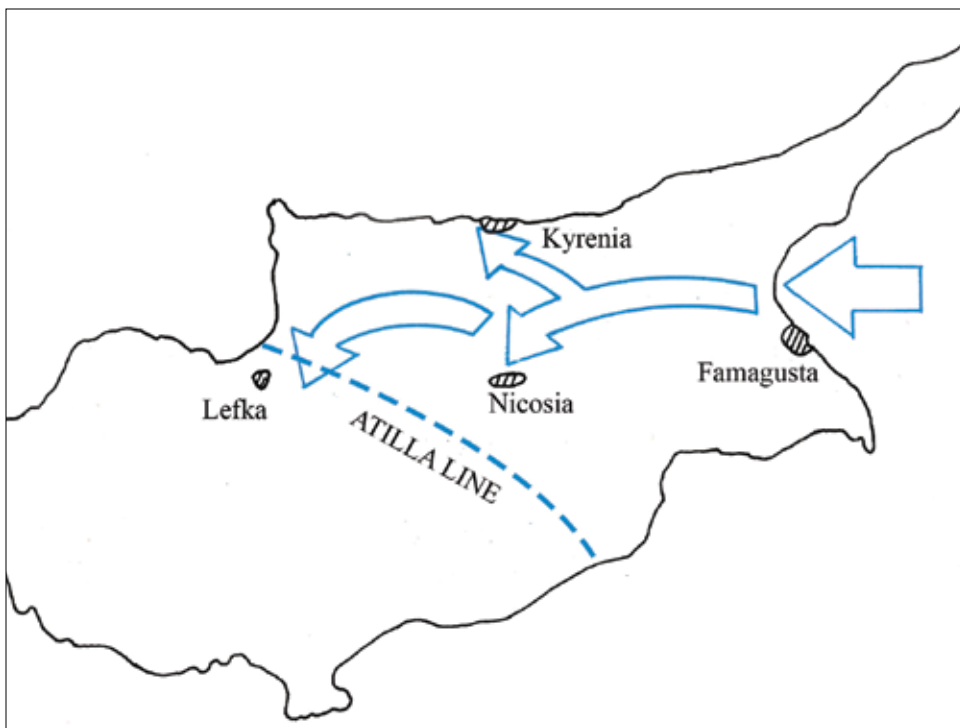


FIGURE 58
Map of Yıldız-70.
Courtesy of the authors

secure the beachhead within 48 hours (on D+2). The follow-on echelon would consist of the 28th Infantry Division and the 23d Infantry Brigade to arrive on D+7. Their planned task was to advance all the way to the Phase Line Attila by D+10.²⁵ Phase Line Attila stretched from Yayla Köy (Syrianochori) in the north to Larnaca in the south. Once this line was secured, VI Corps would stand ready to execute plans to capture the rest of the island.²⁶

Yıldız-70's finalization coincided with the rapid qualitative and quantitative improvement in Turkish Armed Forces' (TAF) power projection capabilities, particularly by air. Hence, Yıldız-70 had to be updated quickly. However, an unexpected development dictated rewriting the whole plan from scratch. A Turkish Army captain, who was seconded to the TMT, defected to the Greek Cypriot side with parts of the operational plan relevant to their assignment on the island. When the Greek

²⁵ The authors wish to point out that Attila is the English spelling and, in Turkish, the name is spelled correctly as Atilla. To assist our English-speaking readers, we will use the English spelling for the purposes of this discussion.

²⁶ Sever, *20 Temmuz 1974*, 35; KTBK [Turkish Cypriot Peace Corps Command], *Sebepler ve Sonuçlarıyla 1974 Kıbrıs Barış Harekâtı* (Lefkoşa, Cyprus: Özdilek Matbaacılık, 1996), 161–62.

Cypriot National Guard units showed telltale signs of their newly acquired intelligence by massing troops around Famagusta beaches and conducting coastal defense exercises, the Turkish General Staff realized that the operational plan had been compromised.²⁷

CHANGE OF PLANS

The Turkish planners had to give up on the shores of Famagusta and shift their focus to the north of the island around Kyrenia.²⁸ The amended plan of operation favored the administrative landing of troops over amphibious assault, which would follow landing of the Airborne Brigade and the Commando Brigade by parachute and helicopters in the Triangle airhead. The ability to sustain and support airborne troops was a vital consideration. This Turkish-Cypriot enclave not only offered relatively secure drop and helicopter landing zones due to the presence of KTKA and various TMT units but also logistical support. The half-finished Kirni dirt airstrip also assisted in this effort. The airhead would be consolidated and expanded toward the Dikomos (Dikmen) in the east and the Karmi (Karaman) Forests in the west on the Pentadaktylos (Five Fingers) in the Kyrenia Mountains. Securing the high ground opposite to the landing beach was crucial to capture the city of Kyrenia and its beaches. Then, the follow-on forces of the 39th and 28th Infantry Divisions and 23d Infantry Brigade would come ashore with administrative landings to expand the area under Turkish military control up to Phase Line Attila as per Yıldız-70. The amended plan was named Yıldız-70 Atma-1 (figure 59).²⁹

Amphibious assault figured again in the fourth amendment to Yıldız. The work on Yıldız-70 Atma-4 began in 1973. When the Greek junta engineered a coup against President Makarios on the island, Yıldız-70 Atma-4 was still a draft pending the approval of the Turkish General Staff. The Yıldız-70 Atma 4 planning directive broadly identified the shores between Nisída Glykiótissa (Snake Island) and Karavas on the north side of Cyprus for amphibious assault. The city of Kyrenia and its eastern shores were, on the other hand, strictly off limits for the assault phase due to the heavy concentration of Greek Cypriot defenses.³⁰ In the first phase of the amphibious assault, the Navy Infantry Regiment and 50th Infantry Regimental Combat Team of the 39th Infantry Division would come ashore with support elements, including field artillery,

²⁷ Sever, *20 Temmuz 1974*, 27; Yamak, *Gölgede Kalan İzler ve Gölgeleşen Bizler*, 282–83; and Halil Sadrazam, *Kıbrıs'ta Mitlerden Gerçeğe: Birinci Harekat, Temmuz 1974*, vol. 3 (Lefkoşia, Cyprus: Söylem Yayınları, 2013), 1066.

²⁸ Mahmut Boğuşlu, who was the chief of staff of VI Corps in July 1974, argued that availability of utility helicopters made such a change of geographic focus possible. MajGen Mahmut Boğuşlu (Ret), interview with authors, 8 August 2007, Harbiye, Istanbul. See also Ali Armağan, *Galiba Haddimi Aştım* (Istanbul, Turkey: Tekin Yayınevi, 2005), 120–22.

²⁹ Atma (“Drop” in English) signifies incorporation of the air drop into the plans. Sever, *20 Temmuz 1974*, 37–38; KTBK, *Sebepler ve Sonuçlarıyla 1974 Kıbrıs Barış Harekatı*, 162; and Sadrazam, *Kıbrıs'ta Mitlerden Gerçeğe*, vol. 3, 1066.

³⁰ “İsim Karışıklığı Yok,” *Cumhuriyet*, 3 August 1989.

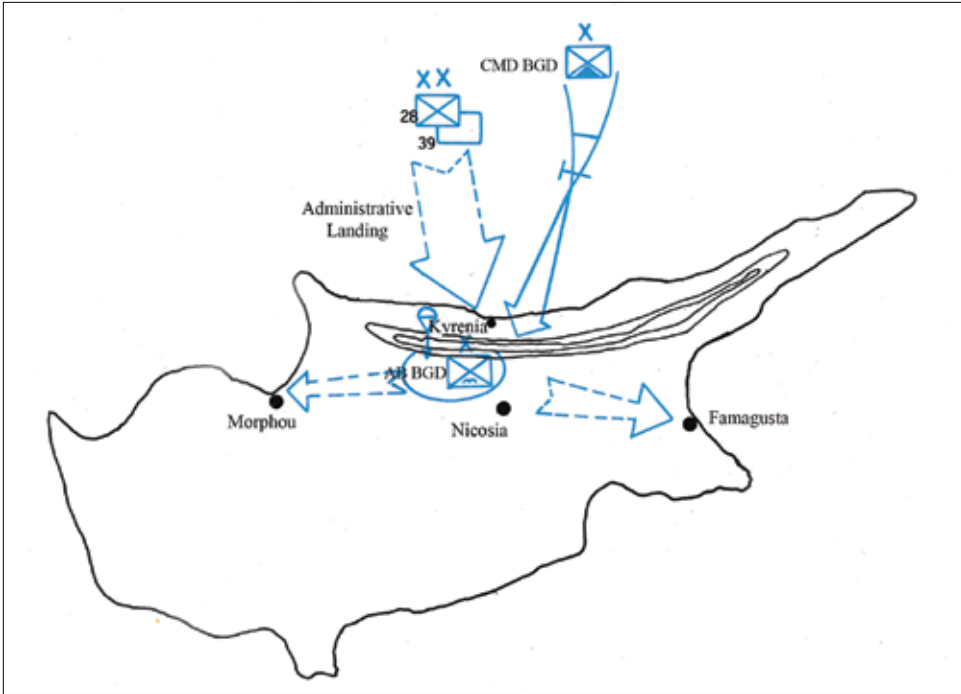


FIGURE 59
Map of Yıldız-70 Atma-1.
Courtesy of the authors

armor, and engineering detachments. They were to secure and consolidate the beachhead and link up with forces in the airhead on D-day, or D+1 at the latest.

The drop zones (DZs) were to be marked and secured by the KTKA and Turkish military forces. VI Corps forward headquarters were to be flown by helicopters to the Triangle to assume overall command of the ground operations on the island. The 230th Motorized Infantry Regiment was the first unit of the 28th Infantry Division earmarked for deployment. The remaining units of the two divisions, their armored and mechanized units in particular, would be brought to the island to secure the Phase Line Attila. Although the operation was phased, no interruption or pause between phases was provided for in the plans (figure 60).³¹

According to their doctrine, the Turks should have to put into practice whatever was written in the Turkish translations of the U.S. manuals for amphibious operations.³² In reality, however, Turkish staff officers were well aware that Cyprus was

³¹ Sever, *20 Temmuz 1974*, 39–42; KTBK, *Sebepler ve Sonuçlarıyla 1974 Kıbrıs Barış Harekati*, 162–63; and Sadrazam, *Kıbrıs'ta Mitlerden Gerçeğe*, vol. 3, 1069–70.

³² *ST 60-5 Amfibik Harekat Hücum Çıkmalarında Tabur* [Turkish translation of *Amphibious Operations Battalion in Assault Landings*, FM 60-5 (1951)] (Istanbul, Turkey: Deniz Kuvvetleri Komutanlığı Basımevi, 1957); and *DHA 6 Amfibi Harekat Doktrini* (Istanbul, Turkey: Deniz Harp Akademisi Neşriyatı, 1967).

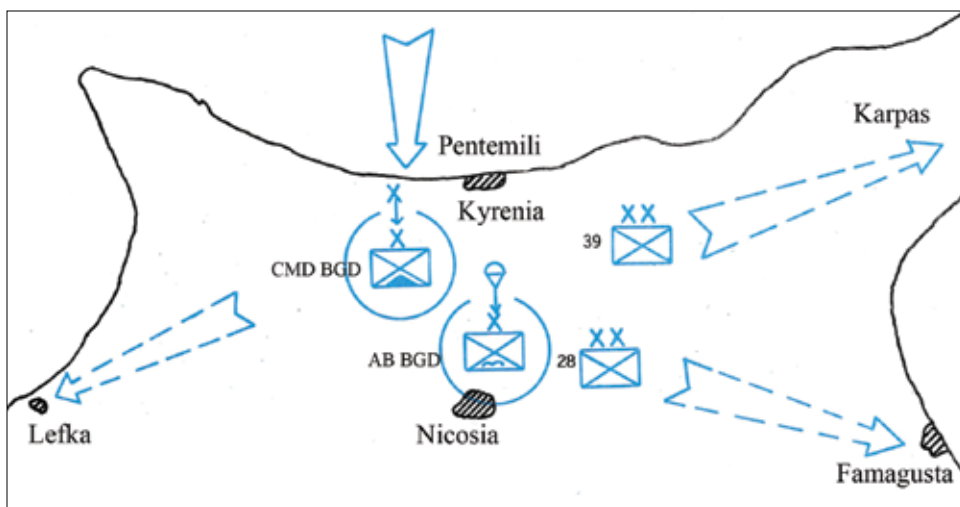


FIGURE 60
Map of Yıldız-70 Atma-4.
Courtesy of the authors

more like the Normandy landings than those in the Pacific. Their campaign would not take place in a political vacuum either. Consequently, they could not rely on gradual or methodical build-up of strength, as progress of the campaign would be susceptible to fast-paced political developments both at national and international levels. Working with time constraints, the Prussian/German influence on Turkish military culture that favored operations over logistics resulted in a near obsession with political and strategic surprise.³³ Naturally, it dictated a maneuverist approach over methodical approach.³⁴ The operational plan emphasized sustained flow and movement of forces to link up with the airhead rather than building a lodgment on the beach.

POLITICAL CONTEXT

Previous crises on the island brought the two NATO members with elected governments into conflict. This time, however, the military junta in Greece was up against the democratically elected government led by left-of-center prime minister Bülent Ecevit in Turkey. Consequently, the prevailing political conditions were in favor of Turkey for the first time in a decade. Additionally, Moscow was unsettled with the prospects of the island falling into the hands of the strongly anti-Communist Greek junta. Washington, for its part, was being consumed by the Watergate scandal at the

³³ Mahmut Boğuşlu, *1960-1978 Olayları: Anılar-Yorumlar* (Istanbul, Turkey: Kastaş Yayınları, 1995), 138.

³⁴ As such, the Turkish campaign for Cyprus was even considered a precursor to the operational maneuver from the sea (OMFTS) concept of the U.S. Marine Corps. See Maj Adrian W. Burke, "The Turkish Invasion of Cyprus: A Forerunner of OMFTS," *Marine Corps Gazette* 84, no. 3 (March 2000): 81-89.

time and the ability of the U.S. government to forecast and respond to the crisis was seriously crippled.³⁵ The European Community had already frozen its association with Greece and the junta's international isolation provided Ankara with a rare window of opportunity to change the status quo on the island.³⁶

To this end, the Turkish troops had to capture and hold a sizable chunk of territory with unhindered access to the sea. Under the 1960 Treaty of Guarantee, Ankara was obliged to consult other guarantors before taking any unilateral action. Because Greece was the perpetrator of the coup and could not be counted on for joint military action, Prime Minister Ecevit flew to London to probe for the prospects for cooperation with Britain in dealing with the coup on the island on 16 July 1974. The London trip helped Turkey smokescreen its military preparations for the campaign. Before he left for London, Ecevit set the D-day for 20 July 1974. It was a Saturday, and he deliberately picked that day to keep the window of opportunity open until the Turkish military achieved its objectives on the island.³⁷

It was calculated that the UN Security Council (UNSC) could convene on the next Monday at the earliest. In previous international crises, the UNSC called for ceasefire or cessation of hostilities within 48 hours. Counting also on the eight-hour time difference between Ankara and New York, the Turkish planners hoped that they would not be required to observe a cease-fire until the late hours of the following Wednesday. It should also be noted that Phase Line Attila included Larnaca to be exchanged as a territorial concession with political concessions from the Greek Cypriots in the future diplomatic negotiations.³⁸

COMBAT READINESS AND TASK ORGANIZATION

The army units committed to the Cyprus campaign needed 8–14 days to be brought up to full strength; but under the circumstances, they were given only 4 days to finalize their preparations.³⁹ This decision had several major consequences. First, troops

³⁵ For more on Watergate, see “Select Committee on Presidential Campaign Activities (The Watergate Committee),” United States Senate, accessed 24 April 2020.

³⁶ The term *European Community* (EC) was known during the period 1957–93 as the European Economic Community (EEC) or Common Market and served to integrate the economies of Europe. The term also refers to the European Communities made up of the EEC, the European Coal and Steel Community (dissolved in 2002), and the European Atomic Energy Community (Euratom). In 1993, the three communities were subsumed under the European Union (EU). The EC then became the principal component of the EU until 2009 when the EU legally replaced the EC. Fionna B. Adamson, “Democratization and Domestic Sources of Foreign Policy: Turkey in the 1974 Cyprus Crisis,” *Political Science Quarterly* 116, no. 2 (2001): 277–303; and Jan Asmussen, *Cyprus at War: Diplomacy and Conflict during the 1974 Crisis* (London: I. B. Tauris, 2008), 21–89.

³⁷ Ecmel Barutçu, *Hariciye Koridoru: Hatıralar (21. yüzyıl yayımları)* (Ankara, Turkey: 21 Yüzyıl Yayınları, 1999), 70.

³⁸ Ali Satan and Erdoğan Şentürk, eds., *Tanıkların Diliyle Kıbrıs Olayları, 1955–1983* (Istanbul, Turkey: Tarıhçi Kitabevi, 2012), 546.

³⁹ Boğuşlu, *1960–1978 Olayları*, 136.

were exhausted when they set foot on Cyprus because they had to squeeze 8–14 days of mobilization work into only 4 days. Some of the ships left the Mersin port in such a hurry that their loads had been badly stowed.⁴⁰

Second, airborne and parachute units in particular arrived on the island without their support weapons due to weight considerations. The 1st Battalion, 230th Infantry Regiment, offers another case in point. It was a motorized regiment endowed with substantial organic combat support. However, because it was attached to the Commando Brigade as its fifth battalion, it had to leave its heavy weaponry behind for air mobility. Similarly, the first echelon of the amphibious assault included modest tank and mechanized capability including 15 M47 MBTs and 20 M113/M106 APCs.⁴¹

Third, the Army Command issued emergency assignment orders for officers and noncommissioned officers who were supposed to report for duty within 24 hours to their new units. Such new assignments in most cases hindered rather than improved unit cohesion and command. Similarly, a task force headquarters was superimposed over the two regiments in the first amphibious assault wave: the 50th Infantry and Navy Amphibious Infantry Regiments. Brigadier General Süleyman Tuncer, who had never served in Cyprus-related troop or staff assignments, was appointed to command the Task Force *Çakmak*. His headquarters staff were put together from disparate units within 24 hours as well. The first amphibious assault wave was thus to be committed to the battle with a commander and staff unfamiliar with the terrain and units under their command.⁴² In addition, some units such as the Navy Amphibious Infantry Regiment and the Airborne Brigade were issued new types of weapons, trading old M1 Garand and G1-FAL or *Fusil Automatique Leger* (light automatic) German rifles with the German G3 (Gewehr 3) just before the campaign. Both units were also issued M72 LAWs (light antiarmor weapons) and M79 grenade launchers. Nominally, such weapons represented a qualitative improvement, but their effectiveness was questionable in the hands of soldiers with very limited type training and, in the case of rifles, poor zeroing.⁴³

Fourth, the mid- and low-ranking officers had very little, if any, situational awareness. Most regimental- and battalion-level commanding and staff officers did not have access to the Yıldız-70 Atma 4 plan of operations. Colonel Muzaffer Sever, the G-2 (intelligence) of VI Corps, claimed that the G-3 (operations) forgot to send a copy of the plan to the 39th Infantry Division. Consequently, Sever had to outline it to the

⁴⁰ Vecdet Ertak Gürpınar, *Genç Bir Asker Kıbrıs ve Barış Harekatı* (Istanbul, Turkey: Kastaş Yayınları, 2015), 124–33; Haluk Üstüngen, *mcı Komando Taburu 1974 Kıbrıs* (Istanbul, Turkey: Kastaş Yayınları, 2015), 39–57; and Turan Erdem, *Kıbrıs Barış Harekatı'nda 3ncü Paraşüt Taburu* (Ankara: Genelkurmay Basım Evi, 1999), 9.

⁴¹ Gürpınar, *Genç Bir Asker Kıbrıs ve Barış Harekatı*, 113, 120, 124–26, 146. The fourth battalion was the Turkish Gendermerie's 2d Commando Battalion (less one company).

⁴² Cumhuriyet Evcil, *Kıbrıs'ta Zafer ve 40 Yıl* (Istanbul, Turkey: Kastaş Yayınları, 2014), 94–96.

⁴³ Gürpınar, *Genç Bir Asker Kıbrıs ve Barış Harekatı*, 131; Sami Çalık, "Kıbrıs Barış Harekatında Hava İndirme Birlikleri" (master's thesis, Erciyes University, 2006), 78; and Günsev, *20 Temmuz 1974*, 119.

commanding officer of the 50th Infantry Regiment and a battalion commanding officer in passing.⁴⁴ Gathering and assessing intelligence on Cyprus was a prerogative of the General Staff's Special Warfare Section (*Özel Harp Dairesi*). Operating under the heavy cloud of secrecy, that section jealously guarded information from other sections and units, including those that were supposed to undertake the military intervention in the island.⁴⁵ It put together a top-secret document discussing key targets on the island and issued it to the Service Headquarters. Because the conditions under which its classification would be downgraded was left uncertain, the report could not be released to subcommands before the campaign.⁴⁶

Fifth, the military grade maps of Cyprus were either not available or in very short supply. Many units did not possess a proper map of the island.⁴⁷ Naval gunners also had to make do with transparent copies of maps to identify their targets on land.⁴⁸ An army aviator who was assigned to Cyprus during the operational pause had only a roadmap of the island and verbal directions from a helicopter pilot to help them find the airstrip (and the DZ) in Kirni.⁴⁹

Finally, the units deployed to Cyprus endured major problems communicating with each other during the assault phase. Turkish combat units were equipped with World War II-era U.S. radio sets. They quickly ran out of batteries for which replacements were not readily available. Some were already broken when they arrived on the island. Most ground units relied on runners or telephones for communication instead. Runners and telephones were not an option for others, however. For instance, of the three Air Control Teams (ACT) attached to the Task Force *Çakmak* to direct attack aircraft to targets around the landing beach, only one had an operational radio set.⁵⁰ Moreover, the Greek National Guard, which had a number of Turkish speakers, proved very adept at breaking the Turkish codes. They repeatedly jammed communication between the Turkish units.⁵¹ Reportedly, in multiple instances, they attempted

⁴⁴ Sever, *20 Temmuz 1974*, 49; and Gürpınar, *Genç Bir Asker Kıbrıs ve Barış Harekatı*, 142.

⁴⁵ Sever, *20 Temmuz 1974*, 44.

⁴⁶ Yamak, *Gölgede Kalan İzler ve Gölgeleşen Bizler*, 283, 326-27.

⁴⁷ Gürpınar, *Genç Bir Asker Kıbrıs ve Barış Harekatı*, 142, 159; Başel, *3ncü Komando Bölük Kıbrıs'ta*, 60; Erdem, *Kıbrıs Barış Harekatı'nda üçüncü Paraşüt Taburu*, 14; and Sadrazam, *Kıbrıs'ta Mitlerden Gerçeğe*, vol. 3, 1128. James E. Rodgers-Lee, a British resident of Ftericha, Cyprus, describes his first encounter with Turkish officers around noon as follows: "After a while one brought out a map and wanted to know where they were, but his map was not big enough to show their position so my wife got out a bigger map and we all went into the dining room table to show them where they were. After perhaps half an hour they left us. All they wanted from us was *our map*." Emphasis added. "War Diary of James E. Rodger's Lee," undated, authors' collection.

⁴⁸ LtCdr Özhan Bakkalbaşıoğlu (Ret), interview with authors, 22 August 2019, Uskumruköy, Sarıyer, Turkey.

⁴⁹ Maj Türker Yalçın (Ret), interview with authors, 28 August 2019, Silivri, Turkey.

⁵⁰ Erdem, *Kıbrıs Barış Harekatı'nda üçüncü Paraşüt Taburu*, 10-11; Üstügen, *1nci Komando Taburu 1974 Kıbrıs*, 74-75; Cemal Eruç, *Ceride* (Istanbul, Turkey: Cinius Yayınları, 2014), 22; and Mehmet Remzi Gökhan, *Kıbrıs Barış Harekatı'nda İlginç Olaylar* (Ankara, Turkey: Yeni Avrasya Yayınları, 2004), 298.

⁵¹ See, for instance, Erdem, *Kıbrıs Barış Harekatı'nda üçüncü Paraşüt Taburu*, 16; and Sever, *20 Temmuz 1974*, 68-69.

to misdirect the attack aircraft to hit friendly troops on the beach by imitating Turkish ACTs. Interestingly, VI Corps headquarters also suffered problems communicating with Turkey, causing much anxiety and tension.⁵²

The time factor prevented any time-consuming shaping and preparation operations, and Turkish planners had to revise the sequence and scope of the naval and air operations as well. Pre-D-day bombing of the Greek Cypriot defenses were dropped to save the element of surprise. Instead, on D-day, the Turkish strike aircraft and destroyers would hit their designated targets between 0600 and 0655 that morning to soften the Greek defenses before the arrival of Turkish units.⁵³ Prime Minister Ecevit requested additional revisions to the original air and naval bombing plans that he named *Kıbrıs Barış Harekâtı* (Cyprus Peace Operation) to emphasize the peaceful nature of his government's intentions and the limited scope of Turkish military action.⁵⁴ Accordingly, he directed the Turkish Air Force and Navy to reduce their bombing to a minimum to avoid civilian casualties. The Turkish General Staff issued new air tasking orders on 18 July 1974 at 0300. The Turkish Air Force was ordered not to undertake any independent air action or armed reconnaissance sorties and to limit its actions to engaging targets to be designated by ACTs in the vicinity of landing and drop zones.⁵⁵

When the British government turned down Ecevit's proposal for a joint military action, the Turkish military was given the initial order on 19 July to launch the campaign as scheduled.⁵⁶ The Turkish Cypriot authorities and the Turkish forces on the island were advised on the upcoming Turkish military intervention around midnight.⁵⁷ The original timeline was as follows:

19 July 1974 (D-1 day)

0700 Task Force Çakmak departs Mersin

20 July 1974 (D-day)

0500 Launch of the operation

0600 Naval bombing (20 minutes)

0615 Prime Minister Ecevit's public announcement of the operation

⁵² Yamak, *Gölgede Kalan İzler ve Gölgeleşen Bizler*, 329, 344; and Gökhan, *Kıbrıs Barış Harekâtı'nda İlginç Olaylar*, 298.

⁵³ Sever, *20 Temmuz 1974*, 49.

⁵⁴ Mehmet Çetingüleç, *Ecevit'in Anıları: 12 Yıl Saklı Tutulan "Veda"* (Sohbetleri, İstanbul: Doğan Kitap, 2018), 125.

⁵⁵ Mustafa Helvacıoğlu, *Harp Tarihi* (İstanbul, Turkey: Hava Harp Okulu Yayınları, 1992), 304; and Mehmet Ali Birand, *30 Sıcak Gün* (İstanbul, Turkey: Milliyet Yayınları, 1976), 54.

⁵⁶ The British government did not wish to take any military action in Cyprus to avoid being seen as either attempting to restore President Makarios to power or colluding with Turkey against Greece or Greek Cypriots. Asmussen, *Cyprus at War*, 58-67.

⁵⁷ Sever, *20 Temmuz 1974*, 51.



FIGURE 61
Slow moving LCTs and LCUs of Task Force Çakmak depart Mersin
while two destroyers remain at anchor.
Genelkurmay Başkanlığı, Turkish General Staff

0620	Air strikes (35 minutes)
0700	1st and 2d Parachute Battalions drop on Kirni and Hamitköy DZ
0730	Task Force Çakmak comes ashore
0800	1st Commando Battalion lands on Kirni DZ by helicopters ⁵⁸

EXECUTION

Prime Minister Ecevit withheld the government's authorization for the campaign until 1100 on 19 July.⁵⁹ Consequently, Task Force Çakmak departed Mersin at 1130 instead of 0700 that morning. It was transported by a landing fleet of 12 landing crafts, mechanized (LCMs); 11 landing crafts, utility (LCUs); 12 landing crafts, tank (LCTs); and 3 LSTs (one ex-USS *Terrabone Parish*-class and two former USS *Chelan County*-class). The Task Force Çakmak would take 24 hours to reach its destination. Therefore, the first echelon was bound to miss the H-hour (figure 61).⁶⁰

⁵⁸ This timeline was extracted from the notes taken by a state minister in the Ecevit government. Şengün Kılıç Hristidis and Ersel Ergüz, *İsmail Hakkı Birler'in Anılarında CHP'li Yıllar: 1946-1992* (Istanbul, Turkey: Türkiye İş Bankası Kültür Yayınları, 2010), 562.

⁵⁹ The delay is attributed to U.S. mediation efforts. Deniz Harp Akademisi, *1974 Kıbrıs Barış Harekatı: Deniz Harekatı* (Istanbul, Turkey: Deniz Harp Akademisi, 2004), 14-15.

⁶⁰ Ertuğrul Üçler, *Kıbrıs Çıkartması: 35. Yılında Kıbrıs Deniz Çıkartmasının İç Yüzü* (Istanbul, Turkey: YeniYüzyıl Yayınları, 2009), 92-96; Tümer, *Bir Komutan, Bir Yaşam*, 108; and Akademisi, *1974 Kıbrıs Barış Harekatı*, 9.

The next day, air action over the island began when a Turkish Air Force Republic RF-84F Thunderflash reconnaissance aircraft took off from Adana air base for the first combat sortie of the campaign at 0449. It was shot down by the Greek Cypriot antiaircraft guns over the Famagusta–Nicosia highway.⁶¹ A Turkish Army twin engine liaison aircraft (e.g., Dornier Do 28) was airborne around that time to insert the so-called Tactical Command Group of the Airborne Brigade to the semiprepared airstrip in the Kirni DZ north of Nicosia before the airdrop. The team consisted of the deputy commanding officer, the G-3 of the Airborne Brigade, and the commanding officer of the brigade's pathfinder team. They were supposed to land at 0500 to supervise marking of the drop zones. The receiving party on the ground heard a propeller aircraft overhead at 0400. They withheld the light signal that would guide the aircraft in pitch dark. The problem was the time difference. The Turkish planners used Turkish local time when preparing for the campaign. Although both Turkey and Cyprus were in the same time zone, Turkey switched to daylight saving time in 1972, and the one-hour time difference took an early toll in the execution of plans on 20 July 1974.⁶² In the meantime, some of the civilian ships that had been pressed into service made a display near Famagusta Bay in a deliberately planned deception operation.⁶³

Unaware of the landing fleet's delay in departing Mersin and the time difference misunderstanding, Rauf R. Denктаş, the leader of the Turkish Cypriot community, prematurely announced the launch of the Turkish military intervention on the radio at 0500 local time.⁶⁴ For the next hour, there was no military activity on or over the island other than Turkish planes dropping leaflets on enemy troops and civilians. Around that time, the underwater demolition (UDT) and SEAL teams had just arrived off the narrow landing beach selected on 18 July. This specialized force in the theater was enough to clear only one beach from underwater mines and barriers at a time. Therefore, the Turkish commanders had to settle for one beach that would allow embarking one battalion in each wave: Pentemile (later renamed *Yavuz Çıkarma*) Beach, located 7 km west of Kyrenia. Compared to the alternatives, intelligence re-

⁶¹ Levent Başara, "Türk Uçakları Kıbrıs Üzerinde: E. Korg. Hulusi Kaymaklı Anlatıyor," *Savunma ve Havacılık* 74, no. 13 (1999): 40.

⁶² The aircraft that returned to Adana finally landed on Kirni airstrip at 0730. Evcil, *Kıbrıs'ta Zafer ve 40 Yıl*, 99–100.

⁶³ In the Turkish accounts of the campaign, there is a great deal of emphasis on the "Ghost Fleet" that was tasked with diversionary action. Consisting of six ships mostly taken from the merchant marine, this Ghost Fleet sailed around the island as if Famagusta Bay would be the landing site. Its success is a point of dispute, however. Its impact on the initial confusion in the Greek National Guard Headquarters pales in comparison to other factors above. See Üçler, *Kıbrıs Çıkartması*, 81–85; and Halil Sadrazam, *Kıbrıs'ta Mitlerden Gerçeğe: İkinci Harekat ve Sonrası Ağustos 1974*, vol. 4 (Lefkoşia, Cyprus: Söylem Yayınları, 2014), 1541.

⁶⁴ Sadrazam, *Kıbrıs'ta Mitlerden Gerçeğe*, vol. 3, 1105–6. The lack of Turkish military action after Denктаş's statement served as an unintended act of deception. The Greek Cypriots considered it yet another failure on the part of the Turks to deliver on their vocal military threats. Due to Ankara's failure to act militarily during the two previous crises, Turkish threats lacked credibility among the Greek Cypriots. They were expecting a repeat of the 1964 and 1967 behavior patterns. Boğuşlu, *1960–1978 Olayları*, 91.

ports suggested it was relatively lightly defended. Additionally, it offered protection from flat and ballistic trajectory weapons, as the terrain beyond the beach rose sharply and would mask the landing.

The Greek Cypriots invested much effort and money to construct bunkers and heavy weapon positions covering most of the coastline, but not this small beach. Finally, a small islet to its west provided a natural navigation aid to locate the landing beach. While clearing the beach, the Turkish Navy UDT/SEALs quickly realized that underwater rocks rendered the east one-third of the beach unsuitable for landing. It could accommodate three LCTs simultaneously at most.⁶⁵

Another challenge was the Pentadaktylos mountain range, which stood as a tall barrier between the landing beach and the Triangle, allowing maneuver only along the Kyrenia–Karava highway axis. The Turkish advance had to progress on this highway, vulnerable to Greek Cypriot artillery, mortar, and antitank fire on both flanks. The Kyrenia pass had been held by the Turkish Cypriots since 1964 and was the key territory connecting Kyrenia to Nicosia. The success of the operation hinged on keeping the pass and high ground surrounding it in Turkish hands until the linkup.⁶⁶

AMPHIBIOUS ASSAULT

The amphibious assault force in the first echelon consisted of 3,500 troops (including about 750 marines), a tank company with 15 M47 MBTs, a mechanized infantry company with 20 M113/M106 APCs, a field artillery battalion with 12 105mm howitzers, a Cobra antitank guided missile platoon, some quarter-ton truck-mounted 106mm recoilless rifles, a bulldozer, and various support vehicles.⁶⁷ They would be brought on shore in five waves in quick succession. The Navy Amphibious Infantry Regiment was first to hit the beach with LCM-8 “Mike boats” and landing crafts, vehicle personnel (LCVPs), at H-hour. The 50th Infantry Regimental Combat Team was to follow seven minutes later with LCUs and LCTs. The Task Force Combat Support and Service Units were the last to come on shore at H-hour+20 minutes.⁶⁸

H-hour for the first wave was set at 0730. The landing fleet was able to make up partially for the delay in its departure at sea, so the two Navy amphibious infantry battalions hit the beach at 0847 (figure 62). They moved quickly inland and cut off the highway between Kyrenia and Karava. This first wave met with light resistance from the defenders, who were caught off guard. At 0950, the commanding officer of

⁶⁵ Üçler, *Kıbrıs Çıkartması*, 60–75; İkiz, *Bir Ada, Bir Dava, Bir Savaş*, 112–14, 134–35, 148; Tümer, *Bir Komutan, Bir Yaşam*, 108–9; Günsev, *20 Temmuz 1974*, 40–41, 55–59, 102; and Sadrazam, *Kıbrıs'ta Mitlerden Gerçeğe*, vol. 3, 1089–90, 1138.

⁶⁶ *Kıbrıs Broşürü* No. 1, 7–13; and Halil İbrahim Salih, *Cyprus: The Impact of Diverse Nationalism on a State* (Tuscaloosa: University of Alabama Press, 1978), 43.

⁶⁷ The Navy Infantry Regiment had 41 officers, 29 noncommissioned officers, and 677 troops. İkiz, *Bir Ada, Bir Dava, Bir Savaş*, 127–28; Bora Kutluhan, “Bir Güç Doğuyor,” *Savunma ve Havaçılık* 75, no. 13 (1999): 36; and Sadrazam, *Kıbrıs'ta Mitlerden Gerçeğe*, vol. 1, 1128.

⁶⁸ İkiz, *Bir Ada, Bir Dava, Bir Savaş*, 133–34; and Halil Sadrazam, *Kıbrıs'ta Varoluş Mücadelemiz, Şehitliklerimiz ve Anıtlarımız* (Istanbul, Turkey: Türkiye Şehitlikleri İmar Vakfı Yayınları, 1990), 79.



FIGURE 62
LCTs and LCUs of Task Force Çakmak head for the landing beach, Pentemili.
Genelkurmay Başkanlığı, Turkish General Staff

the regiment radioed that the beachhead was secured. The second wave came ashore at 1000. The amphibious assault phase was completed when the fifth and final wave disembarked on the beach at 1300 that afternoon.⁶⁹

The assault force was supported by aircraft and four destroyers. Because the beach was lightly defended and the main Greek Cypriot units were not nearby, the Navy emphasized isolation and interdiction of the beach area. Two Greek Cypriot fast attack craft dashed out of the Port of Kyrenia to engage the Turkish landing craft. They were quickly taken out by the Turkish North American F-100 Super Sabres. The Turkish Air Force was able to establish and maintain air superiority over the island during the day as Cyprus was too far for the Hellenic Air Force to challenge Turkish air superiority. Though Greece had the means to disrupt Turkish naval activity around the island, the junta refrained from direct involvement in the conflict with Turkey. As a result, throughout the campaign, Turkish forces in the air and at sea encountered little, if any, opposition. This superiority negated the defenders' advantages in terms of numbers and familiarity with the terrain during the day.⁷⁰

Unfortunately for the Turks, lack of experience and proper equipment soon showed their effects. There was no officer assigned as beachmaster to organize the flow of personnel and stores across the beach. The Turkish Navy did not have naval

⁶⁹ Üçler, *Kıbrıs Çıkartması*, 116–32; and İkiz, *Bir Ada, Bir Dava, Bir Savaş*, 136.

⁷⁰ Üçler, *Kıbrıs Çıkartması*, 174–75.

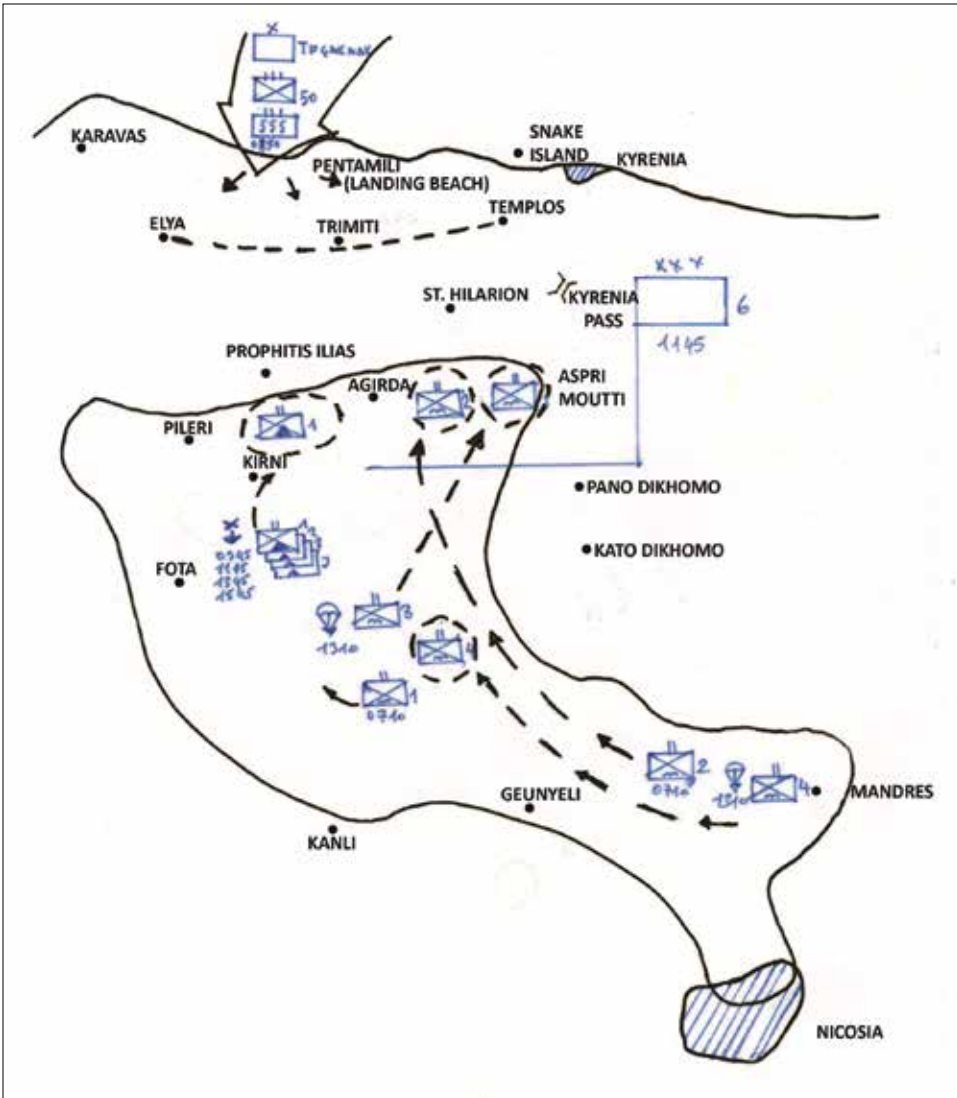


FIGURE 63
Map of D-day.
Courtesy of the authors

construction units or beach armored recovery vehicles. A sole bulldozer and its operator heroically tried to clear the beach of obstacles, dug up approach paths, and even pushed stuck LCUs, but of course, was unable to build up facilities for landing more troops and equipment. Around the time when the last wave came on shore, Greek Cypriot resistance to the Turkish landing gradually gained strength. Defenders were able to slow down the advance of the 50th Infantry Regiment's battalions to their designated objectives (figure 63). Having the marines consolidate on the landing site,

the 50th Regiment should have exploited the situation by sufficiently extending the beachhead. According to the ground maneuver plan, the 1st Battalion was to head toward the northern slopes of the Pentadaktylos all the way up to Trimithi (*Edremi*), the 2d Battalion to the west in the direction of Karavas (*Alsancak*), and the 3d Battalion in the direction of the Turkish Cypriot village of Templos (*Zeyinlik*) just below the Turkish-Cypriot-held Kyrenia pass in the east. After reaching its objective, the 3d Battalion was supposed to link up with the 3d Battalion of the Commando Brigade, which would charge downhill from the high ground around the Kyrenia pass on D-day or D+1. In an attempt to expand the beachhead to the east, the 3d Battalion, 50th Regiment, charged with the support of M113 APCs at 1300. Their vehicles froze in their tracks 500 meters from the line of departure when two APCs were hit by the defenders. The troops and APCs fell back on their initial positions. This attack turned out to be the only recorded attempt by the Turkish Army's tracked vehicles to break out of the beachhead until the arrival of the second echelon two days later. The regiment commander was afraid of exhausting and wearing out their unit and postponed further offensive action.⁷¹

Although published memoirs of Turkish officers and eyewitness accounts suggest that some Turkish troops reached their objectives in the early hours of the landing, they quickly fell back on the beachhead under intensified Greek Cypriot artillery and mortar fire later in the day.⁷² After their initial confusion and hesitation, the Greek Cypriot National Guard headquarters was able to launch an offensive from the east and west of the Turkish beachhead around 1400. The National Guard's T-34/85 medium tanks managed to break the Turkish lines on both sides. Several of them came to within a stone's throw from the Task Force *Çakmak* command post. Others stalled due to mechanical failures. They were then knocked out by LAW antitank weapons and recoilless rifles. The wire-guided Cobra antitank rounds proved ineffective in an urban setting as they tangled with telephone and power lines on the side of the highway immediately after launch. The Turkish troops were able to recover their positions after the Greek Cypriot tank threat was averted by 1500.⁷³

By 1800 that afternoon, the landing craft assembled off the landing beach for their return trip to Mersin. They would return 48 hours later with the second echelon forces. Until then, the 3,500 Turkish troops on the beachhead were left on their own. Without air cover at night, they were vulnerable to counterattacks and raids. The defenders were poised to take advantage of their knowledge of the terrain and superiority in troop numbers under the cover of darkness. It had been taken for granted that the Greek Cypriot National Guard lost its cohesion after the 15 July coup. It was a highly

⁷¹ İkiz, *Bir Ada, Bir Dava, Bir Savaş*, 135–39, 143–44, 160–62; and Sadrazam, *Kıbrıs'ta Mitlerden Gerçeğe*, vol. 1, 1158, 1164.

⁷² M. Atıf Ürük, *Kıbrıs Gerçeği: Platini'den Beşparmaklara, Girne'den Lefkoşa'ya* (Istanbul, Turkey: Cinius Yayınları, 2018), 238.

⁷³ İkiz, *Bir Ada, Bir Dava, Bir Savaş*, 139–40; and Sadrazam, *Kıbrıs'ta Mitlerden Gerçeğe*, vol. 3, 1158, 1160–71.

politicized and deeply divided military, and it was commanded by officers seconded from the Greek armed forces, while its ranks were filled by Greek Cypriot conscripts.

Its initial reaction to the Turkish campaign was slow, hesitant, and uncoordinated, but the Turkish assault landings came as a complete surprise. Its elite units and the ELDYK were dispersed across the island in pursuit of the deposed President Makarios, who left the island with British help. Therefore, while Turkish military intelligence estimated the Greek Cypriot National Guard peacetime strength at 25,000 with an additional 10,000 in home guard positions to be mobilized in case of need, their combat effectiveness was questionable with the exception of three commando battalions (31st, 32d, and 33d Battalions).⁷⁴ The National Guard command made a series of terrible operational and tactical mistakes, chief among them squandering their resources by targeting Turkish Cypriot enclaves scattered all around the island instead of establishing a center of gravity against the Turkish landings. This reaction was actually expected by the Turkish General Staff planners and used as a planning parameter. TMT fighters and Turkish special force officers in charge of enclaves were ordered to bog down as many National Guard units as they could to gain time for the landings.⁷⁵

Nevertheless, once the immediate shock of the landings had been overcome, the Greek Cypriots decided to hit the Turks. Under the cover of darkness, they took the initiative with attacks on the beachhead, the airhead, and the KTKA positions around Nicosia. Many Turkish participants concluded that the fate of the campaign was decided on the night of 20–21 July 1974. That night, the ELDYK charged on the KTKA positions supported by the Greek Cypriot National Guard's T-34/85 medium tanks and BTR (in Russian, *Bronyetransporter*) armored vehicles. They managed to penetrate the Turkish positions. In the very critical hours of the ordeal, the Turkish Air Force sent in a flight of four F-100 Super Sabres, which hit the ELDYK positions in a daring night mission. Airpower helped the KTKA recover its positions and set a new line of defense against the ELDYK.⁷⁶ The drop and landing zones for airborne and commando battalions were located kilometers away from their D-day objectives. They were to be transported to their assembly areas by trucks and buses to be mobilized by the TMT. However, failure to gather these vehicles forced exhausted troops to hike for hours to reach their assembly areas on the hills overlooking the beachhead and the Kyrenia pass. Those areas were secured by the TMT units. Around midnight, coming from different directions, the three Greek National Guard commando battal-

⁷⁴ Sever, *20 Temmuz 1974*, 54; and Makarios Drousiotis, *Cyprus 1974: The Greek Coup and the Turkish Invasion* (Nicosia, Cyprus: Alfadi Publications, 2009), 398–416.

⁷⁵ Yamak, *Gölgede Kalan İzler ve Gölgeleşen Bizler*, 334–35, 341; and Boğuşlu, *1960–1978 Olayları*, 89–90.

⁷⁶ Yamak, *Gölgede Kalan İzler ve Gölgeleşen Bizler*, 331–32; Sadrazam, *Kıbrıs'ta Mitlerden Gerçeğe*, vol. 3, 1311–22; and İbrahim Artuç, *Kıbrıs'ta Savaş* (Istanbul, Turkey: Kastaş Yayınları, 1989), 204.

ions first overran the TMT positions on the high ground. Along the way, they raided and destroyed the radio relay station set up by the VI Corps.⁷⁷

Next, the three Greek National Guard Commando battalions hit the Turkish commando battalions and the 3d Parachute Battalion assembling for assault on their D-day objectives on the Pentadaktylos mountains. Both sides' elite units fought fiercely and sustained heavy casualties until 0900 the following morning to hold the high ground overlooking the beach and airheads. At some point, the Greek Cypriot units advanced within close range of the VI Corps command post. The staff destroyed the plans and maps of the campaign in preparation for evacuation. Although the Turkish elite units prevailed over their Greek Cypriot counterparts eventually, they were too exhausted to resume their planned offensive for the early linkup with the beachhead.⁷⁸

The beachhead contracted into a less than 1-km-by-1-km swath of land squeezed between the highway and the sea under mortar and artillery fire from the high ground. Fifteen M47 tanks either ran out of fuel or broke down with mechanical failures. No refuel tankers or mechanics were available in the first echelon. The tanks' contribution to the fight remained very limited until 22 July (D+2). The situation further deteriorated when the commanding officer of the 50th Infantry Regiment was killed, and their deputy was wounded with the impact of an antitank round that hit the regimental command post in a villa overlooking the landing beach. The command chain in Task Force *Çakmak* lost arguably its strongest link. Without the tanks and with a broken chain of command, the task force could not realistically achieve its objectives.⁷⁹

On 21 July (D+1), the Turkish General Staff removed all restrictions on air action over Cyprus. Turkish attack aircraft performed 157 close air support missions in addition to 250 combined sorties for interdiction, air cover, combat air patrol, and air defense.⁸⁰ On that day, the fighting on the ground continued but mostly in the form of exchanges of fire. While Task Force *Çakmak* took great strides to hold its ground, the units in the airhead received reinforcements from the air. The 1st Battalion, 230th Infantry Regiment, and unqualified jumpers of the Airborne Brigade were brought

⁷⁷ Evcil, *Kıbrıs'ta Zafer ve 40 Yıl*, 103-31; Üstügen, *İnci Komando Taburu 1974 Kıbrıs*, 84-100, 103-11, 182-84; Başel, *3ncü Komando Bölük Kıbrıs'ta*, 76-86; and Erdem, *Kıbrıs Barış Harekati'nda 3üncü Paraşüt Taburu*, 8-24. This move effectively cut off all communication between the Turkish forces on the island and Ankara. For all intents and purposes, the Turkish government and General Staff in Ankara were no better off than the Turkish units on the island in terms of situational awareness.

⁷⁸ Evcil, *Kıbrıs'ta Zafer ve 40 Yıl*, 134-40; Üstügen, *İnci Komando Taburu 1974 Kıbrıs*, 112-42; Eruç, *Ceride*, 42-50; Gürpınar, *Genç Bir Asker Kıbrıs ve Barış Harekati*, 25-37; Erdem, *Kıbrıs Barış Harekati'nda 3üncü Paraşüt Taburu*, 25-37; and Sadrazam, *Kıbrıs'ta Mitlerden Gerçeğe*, vol. 3, 1206-33.

⁷⁹ İkiz, *Bir Ada, Bir Dava, Bir Savaş*, 165-66, 203-5; and Sadrazam, *Kıbrıs'ta Mitlerden Gerçeğe*, vol. 3, 1172-5.

⁸⁰ Sever, *20 Temmuz 1974*, 119.

into the island by helicopters. In practical terms, about 1,700 additional troops set foot on the island.⁸¹

Although an airbridge was formed with helicopters operating from the semi-prepared airstrip at Kirni, the Turkish forces needed facilities that could handle the flow of troops and materiel in large quantities by air. Having survived the ELDYK offensive on the first night of the campaign, the KTKA was reinforced with the 4th Battalion of the Airborne Brigade. Its 21 July mission was to capture the Nicosia International Airport. Ankara was obsessed with increasing its military footprint on the island at a rate that could not be matched by Greece. However, the island's major air and sea terminals remained beyond the reach of Turkish forces.⁸² Greece, on the other hand, could rely on its access to them to challenge incrementally rising Turkish superiority in troop numbers.

This obsession might have clouded the Turkish high command's judgment when they received the news of a Greek amphibious convoy off Rhodes in the Aegean. There was no Greek convoy headed for Cyprus. Fearing that the Turkish intervention in the island might trigger a war with Greece, the Turkish General Staff retained the bulk of its forces for this contingency. This resulted in division rather than unity in command. To attack the alleged Greek amphibious convoy, the Turkish Air Force headquarters assigned strike squadrons under the jurisdiction of the 1st Tactical Air Force. Air operations over Cyprus were the responsibility of the 2d Tactical Air Force, which was represented at the Joint Operations Center in Adana. Each tactical command had its own code system. When pilots and sailors exchanged codes, they did not match. The yelling and swearing in perfect Turkish by a destroyer crew on the radio was considered yet another Greek attempt to deceive the Turkish pilots. Poor air-to-ground communication resulted in several instances of fratricide, but none of these blunders compared in magnitude and severity to the sinking of the TCG *Kocatepe* (D 354).⁸³

Later that day, 15 Hellenic Air Force Nord Noratlas transport aircraft flew a night mission to bring in the 35th Greek Commando Battalion to the island in Operation Niki (Victory). Several transports failed to reach their destination—one was shot down by friendly antiaircraft fire over the Nicosia International Airport and two crashed—but the majority of the commandos made it to Cyprus. This met the worst expectations of the Turkish side. While the KTKA contested the Greek Cypriot con-

⁸¹ The Airborne Brigade deployed to Cyprus with a troop strength of 2,883, of whom 1,934 made their combat jumps on 20 July 1974 and 949 were transported by helicopters the next day. Çalık, *Kıbrıs Barış Harekatında Hava İndirme Birlikleri*, 80. The 1st Battalion, 230th Infantry Regiment, deployed 747 troops on the island on the same day. Gürpınar, *Genç Bir Asker Kıbrıs ve Barış Harekatı*, 140-43, 197; and Atilla Çilingir, *Kıbrıs, 20 Temmuz 1974 ve Sonrası* (Istanbul, Turkey: Otopsi Yayınları, 2004), 107.

⁸² Sadrazam, *Kıbrıs'ta Mitlerden Gerçeğe*, vol. 3, 1325-29.

⁸³ Üçler, *Kıbrıs Çıkartması*, 179-86, 202-12. The incident remains a hot topic to this day. For a recent account through the eyes of pilots involved in the attack, see İsmail Meker, *Kocatepe Batarken Cehennemde Ateş Kardeşliği* (Istanbul: Papirüs Yayınları, 2019).

trol of the international airport, the British units in the guise of the United Nations claimed control of the airport. The next day, Turkish Air Force Lockheed F-104G Starfighters bombed the runways to put it out of operation.⁸⁴

LINKUP AND THE END OF THE AMPHIBIOUS PHASE

The second echelon of the amphibious assault left Mersin on 21 July 1974. The commanding general of the 39th Infantry Division, Major General Bedrettin Demirel, and his deputy, Brigadier General Recep Hakkı Borataş, were both on board. Due to the loss of communication with the first echelon on 21 July, they assumed that the landing beach had been overrun by the Greek Cypriot National Guard. Therefore, they planned to make an assault landing in hostile territory. The second echelon comprised 35 vehicles (including two fuel tankers), 15 M47 tanks, 8 M113 APCs, and 778 troops. It was offloaded on to the landing beach between 1030 and 1530 on 22 July.⁸⁵

General Demirel set up another task force, Task Force Bora, and placed it under Borataş's command (figure 64). Task Force Bora's mission was to link with the forces in the airhead by 1700. It was a deadline set for political purposes. The UN Security Council had acted far more swiftly than the Turkish diplomats anticipated. The Soviet Union called for an emergency meeting as soon as the Turkish campaign was launched and Ankara came under intense diplomatic pressure to accept a ceasefire and terminate its military action on the island immediately. Prime Minister Ecevit finally relented to prevent Turkey's international isolation. The ceasefire was scheduled to go into effect at 1700 on 22 July 1974.⁸⁶

Task Force Bora charged eastward in a single column of tanks and APCs along the only venue of approach to linkup with the airhead at 1020. The tanks in the first echelon were refuelled to join the task force's eastward charge. With 30 M47s and 8 M113s under his command, Borataş generated the critical mass of armor needed to break out of the beachhead (figure 65). The road to Kyrenia was 7 km; the task force covered the first kilometer in three hours and had to fight hard for nearly every inch. However, the seemingly solid Greek Cypriot defenses collapsed in the face of overwhelming odds within two hours of the Turkish tank offensive.⁸⁷

The VI Corps headquarters ordered the 2d Parachute Battalion and 3d Commando Battalion to attack from their positions on the Kyrenia pass to meet up with the amphibious task force rolling on the highway to Kyrenia. While the former followed

⁸⁴ Sadrazam, *Kıbrıs'ta Mitlerden Gerçeğe*, vol. 3, 1331-34; and Hv. K. K. Tarihçe Şube Müdürlüğü, *Türk Hava Kuvvetleri Uçak Aileleri: F-104 Starfighter* (Ankara: Hava Basımevi ve Neşriyat Müdürlüğü, 2009), 118.

⁸⁵ Kadercan, *610 Gerçek Gün*, 243; İkiz, *Bir Ada, Bir Dava, Bir Savaş*, 206-12; Sadrazam, *Kıbrıs'ta Mitlerden Gerçeğe*, vol. 3, 1258-59; and Boğuşlu, *1960-1978 Olayları*, 96.

⁸⁶ Birand, *30 Sıcak Gün*, 131-35.

⁸⁷ Sadrazam, *Kıbrıs'ta Mitlerden Gerçeğe*, vol. 3, 1260-82; Paul Martin, "Turks Take Kyrenia and Consolidate after Three-day Fight," *Times*, 24 July 1974; and Panikos Neokleus, *Kıbrıs 1974'de Göz Ardı Edilenler*, trans. Voula Harana (Lefkoşa, Cyprus: Galeri Kültür Yayınları, 2009), 165-66.



FIGURE 64
Second echelon of the amphibious assault with M-47 MBTs
on board LCTs approaching the landing beach on 22 July 1974.
Genelkurmay Başkanlığı, Turkish General Staff



FIGURE 65
Troops and APCs of Task Force Bora are being disembarked and greeted by the troops
from the first echelon on the landing beach on 22 July 1974.
Genelkurmay Başkanlığı, Turkish General Staff

Serhat Güvenç and Mesut Uyar



FIGURE 66
Task Force Bora breaks out of the beachhead with M47 MBTs and
M106 SP (self-propelled) mortar carriers.
Genelkurmay Başkanlığı, Turkish General Staff

a route to the west of Kyrenia, the latter reached the Turkish Cypriot village of Templos at 1500, where it had a visual of the tanks of Task Force Bora (figure 66). When it moved farther north from Templos, the commandos established contact with the tankers from the beachhead. Around 1720, the first column of three tanks and three APCs entered the Kyrenia pass, marking the end of the first phase of the campaign.⁸⁸

The amphibious operations were confined only to the first phase of the campaign and the Turkish Navy's landing fleet continued administrative landings after this phase. The landing craft and other supply vessels shuffled back and forth between Mersin and Kyrenia to transport troops and equipment. Ironically, the small beach at Pentemile was not abandoned. It continued to bear the brunt from the flow of troops and equipment into the island from Turkey.⁸⁹

As for the units committed to the amphibious campaign, the 50th Infantry Regiment lost its integrity as each of its battalions was attached to a different unit during the operational pause and the second phase of the operation. In short, it never recovered from the loss of its commanding officer and sustained a higher level of casualties than other infantry regiments during the campaign. The Navy Amphibious Infantry

⁸⁸ Evcil, *Kıbrıs'ta Zafer ve 40 Yıl*, 167–69; Başel, *3ncü Komando Bölük Kıbrıs'ta*, 99–137; and Sadrazam, *Kıbrıs'ta Mitlerden Gerçeğe*, vol. 3, 1282–89.

⁸⁹ Boğuşlu, *1960–1978 Olayları*, 102–3.

regiment remained at the beachhead and its two battalions were committed to combat for capturing Laptos and Karavas to the east of the landing beach on 1 August 1974. Its combat support deficiency was remedied by weapons companies detached from the battalions of the 229th Infantry Regiment.⁹⁰

CONCLUSION

The Operation Yıldız 70 Atma 4 remains arguably the most complex campaign that the Turkish armed forces have ever conducted. Prior to 1974, the Turkish military had no real experience of amphibious operations. It took more than a decade for Turkey to build up not only its amphibious but also its airborne capacity. When the coup took place on Cyprus, the Turkish armed forces had a sound plan, sufficient and trained forces, and sea and air superiority that had not been tested or rehearsed before. They had fought their last war 50 years prior, and the 1974 Cyprus campaign clearly showed that nothing could replace combat experience.

From the onset, the campaign was devised to secure rapid achievement of military objectives so that diplomats could translate them into political gains in subsequent negotiations. By the same token, the Turkish General Staff prioritized increasing troop numbers on the island at almost any cost. Operationally, troops were needed to reverse the balance of forces in the battlefield. Dominance of political goals coupled with lack of combat experience and combined operations exposed the weaknesses in command, communication, intelligence, and coordination among the Turkish services and units. Shortage of interoperability between services—and to a certain extent interservice rivalry—showed itself several times.

Lack of combat experience caused more problems, such as difficulty in applying theoretical knowledge into practice. As can be seen in Guadalcanal campaign in 1942, securing the beach with untried troops is a complex and dangerous operation even if the enemy defense is negligible at the outset. Turkish General Staff planners and the Navy knew perfectly well that troops and equipment had to be assembled, embarked, and arranged so that during the passage to the landing site the organization of the unit (including its combat support elements) was maintained. However, when the Navy Amphibious Infantry Regiment and the 50th Regiment had landed, they lacked heavy organic fire support due to poor combat loading. Additionally, rapid offload of troops and supplies to build a critical mass without the presence of an effective shore party under an able beachmaster led to confusion and disorganization at the beach. The Turks discovered that the amphibious operation does not end with landing, but rather needs consolidation and exploitation. When the much-feared enemy counterattack with tanks materialized, political restrictions (concern for civilian and UN peacekeeper casualties and international opinion) constrained the air and naval bombing. Fortunately, professionalism and improvisation carried the day.

The list of shortcomings and failures is long but no amount of criticism can deny

⁹⁰ Boğuşlu, *1960-1978 Olayları*, 104-5; and İkiz, *Bir Ada, Bir Dava, Bir Savaş*, 214-15.

that in the end, the amphibious, airborne, and linkup operations were successful and most of the military objectives were achieved against all odds. As far as the Turks are concerned, it was an astonishing success. The Turkish amphibious operation was one of the last major operations with vertical components and certainly contains valuable lessons. Unfortunately, it has never received serious academic interest and research.⁹¹ There is a large body of published memoirs by Turkish, Greek, and Cypriot veterans, but no official military history volume by anyone of the combatant nations, and almost nothing in English other than period accounts by journalists exists. The continued political deadlock on the future status of the island has a great deal to do with the lack of study of this operation by military historians.

⁹¹ Although Maj Patrick L. Townsend, USMC, at that time, called attention to the Turkish experience of Cyprus and advised the U.S. armed forces “to study in depth the Turkish invasion, the only full combat test of the twenty-five-year-old idea of combining vertical envelopment with amphibious assault,” but nothing concrete has come out this call. Maj Patrick L. Townsend, “Airborne Operations and Amphibious Warfare, Cyprus, 1974,” in *Assault from the Sea: Essays on the History of Amphibious Warfare*, ed. LtCol Merrill L. Bartlett (Annapolis, MD: Naval Institute Press, 1983), 374.

CHAPTER EIGHTEEN

The Role of Amphibious Operations within the Multidomain Operational Construct

Background and Considerations

Keith D. Dickson

STRATEGIC GUIDANCE FOR FUTURE WARFIGHTING

The 2017 *National Security Strategy* presents a worldview in the context of great powers. China and Russia are “revisionist powers” that challenge American power, influence, and interests and are attempting to erode American security and prosperity. These revisionist powers, along with the “rogue states” of Iran and North Korea, are competing with the United States “to shift regional balances of power in their favor.” China and Russia “are fielding military capabilities designed to deny America access in times of crisis.”¹

To protect its interests, the United States is now required to compete continuously within and across these contests for influence being played out in regions around the world. The strategy declares that U.S. forces must be able “to operate across a full spectrum of conflict, across multiple domains at once.”² Three points must be addressed by the nation: restore readiness of forces for major war; retain military overmatch, and operate at sufficient scale for ample duration. U.S. forces must

¹ For the purposes of this discussion, the term *rogue state* refers to a nation or state regarded as breaking international law and posing a threat to the security of other nations. *National Security Strategy of the United States of America, December 2017* (Washington, DC: White House, 2017), 25, 27.

² *National Security Strategy of the United States of America*, 28.

develop new operational concepts and capabilities to win without assumed dominance in air, maritime, land, space, and cyberspace.³

The *National Defense Strategy* (NDS) expands on the assumption that the United States must remain the dominant and unchallenged superpower. It declares that “we are emerging from a period of strategic atrophy, aware that our competitive military advantage has been eroding. . . . Interstate strategic competition, not terrorism, is now the primary concern in U.S. national security.” China and Russia are seeking “to shape a world consistent with their authoritarian model” and are “undermining the international order from within the system.”⁴

The NDS declares that the character of war is changing: “We face an ever more lethal and disruptive battlefield, combined across domains, and conducted at increasing speed and reach—from close combat, throughout overseas theaters, and reaching to our homeland.” In response, the Joint Force “must anticipate how competitors and adversaries will employ new operational concepts and technologies to attempt to defeat us, while developing operational concepts to sharpen our competitive advantages and enhance our lethality.”⁵

The *Joint Operating Environment 2035* heavily influenced both strategic documents, predicting that the future Joint Force will confront a number of long-term and demanding challenges, including “antagonistic geopolitical balancing.” The future Joint Force, it asserts, “will be challenged to break the power projection capabilities of adversary states, including modern mechanized forces on land and sophisticated naval forces at sea, all protected by advanced aerospace and electromagnetic jamming and spoofing capabilities.”⁶

THE EVOLUTION OF AN OPERATIONAL APPROACH: FROM AIRSEA BATTLE TO MDO

The AirSea Battle concept emerged in September 2009 as the U.S. Navy and Air Force agreed to work jointly to address warfighting in antiaccess/area-denial (A2/AD) conditions.⁷ AirSea Battle envisioned five critical areas of competition: battle

³ *National Security Strategy of the United States of America*.

⁴ *Summary of the 2018 National Defense Strategy of the United States of America: Sharpening the American Military's Competitive Edge* (Washington, DC: Department of Defense, 2018), 1.

⁵ *Summary of the 2018 National Defense Strategy of the United States of America*, 3, 7.

⁶ *Joint Operating Environment 2035: The Joint Force in a Contested and Disordered World* (Washington, DC: Joint Chiefs of Staff, 2016), 21, 30.

⁷ The *Joint Operational Access Concept*, Version 1.0 (Washington, DC: Department of Defense, 2012) provides the following important definitions: *antiaccess* “refers to actions and capabilities, usually long-range, designed to prevent an opposing force from entering an operational area.” *Area denial* “refers to . . . actions and capabilities, usually of shorter range, designed not to keep an opposing force out, but to limit its freedom of action within the operational area.” *Joint Operational Access Concept*, i, 4.

networks, missiles, air operations, subsurface control, and force sustainment.⁸ The AirSea Battle concept examined the current capabilities the Joint Force would have available to match, counter, or overcome each of these critical areas. Among the capabilities identified were:

- Air Force global strike assets from bases in the continental United States;
- Navy attack submarines capable of antisubmarine warfare and precision-guided missile strikes against enemy systems;
- Navy surface ships capable of self-defense against aircraft or antiship cruise missiles; and
- Air Force and Navy use of airborne early warning aircraft. Both have multirole fighters capable of intercepting incoming threats as well as having a stealth capability for long-range precision strike and conducting electronic warfare against enemy air defense systems.⁹

The formal AirSea Battle concept, released in March 2013, outlined the intent to use the existing force structure to project force in an A2/AD environment and “enable concurrent or follow-on power projection operations.”¹⁰ AirSea Battle described an integrated land, naval, space, and cyberspace force networked across multiple domains, linked through interoperable procedures, capable of cross-domain operations, and conducting specific missions with pre-integrated capabilities to attack in-depth to overcome enemy defenses. Cross-domain operations employ capabilities of different domains to enhance effectiveness while minimizing vulnerabilities. These operations require communications through linked networks for the necessary command and control to employ strike and electronic warfare assets as well as support the movement and maneuver of naval combatants and support ships.¹¹

Although AirSea Battle did not survive long as an independent warfighting approach due to inter-Service challenges, especially from the Army, it did present a number of important considerations that helped to define the operational challenges U.S. forces will have to address when engaging an enemy with A2/AD capabilities. These capabilities, arrayed in a layered and fully integrated defense and operating in multiple domains, will be employed with the intent to prevent the United States from gaining the air and maritime superiority necessary for movement and maneuver of land and sea forces to deny operational access and to inflict unacceptable losses on

⁸ *Joint Operational Access Concept*, 4; and Maj Brendan P. Walsh, “Access Denied: Future Military Operations in an Anti-Access Environment” (research paper, U.S. Naval War College, 2011), 8–9.

⁹ Walsh, “Access Denied,” 8, 11–12.

¹⁰ LCdr Ryan T. Fulwider, USN, “Air-Sea Battle Through Joint Training: Power Projection Sustainability” (research paper, U.S. Naval War College, 2014), 2, 5, 7. See also *Air-Sea Battle: Service Collaboration to Address Anti-Access and Area Denial Challenge* (Washington, DC: Department of Defense, U.S. Naval War College, 2013), 4–5.

¹¹ Fulwider, “Air-Sea Battle Through Joint Training.”

U.S. forces. The enemy will attempt to create as much strategic and operational depth as possible by attacking U.S. forward bases, command and control nodes, and strategic lines of supply and communications.¹² Supported by long-range reconnaissance and surveillance systems, the enemy can employ ballistic and cruise missiles launched from land, air, surface, or subsurface platforms to attack targets at ranges exceeding 1,000 nautical miles. Antisatellite weapons can disable or destroy space systems that support complex military operations, submarines can interdict sea lines of communications, cyberattacks can disrupt command and control systems, and land and naval mines can limit maneuver.¹³

In the face of these challenges, the Joint Force must be able to accomplish three essential operational tasks: apply combat power to gain and maintain operational access, move forces and logistics over long distances, and maneuver combat power at the proper place and time.¹⁴ Because no single Service has the capabilities to operate in all the contested domains—air, land, sea, space, and cyber—AirSea Battle pointed the way by examining how two Services could develop the means to apply complementary and integrated combat power between domains to effectively gain and maintain the initiative.

Shortly after the demise of AirSea Battle, the Army worked on what was initially termed *multidomain battle* and, in 2017, the Army and Marine Corps published a white paper titled *Multi-Domain Battle: Combined Arms for the 21st Century*, which outlined an approach for “ground combat operations against a sophisticated peer enemy threat in the 2025–2035 timeframe.”¹⁵ This publication was followed 10 months later by an Army work titled *Multi-Domain Battle: Evolution of Combined Arms for the 21st Century, 2025–2040*. It described “a framework that brings order to the complexities of a multi-domain environment.” Moreover, this “framework allows commanders to arrange operations in the emerging operating environment” and “to reference actions across all domains conducted by the Joint Force.”¹⁶

The Army’s Training and Doctrine Command published an intelligence analysis entitled *The Operational Environment and the Changing Character of Future Warfare* in which it asserted that traditional aspects of warfare will “undergo dramatic, almost

¹² See LCdr Adam D. Wieder, USN, “Assessing Maritime Aspects of the AirSea Battle Concept” (master’s thesis, U.S. Marine Corps University Command and Staff College, 2012), 2–3, 20; *Joint Operational Access Concept*, 4–6, 9–11; and *Amphibious Operations*, JP 3-02 (Washington, DC: Joint Chiefs of Staff, 2019), iv-10–iv-17.

¹³ Wieder, “Assessing Maritime Aspects of the AirSea Battle Concept.”

¹⁴ *Joint Operational Access Concept*, 4–6, 9–11. Similar points are also outlined in *Amphibious Operations*, JP 3-02 (Washington, DC: Joint Chiefs of Staff, 2019), iv-10–iv-17.

¹⁵ *Multi-Domain Battle: Combined Arms for the 21st Century* (Washington, DC: Department of the Army, Headquarters Marine Corps, 2017), 1.

¹⁶ *Multi-Domain Battle: Evolution of Combined Arms for the 21st Century, 2025–2040* (Washington, DC: Department of the Army, 2017), 8.

revolutionary changes.”¹⁷ Future conditions of warfare will be characterized by “an ability to synchronize multi-domain capabilities against an artificial intelligence-enhanced adversary with an overarching capability to visualize and understand the battlespace at even greater ranges and velocities.”¹⁸ What emerged from these studies was what the Army now calls multidomain operations (MDO), a new Joint Force future warfighting concept that is based on most of the ideas presented in previous Service and Joint Staff documents.

In multidomain operations, enemy forces will use manned and unmanned systems to locate U.S. forces throughout the depth of the expanded battlefield, across all domains, and target communications networks, logistics, and formations with integrated ground, air, maritime, cyberspace, and space strike capabilities. As a result, U.S. forces remain at a maximum distance for as long as possible, while simultaneously seeking opportunities to overwhelm U.S. capabilities with direct and indirect fires. If their outer defensive belt is breached, the enemy will attempt to prevent freedom of movement and maneuver by massing joint fires and employing precision munitions at extended ranges to disrupt command and control, logistics sustainment capability, and the ability to assemble or mass forces.

In multidomain operations, friendly forces are simultaneously linked in time, function, and physical space across more than one domain to overcome an enemy’s strengths by converging capabilities across domains, environments, and functions to overwhelm and defeat enemy systems. MDO visualize an extended operational framework composed of four layers: physical, temporal, virtual, and cognitive.¹⁹ Forces and capabilities, in and through multiple domains, are synchronized and converged to limit enemy options and strike enemy systems with cross-domain maneuver or fires. Strategic and operational fires, operational and tactical maneuver, and operational and strategic support functions are employed in the physical, virtual, or cognitive layers to concentrate effects at decisive spaces and cause the enemy to react, displace, or reveal physical, virtual, and cognitive dispositions.²⁰

Multidomain operations are based entirely on a systems warfare construct. The enemy is understood as a system composed of subsystems with specific nodes and pathways. Once the system’s structure is identified through a systems warfare analysis, multidomain capabilities are employed to converge a combination of fully integrated capabilities in time and space sequentially to degrade or destroy key nodes

¹⁷ *The Operational Environment and the Changing Character of Future Warfare* (Fort Eustis, VA: U.S. Army Training and Doctrine Command, 2017), 2, 6.

¹⁸ *The Operational Environment and the Changing Character of Future Warfare*, 6.

¹⁹ *U.S. Army Concept: Multi-Domain Combined Arms Operations at Echelons Above Brigade, 2025–2045*, TRADOC Pamphlet 525-3-8 (Fort Eustis, VA: U.S. Army Training and Doctrine Command, 2018), 13, 18–19, 90. This document tends to be repetitive and restates concepts in several different ways throughout the document. To attempt to construct a more coherent summation of the concept, key ideas have been consolidated rather than quoting extensive sections of the document directly.

²⁰ *U.S. Army Concept*.

within the system. As these nodes are influenced, windows of superiority open in one or more domains, allowing cross-domain maneuver and fires to create additional vulnerabilities that can be subsequently attacked. This process of *dis-integrating* the enemy's defensive systems will ultimately lead to the isolation, dislocation, disintegration, or destruction of enemy forces in detail. This systems approach requires dynamic situational understanding and precision targeting to maximize the effects of other actions on the battlefield.²¹

The essential conceptual lynchpin to MDO is the ability of the Joint Force to employ mutually supporting lethal and nonlethal capabilities from one or more domains into a single domain or multiple domains as needed. Maneuvering across and within all domains to defeat the enemy is called a cross-domain maneuver. Cross-domain maneuver integrates and synchronizes multidomain effects to enable freedom of movement and action and to gain positions of advantage.²² It has several enabling functions: intelligence and reconnaissance and surveillance are continuously conducted in all layers (physical, virtual, temporal, and cognitive) and in all domains to see and understand the entire environment, while uncovering enemy intentions, capabilities, and likely decisive points that can be exploited to disrupt or weaken the system. Cyberspace and space-based systems are integrated with ground and airborne reconnaissance to support deception or deny the enemy information and situational understanding to enhance the survivability and freedom of action of U.S. forces.²³

Cross-domain maneuver supports the systems warfare approach to locate and destroy, dislocate, or isolate key enemy capabilities through dynamic situational understanding and precision targeting. These actions are essential to the systems warfare approach. A shared situational awareness in all domains by the entire Joint Force simultaneously is intended to maximize the effects of other actions on the battlefield through precision targeting of key nodes within the enemy system. This is accomplished by converging multiechelon, multidomain effects in depth to create windows of superiority and gain the initiative. Once the required capabilities are combined and fully integrated in time and space, they are brought to bear for a single purpose. Until they are converged, units will be disaggregated—dispersed along multiple axes employing deception, protection, mobility, and shared situational understanding to infiltrate the battlespace. In doing so, they will create ambiguity, causing the enemy to react to multiple threats and disperse combat power, creating opportunities for exploitation. Once a weakness is identified, friendly forces aggregate rapidly and unpredictably by converging physical, virtual, and cognitive capabilities at the decisive

²¹ *U.S. Army Concept*, 10–11, 16, 23, 32, 34. “Dis-integrate (with a hyphen) is used throughout the EAB [echelons above brigade] concept in a broader systems warfare context to express the convergence of multi-domain capabilities against specific nodes and pathways of a system or subsystem (including C2). Sequentially degrading parts of the system creates additional vulnerability ultimately leading to the overall defeat of the larger system.” *U.S. Army Concept*, 16.

²² *U.S. Army Concept*, 18, 20, 86.

²³ *U.S. Army Concept*.

space and time to defeat, disrupt, or isolate the enemy—the intent to dis-integrate the enemy system—then disaggregate again to maintain operational tempo, exploit the initiative, and limit the enemy’s ability to respond with massed fires and attacks. In this manner, cross-domain maneuver continuously and expeditiously challenges the enemy system structure physically, virtually, and cognitively. As a result, the Joint Force can identify vulnerabilities and opportunities for exploitation and converge multiple disaggregated capabilities from different domains to create and exploit windows of superiority against critical enemy vulnerabilities.²⁴

APPLICATION AND CONSIDERATION FOR AMPHIBIOUS OPERATIONS

Multidomain operations are generally well suited to an amphibious force launching from the sea to conduct a landing within the littorals. An American amphibious force is a combined arms team that is inherently joint or multi-Service, self-deploying, self-sustaining, and capable of operating as a disaggregated and aggregate force. Amphibious operations require extensive command and control capabilities for the integration of maneuver and supporting elements, requiring the ability to operate within multiple domains (e.g., air, maritime, and land) simultaneously, conduct operations from long distances, and support once ashore.²⁵ Speed of action, sea control, and power projection are essential elements of amphibious operations that are compatible with the multidoman requirement for converging naval, air, and ground force capabilities in the physical, virtual, and cognitive layers within the operational area for cross-domain maneuver against enemy critical vulnerabilities. An amphibious force can be employed to seize or defend advanced naval bases or conduct land operations by projecting and sustaining combat power ashore. As with other elements of the Joint Force, amphibious forces will be expected to employ lethal and nonlethal fires, conduct cyberspace attacks, employ electronic warfare, conduct targeted deception along with a full range of operations security measures, and maintain information environment operations.²⁶

Because the enemy will target headquarters, command information systems, naval concentrations, airports and seaports, and bases with long-range fires, it is essential that these enemy fires capabilities are defeated early to allow amphibious forces the freedom of action and protection necessary to land ground units and allow air and maritime forces to support cross-domain maneuver. Thus, multidomain operations must address the protection of these critical targets by integrating ground, air, and sea ballistic missile defenses with obscurants, decoys, and false target generators to limit the effectiveness of enemy missiles and long-range interdiction aircraft, while

²⁴ *U.S. Army Concept*, 10–11, 22–23.

²⁵ *Amphibious Operations*, I-1.

²⁶ *U.S. Army Concept*, 24–26; and Maj S. R. Burlison, “The Future of USMC Amphibious Doctrine” (master’s thesis, Command and Staff College, Marine Corps University, 2013), 5–6.

jammers blind enemy sensors. At the same time, an offensive employing a long-range strike capability supported by intelligence, surveillance, and reconnaissance sensors sharing targeting information with air, ground, sea, electronic warfare, cyber, and space assets will be directed against enemy ballistic missile sites and other weapons systems that prevent air and maritime access.²⁷

To be successful in multidomain operations, it is currently assessed that an amphibious force must maneuver with a reduced signature from distances beyond 65 nautical miles—considered to be the optimal distance that offers protection from enemy long-range strike capabilities—to arrive at multiple penetration points using amphibious, airborne, or helicopter-borne assault forces. These forces will be prepared to identify, bypass, or breach obstacles and integrate with other cross-domain capabilities to defeat, seize, or limit the effectiveness of key enemy units, cruise and ballistic missile sites, or long-range air and missile defenses.²⁸

Access is essential to projecting power ashore and is provided by naval shipping, connectors, and antimine warfare.²⁹ The number and type of connectors determines how rapidly forces can move from ship to shore and then how rapidly forces can be offloaded, assembled, and moved. An amphibious force cannot be employed without a significant effort to suppress enemy air and missile defenses. As forces move closer to shore, reaction time is steadily reduced and the enemy can employ a greater number of weapons against ships, aircraft, and connectors. Naval surface fire support to ground forces may be diverted to counter threats to surface ships and landing areas must be cleared of mines and other obstacles. Thus, the amphibious force in multidomain operations must balance and protect both movement and maneuver of all elements. Surface ships, while remaining disaggregated, must transport, launch, and support air and ground elements. Air combat elements must provide defensive air cover, long-range strike capability and close air support, and ground and support elements must be delivered ashore by connectors or swim to shore from long distances.³⁰

Changing operational conditions in all domains will require instantaneous sharing of situational awareness and targeting data or what MDO refers to as *dynamic situational understanding*. This will require the amphibious force to plan, coordinate, control, and employ the necessary communications, data links, and sensors to locate,

²⁷ *U.S. Army Concept*, 37, 42; and Wieder, “Assessing Maritime Aspects of the AirSea Battle Concept,” A-1-A-5.

²⁸ This assessment is offered in “Gaining and Maintaining Access: An Army-Marine Corps Concept,” MARADMIN 210/14, Marines.mil, 22 April 2014, 9–10. Similar perspectives are reflected in an assessment by Nathan Freier, “Projecting Force Ashore: Gaining and Maintaining Operational Access,” Center for Strategic and International Studies, 6 April 2012.

²⁹ For the purposes of this discussion, *connectors* refer to surface or air conveyance that transports troops, supplies, or equipment from ship to shore, ship to ship, or shore to ship.

³⁰ Burlison, “The Future of USMC Amphibious Doctrine,” 10. See also *United States Marine Corps: 2025 Vision and Strategy* (Quantico, VA: Headquarters Marine Corps, 2006), 5; and Bradley Martin, *Amphibious Operations in Contested Environments: Insights from Analytic Work* (Santa Monica, CA: Rand, 2017), 3, 7, 9, <https://doi.org/10.7249/CT476>.

target, and attack enemy forces utilizing an integrated fires network and an integrated air and missile defense system, while also employing cyber, electronic warfare, space, intelligence, surveillance, and reconnaissance assets and providing force protection.³¹

To meet this information-sharing requirement, the maritime domain should be understood as a single battlespace with air, land, and sea components to support maneuver, envelopment, and deception that employs disaggregation, aggregation, and cross-domain approaches to conduct amphibious operations. Spreading out combat power can mitigate risk in land, naval, air, amphibious, and cyber domains. Disaggregation increases the flexibility, capability, and scope of ground combat units, allowing them to select the time and place of attack. Speed of movement to shore and protection of ground forces and support ashore with armor are all necessary components of a successful amphibious operation.³²

CONCLUSION

With U.S. national security strategy documents declaring Russia and China as the primary threats to American security and global dominance, the Joint Staff has pressed the Services to address the idea of a future war where Chinese or Russian aggression will need to be halted and defeated. Originating as AirSea Battle and later Multidomain Battle, the now-titled *multidomain operations* is the Army's new talisman and it is being elevated to the Joint Force. The MDO outlines an agile force reacting, responding, initiating, aggregating, and disaggregating and capable of multidomain convergence, all without loss of momentum. Forces are completely interoperable and are tailored and task organized based on the mission. Command and support relationships are equally flexible and unambiguous. This dynamic interplay is intended to create temporary protected corridors, windows of opportunity, and positions of advantage that simultaneously result in freedom of maneuver, protection of friendly forces, and restricting the enemy's ability to respond effectively. As forces consolidate gains, exploit tactical success, and maintain the initiative, the enemy's capability and will to resist are broken.³³

Success in multidomain operations is dependent on protecting key elements of combat power from enemy weapons systems similarly arrayed. Deception, electronic warfare jamming, information environment operations, long-range fires, hardened facilities, and force dispersion are essential to withstand the enemy's efforts to deny operational access and limit freedom of movement.³⁴

³¹ Scott W. Harold et al., *U.S.-Japan Alliance Conference: Meeting the Challenge of Amphibious Operations* (Santa Monica, CA: Rand, 2018), 37, 55, <https://doi.org/10.7249/CF387>.

³² Maj Samuel L. Meyer, "Modern Amphibious Operations: Why the United States Must Maintain a Joint Amphibious Forcible Entry Capability" (master's thesis, Marine Corps University, Command and Staff College, 2012), 21, 24, 57; and Jeffrey D. Parker Jr., "An Innovative Approach for the Development of Future Marine Corps Amphibious Capability" (master's thesis, Naval Postgraduate School, 2015), 7, 16, 121.

³³ *U.S. Army Concept*, 27, 47.

³⁴ *U.S. Army Concept*, 31.

The system approach central to MDO requires that critical enemy nodes be identified rapidly and understood as part of a complex system to identify and task capabilities that will reduce the enemy's ability to respond, while also opening opportunities for friendly air and sea maneuver to gain progressive positions of advantage. As enemy system nodes are overcome, the cross-domain convergence of ground maneuver forces, fires, air, and naval assets integrated with electronic warfare, cyberspace, and offensive space control are intended to aggregate unexpectedly at decisive points or spaces against enemy ground forces.³⁵

For amphibious forces, the emphasis on speed, concentration, surprise, and applying friendly strengths against enemy weaknesses is nothing new. Employment of the operational art—maneuver of forces in time and space to apply precise offensive power for a decisive result that fits into an overall operational design—needs to be better understood and applied. One of the most important considerations is the need to conduct an over-the-horizon assault to gain surprise and protection. Air, surface, and subsurface areas of the maritime domain must be understood as a single entity. Adequate command and control, supported by timely and reliable information, and logistics sustainment from sea-based platforms will be essential.

The enemy's reliance on a layered, linear defense to deny access will require spreading out those defenses, creating weaknesses and gaps in the defensive structure. Narrow attacks that seek rapid penetration, relying on speed and momentum, supported by close coordination of fires (e.g., naval surface fire support, Air Force and Navy airpower, Army and Marine artillery) to exploit multiple gaps, or converge on penetration points and prevent the enemy from employing reinforcements is the essential operational art for an amphibious force moving from sea and continuing onto land.³⁶

Unfortunately, without clear operational or doctrinal guidance, multidomain operations remains a hazy concept. It blurs details with an avalanche of words, casting about for just the right formula. Although MDO presents itself as an operational construct, in many ways it is profoundly tactical, layering domains on a force without any apparent appreciation of the operational art or the operational level of war.

Despite what is implied in the multidomain operations concept, the future battlefield will neither allow aggregated large-scale maneuver nor are such formations logistically sustainable. Regiments, brigades, and battalions are too large and cumbersome; they are incapable of the flexibility and adaptation required by MDO. They must be restructured as staff organizations that function as supporting assets of small unit commanders. Company and platoon-size operations are the true basic building blocks of MDO. They can be aggregated and disaggregated quickly, can as-

³⁵ *U.S. Army Concept*, 45.

³⁶ Maj Patrick M. Strain, "Amphibious Operations in the 21st Century: A Viable Forced-Entry Capability for the Operational Commander?" (research paper, School of Advanced Military Studies, U.S. Army Command and General Staff College, 1993), 5, 27-31, 44, 46.

simulate assets and information, can task organize, and can operate with minimum command and control. They rely on speed, initiative, and flexibility and possess the essential firepower necessary for shock effect. These units must be small, dispersed, and self-contained. Smaller units infiltrate more easily, moving to assault positions as close to the objective as possible. Extensive reconnaissance and intelligence collection to identify gaps and vulnerabilities is channeled to the small unit from all resources of the Joint Force. Units maintain the closest possible coordination of fires (of all domains) with maneuver. Continuous and redundant communication and, most importantly, information flow between all elements is essential. Logistics support must be sustained and objectives must be precisely defined and limited. This is a key failing of MDO: there seems to be no end. No force can simply sustain momentum and exploit advantage indefinitely. This will inevitably lead to disorganization and culmination. No amount of initiative can make up for a lack of strategic-operational purpose that is the core of the operational art. It is important to avoid the falsehood that MDO have some moral component; these cross-domain, multilayered actions will succeed in breaking the will of the enemy, leading to collapse. This is the long-lost dream of Napoleon Bonaparte, Helmuth von Moltke, and H. Norman Schwarzkopf—it is no longer possible and is a dangerous conceit.

Small units will have to be of high quality, its members possessing a combination of spirit, physical strength, and emotional fitness. Age, therefore, will not necessarily be a restriction. In future battles, skill in technologies, tactics, and techniques will be more important than numbers. The amphibious force, as an essential part of MDO, will have to employ the operational art with smaller, faster forces, maximizing efficient mobility from sea to shore and providing the fire support and sea-based logistics support necessary to ensure protection and tempo. The future points to the dominance of highly mobile small units heavily supported and sustained by higher echelons integrating and synchronizing multidomain capabilities in time for a decisive effect. The amphibious force already has the essential elements necessary for MDO, but it must adapt structures, personnel, equipment, transportation, and resources accordingly.

CHAPTER NINETEEN

The Future Is Amphibious

The Role of Naval Special Warfare in the Great Power Competition

Sulakshana Komerath

In May 2018, then-Secretary of Defense James N. Mattis announced, “We will continue to prosecute the campaign against terrorists that we are engaged in today, but great power competition (GPC), not terrorism, is now the primary focus of U.S. national security.”¹ Specifically, the United States will prioritize curbing the expanding military influence of China and Russia globally.² For the foremost military units involved in prosecuting the effort against terrorism, particularly Special Operations Forces (SOF), this will require a paradigm shift. For the Naval Special Warfare (NSW) community in particular, it will likely require a return to its amphibious roots after nearly two decades largely focused on ground missions.³ While some challenges may arise during the change in mission sets, NSW units are, in fact, uniquely postured to support several of the strategic problems that will arise in the great power competition. Naval Special Warfare has the resources, skills, and capacity to be a significant force multiplier for the United States during a time of great power competition, but some significant changes need to occur first. Specifically, a rebalance of the primary

¹ James N. Mattis, “Remarks by Secretary Mattis on the National Defense Strategy,” Department of Defense, 19 January 2018.

² Oliver Staley, “The US Is Talking about ‘Great Power Competition.’ What Does that Mean?,” *Quartz*, 5 May 2018.

³ For the purposes of this discussion, *Naval Special Warfare* or NSW specifically refers to both Navy SEAL (sea, air, land) operators as well as special warfare combatant-craft crew, or the small boat operators who work alongside SEALs.

NSW mission set back to maritime-based and amphibious operations from counter-terrorism.

NAVAL SPECIAL WARFARE MISSION/CAPABILITIES

Since 11 September 2001 (9/11), NSW, along with the rest of the SOF community, has been intensely involved in countering violent extremist organizations and adversarial regimes globally. In support of the Global War on Terrorism and overseas contingency operations, members of the NSW community have spent years in Iraq and Afghanistan honing their skills in ground warfare, advise and assist, village stability operations (as part of the counterinsurgency strategy), direct action, and targeting of high-value individuals.⁴ The May 2011 Operation Neptune Spear, the assassination of Osama bin Laden in Pakistan, was considered a signature NSW operation in recent history.⁵ In many ways, however, it represented a departure from most historic NSW actions in that it was entirely land-based and that NSW assets were the finish force (as opposed to a support or facilitation element). The elements of this operation incorporated only a few of the gamut of skills or missions to which NSW trains. The Navy outlines a far wider range of capabilities for NSW assets that incorporates amphibious warfare capabilities, including maritime interdiction, special reconnaissance, amphibious assault, and underwater demolition.⁶ It is likely that this latter set of skills will play a larger role in the great power competition, due in part to the fact that many flash points in this conflict have an amphibious aspect to them (figure 67).

Prior to the Global War on Terrorism, the NSW community's focus was largely on maritime and amphibious missions, particularly in Grenada, the Persian Gulf, and several other theaters.⁷ In October 1983 during Operation Urgent Fury (Grenada), NSW played an important role in conducting amphibious reconnaissance of the island's critical infrastructure prior to the multitiered, joint assault. In the Persian Gulf, NSW played a role in Operation Earnest Will (1987–88) by adapting two oil-servicing barges into mobile sea bases. These bases served as hubs from which NSW forces conducted patrol and interdiction operations in the northern Persian Gulf to maintain the security of sea lines of communication.⁸ During both the 1990 Gulf War

⁴ Per 10 USC 101 (a)(13) and FAR 2.101, the term *contingency operation* refers to a military operation that requires members of the armed forces to become involved in military actions, operations, or hostilities against an enemy of the United States or against an opposing military force; or that results in the call or order to, or retention on, active duty of members of the uniformed Services or any other provision of law during a war or during a national emergency declared by the president or Congress. Jim Garamone, "Mullen Says SEAL Team Represents All of Military," Department of Defense, 10 May 2011.

⁵ Cheryl Pellerin, "Panetta: U.S. Remains Focused on Pursuit of al-Qaida," Department of Defense, 27 April 2012.

⁶ *Naval Special Warfare*, Navy Warfare Publication (NWP) 3-05 (Washington, DC: Office of the Chief of Naval Operations, Department of the Navy, 2013).

⁷ Dick Couch, "SEALs: 50 Years and Counting," *Naval History Magazine* 26, no. 1, January 2012.

⁸ *Naval Special Warfare*, 1–6.

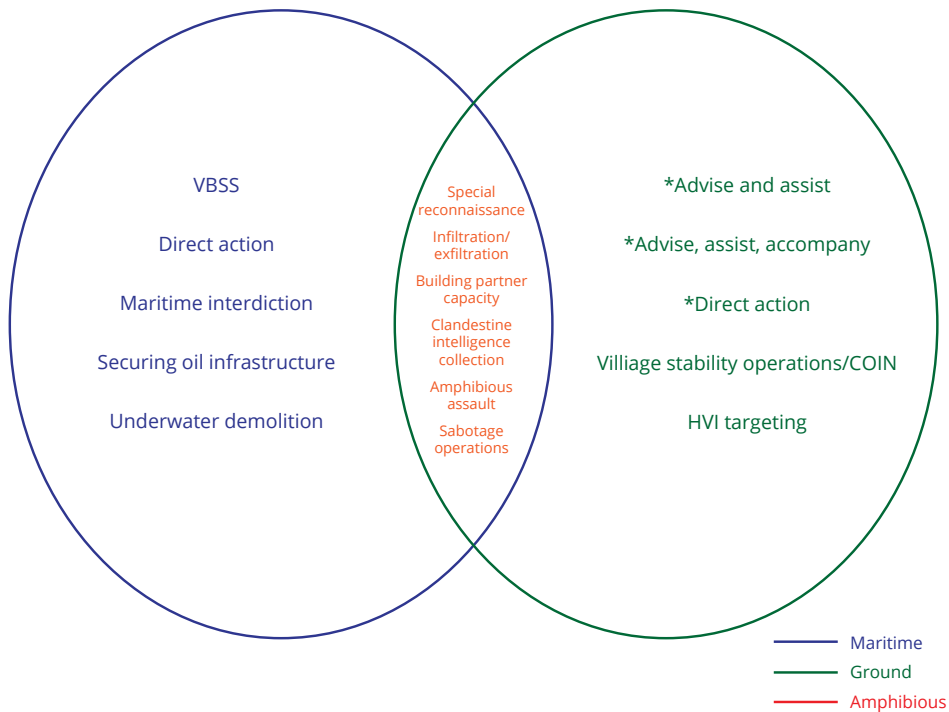


FIGURE 67

The skill sets and operations Naval Special Warfare (NSW) trains for varies across the maritime, ground, and amphibious domains. The nature of the great power competition conflict will likely require greater emphasis on the amphibious skill set. *The asterisked items represent actions that have historically been conducted on land, but could theoretically occur in a maritime or amphibious sense.

Courtesy of author, based on Naval Special Warfare, NWP 3-05

and 2003 Iraq War, NSW was employed to secure and hold maritime critical infrastructure (e.g., gas/oil platforms) prior to the ground assault into the country. Before 9/11, one of NSW's regular responsibilities was enforcing the United Nations oil embargo against Iraq. This entailed visit, board, search, and seizure (VBSS) of maritime vessels suspected of attempting to smuggle oil out of Iraq, as well as smuggling contraband into the country. VBSS is an example of an important amphibious warfare skill that NSW continues to train for and employs when needed, but it would not be considered a focal point of their operations in the last 18-plus years.

To be sure, the ground warfare and targeting experience acquired in the Afghanistan and Iraq theaters has broadened NSW's inventory of skills, and they can be extrapolated in some ways to the more strategic great power competition realm (e.g., clandestine intelligence collection, high-value targeting techniques). NSW's nonkinetic skill set may be more commonly applied when dealing with Russia and China, with a specific emphasis on maritime and amphibious tactics. Additionally, the role that NSW will play will likely be in more of a supporting role, rather than as a finish force, barring a direct confrontation with near-peer rivals.

FIGURE 68
 The geography of the disputed Parcel and Spratly Islands demonstrates the complexity of the problem as well as the multiple actors who have a stake in the conflict.
Voice of America, adapted by MCUP



China

In the Pacific, concerns continue to grow regarding the expansion of Chinese influence beyond their own borders. Since the 1990s, China has made a concerted effort to militarize the Spratly and Parcel Islands despite explicit claims that it would not do so.⁹ The Spratly Islands are a cluster of islands in the South China Sea at the center of a territorial dispute between China, Taiwan, Malaysia, the Philippines, and Vietnam due to its natural resources (e.g., oil and gas reserves) and its geographic position along a major maritime trade route. The Parcel Islands are disputed between China and Vietnam for similar reasons, including significant oil reserves and a strategic location along a major sea line of communication (figure 68). Due to the U.S. relationship with several of the disputing nations, and the need to maintain freedom of navigation in the area, the U.S. Navy and its allies have actively maintained a presence in the international waters in the region. This is one of the key disputes at the heart of the great power competition conflict for the Navy and its allies.

The Chinese have built up their presence in both locations and have begun to exert more control in recent years with impunity. As they are further emboldened and continue to build up military fortifications in the Parcel and Spratly Islands, conventional maritime transits through these corridors may become more challenging for the U.S. Navy, or at least may be more fraught due to an increased risk of confrontation. Fears continue to grow that China will declare the area surrounding

⁹ “China Has Militarised the South China Sea and Got Away with It,” *Economist*, 21 June 2018.

these disputed territories as internal waters, thereby making the region closed to maritime transits and escalating tensions.¹⁰ In the interim, China has been taking actions that render these territories under Chinese control in all but name. As of April 2020, China announced the creation of two new districts to administer the Paracel and Spratly Islands.¹¹ While the U.S. Navy may continue to challenge those claims through freedom of navigation operations, as movement through this territory becomes increasingly challenging and/or denied, it advances the suitability of special operations forces to use their skills to help address this problem.

More effort and a wider range of operations will likely be required to monitor the activities and developments on the islands and their surrounding territory, as it becomes more restricted. Naval Special Warfare is accustomed to operating in hostile and denied territory, and the geography of this dispute allows them to apply their amphibious skill set, including special reconnaissance, infiltration and exfiltration, and their covert and clandestine operational abilities. The need to operate quietly in small groups to conduct small-scale missions is a fundamental part of NSW training. There are a multitude of applications for the NSW skill set that can be applied in the South China Sea, and these options range from covert to overt and less to more provocative (figure 69).

One of the recurring issues in the Paracel Islands is that of disputed oil claims and specifically the Chinese deployment of a mobile oil rig, *Haiyang Shiyou 981*. In 2014, Vietnam and China sparred over the movement of this rig into Vietnam-claimed areas in the vicinity of the Paracel Islands, and during the span of two months, *Haiyang Shiyou* went from attempting to drill oil to retrograding from disputed waters. This situation resolved itself after China voluntarily withdrew *Haiyang Shiyou*, but the broader issue is hardly settled. It is likely that a related or similar disagreement will reemerge. NSW's ability to conduct amphibious reconnaissance missions, secure facilities, or train partner nations to carry out similar effects could potentially be an option to address future deployment of the *Haiyang Shiyou 981* or an analogous scenario.¹²

The ability to secure maritime critical infrastructure using amphibious means may be a transferable skill to the great power competition. Special reconnaissance, or even sabotage or capture, of maritime assets are all options NSW can apply against an adversary. Actions such as VBSS of military vessels or capture of assets would likely fall into the more provocative category, but other potential actions could include intelligence collection or even sabotage. See figure 2, a matrix of operational

¹⁰ According to the United Nations Convention on the Law of the Sea, a nation's internal waters refers to those that face toward the land, except in archipelagic states, and include waterways such as rivers, canals, and sometimes the water within small bays. "Reading between the Lines: The Next Spratly Dispute," Asia Maritime Transparency Initiative, 21 March 2019.

¹¹ "Vietnam Protests Beijing's Expansion in Disputed South China Sea," Reuters, 19 April 2020.

¹² Michael Green et al., "Counter-Coercion Series: China-Vietnam Oil Rig Standoff," Asia Maritime Transparency Initiative, 12 June 2017.

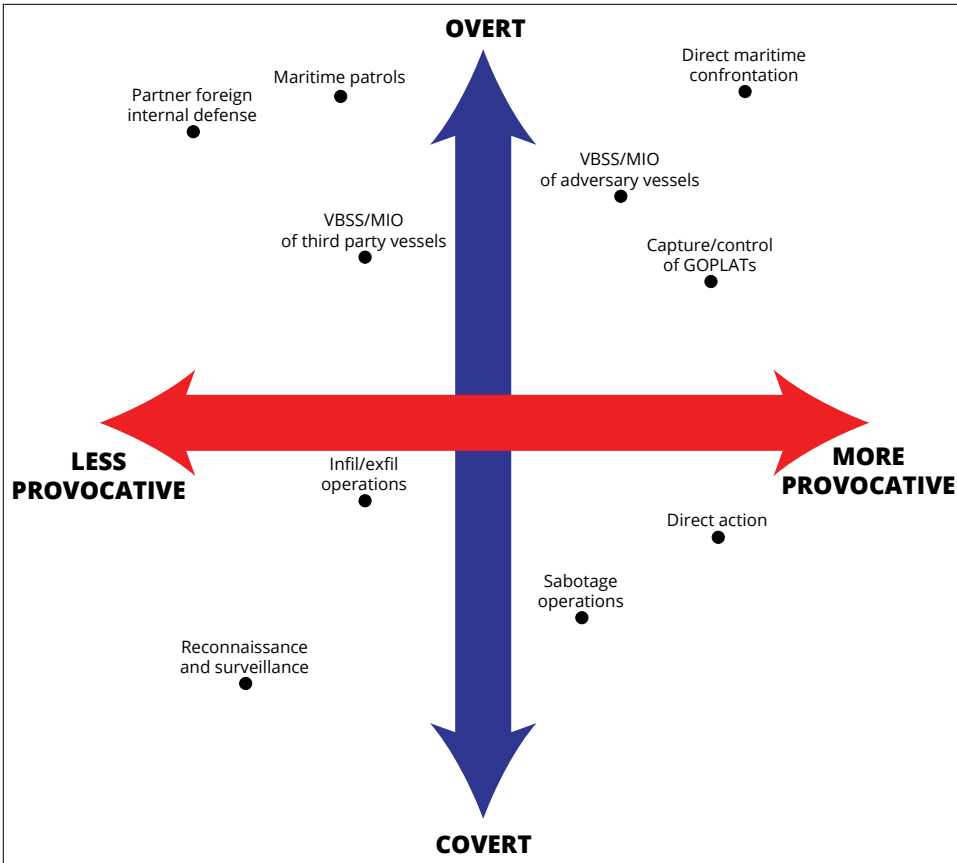


FIGURE 69

This matrix is meant to be a rough diagram of various skills ordered by their level of directness and how they may be perceived by the adversary (as more or less provocative). There may be some cultural differences between Russia and China in that regard, but it is meant to be a broad illustrative tool. It also demonstrates the range of actions offered by the NSW skill set.

Courtesy of the author, adapted by MCUIP

skills NSW can employ, and how these actions may fall along a scale of overttness or provocativeness.

Russia

In February 2014, a mix of Russian conventional and special forces infiltrated the Crimean Peninsula and helped annex this territory, which remains under Russian control. Despite international condemnation for Russia’s actions, no cohesive U.S. or international response was issued to challenge the military action in Crimea in any substantive way. As with China, Russia’s unchecked behaviors have been condoned by the international community, and over time the conversation has changed to how

we can counter Russian influence. If the United States decides to challenge Russian control or influence without risking a potential escalation of force between sovereign states, a skillful, measured approach is needed.¹³

While some scholars believe that the circumstances surrounding Crimea are unique and may not be a model for future Russian aggression, the action is part of a wider trend.¹⁴ U.S. geopolitical rivals are increasingly broadening their influence via the maritime domain by increasing their access to ports in the vicinity of and outside their own territorial waters. Access to the Sevastopol port allows Russia stronger control and access to the Black Sea.

This demonstrates the increasing need for the United States to offer military options outside of traditional, naval interactions. Crimea is almost entirely surrounded by water and the Russians employed a combination of amphibious irregular warfare and conventional tactics (a.k.a. hybrid warfare) to secure and annex it. While Russian control of Crimea has remained unchallenged, the NSW skill set once again offers some covert and overt amphibious options, including intelligence collection as well as sabotage operations to disrupt the flow of cargo, personnel, or equipment between Russia and Crimea.

Countering Russian influence in Crimea is one option, although there are likely to be other potential maritime-based disputes with Russia, such as in Syria where Russia maintains an airfield at Khmeimim and a port at Tartus. The locations of these facilities expand Russian geographic influence and is believed to be of enormous strategic value to Russia. Russia's long-term goal in Tartus may be an attempt to create an antiaccess/area-denial (A₂/AD) bubble over Syria, making it inaccessible to North Atlantic Treaty Organization (NATO) allies in the event of a conflict.¹⁵

Some Russian experts argue that Russia seeks to avoid direct confrontation with NATO for as long as possible as it pursues its agenda to increase its own influence while weakening that of America and its partners.¹⁶ If this is true, all domains are in play, and the ability to maneuver on both land and sea will become more critical. Once again, as territory becomes increasingly denied, military options narrow toward more covert and clandestine options so as to avoid a direct confrontation or escalation of force between two sovereign state actors. Naval Special Warfare has the training, resources, and capability to be a force multiplier in the great power competition, but some significant challenges must be overcome before NSW can maximize the potential of its role in the GPC.

¹³ Michael Kofman et al., *Lessons from Russia's Operations in Crimea and Eastern Ukraine* (Santa Monica, CA: Rand, 2017), <https://doi.org/10.7249/RR1498>.

¹⁴ Kofman et al., *Lessons from Russia's Operations in Crimea and Eastern Ukraine*.

¹⁵ Edward Delman, "The Link Between Putin's Military Campaigns in Syria and Ukraine," *Atlantic*, 2 October 2015.

¹⁶ Ulrich Kühn, *Preventing Escalation in the Baltics: A NATO Playbook* (Washington, DC: Carnegie Endowment for International Peace, 2018).

CHALLENGES

The very public wins by NSW have garnered significant attention and media coverage in the last 20 years. Countering both Chinese and Russian influence will mean exercising patience, restraint, and resourcefulness compared to tactics that, while groundbreaking, have become relatively routine against nonstate actors (e.g., Islamic State of Iraq and al-Sham [ISIS] or al-Qaeda), such as targeting of individuals, raids, and direct action missions. Naval Special Warfare may more frequently embark on amphibious missions, but the actions will likely be a means to an end, rather than the end itself. As in historic operations, NSW may be expected to play a supporting, rather than a starring role in most military actions.

This new phase in strategic conflict may not lend itself as easily to films and best-selling books, due to the likely quieter and smaller-scale operations NSW will be expected to conduct. Many recruits were likely attracted to the very forward-leaning and traditionally aggressive military actions of NSW popularized in media, but may not have the opportunity to engage in firefights and raids with the frequency of their predecessors. Should this matter in the context of the U.S. transition to a more strategic rivalry and attempt to counter near-peer competitors? It may, as an entire generation of officers, senior noncommissioned officers, and enlisted ranks honed by their counterterrorism experience now in leadership positions are asked to flex to meet a completely new type of challenge. Many NSW personnel have significantly less maritime experience than generations past. This obstacle is not insurmountable, but it may take some time to adjust.

Overall, the shift from counterterrorism to balancing the demands of supporting the great power competition mission in addition to maintaining some focus on counterterrorism will require careful consideration of NSW assets and how they can be apportioned. Additionally, refocusing on a more strategic, likely less dynamic global security problem will be a cultural shift for NSW. The last two decades have largely focused on ground skills against nonstate actors, but with great power competition, the playing field is about to become narrower, in a sense. Countering state entities outside a declared theater of active and armed combat means leaning on more covert and clandestine actions, operating more frequently in the maritime and amphibious domain, and having a more-consistently lighter and stealthier footprint. As the maritime domain becomes increasingly contested by our great power competition rivals and used as a medium to expand their power, it is also an opportunity to exert U.S. strength to counterbalance our adversaries using tools we already have at our disposal. The sooner these changes are made, the faster the United States can adapt to the new challenges posed by our Russian and Chinese rivals.

To maintain an advantage over our adversaries, the United States needs the upper hand in knowledge about their plans, capabilities, and actions. This will require a holistic approach to intelligence gathering, maintaining awareness of the battlespace, and keeping military as well as political and economic tools available to manage the

GPC rivalry. Given that some of the critical nodes of the conflict may include the amphibious domain, NSW has a significant role to play in this new construct.

Robert P. Haffa Jr. argues that, unlike the Cold War, the U.S. GPC strategy should emphasize the use of traditional military force (as opposed to nuclear power), and to do this successfully requires the ability to project strength while exercising restraint.¹⁷ Naval Special Warfare and SOF represent the peak of American military aptitude spanning multiple domains, all of which will be in greater play than during counterterrorism efforts. Naval Special Warfare offers a chance for the United States to gain strategic advantages in the GPC if it can move past recent history and refocus to enhance their amphibious, more unconventional capabilities.

¹⁷ Robert P. Haffa Jr., “The Future of Conventional Deterrence: Strategies for Great Power Competition,” *Strategic Studies Quarterly* 12, no. 4 (2018): 94-115.

CHAPTER TWENTY

Uncertainty, Maskirovka, and Militarism

Russian Perspectives and Amphibious Assault Potential in the Arctic Near Future

Ellen A. Ahlness

The Navy will be ready for the future”—Courtney St. John, the climate change affairs officer for the *Navy Task Force Climate Change*, maintains that readiness will be assured by a task force created by the chief of U.S. Naval Operations in 2009 in response to the consequences of climate change for naval and amphibious operations.¹ Military forces around the world are responding to geophysical planetary changes and an uncertain future, as climate change has serious implications for military operations and structures.² Discussions on this topic highlight the growing vulnerability of amphibious operations in the Pacific, as evidenced by the broad body of research and presentations addressing the future of ambitious operations in the Pacific littorals and equatorials. While pertinent, these conversations disregard the Arctic, a region also impacted by climate change and national defense (figure 70). The Arctic and Oceania are both bellwether regions for changing geophysical realities, however, and the Arctic is rarely considered a venue for amphibious operations outside of a niche body of intelligence officers.³ This disregard is puzzling, given the polar

¹ Jeremy Rosenburg, “U.S. Navy Bracing for Climate Change,” *Global Climate Change*, NASA, 21 March 2012.

² RAdm David Titley, USN, “The U.S. Navy’s Task Force Climate Change” (presentation, Jet Propulsion Laboratory, Pasadena, CA, 7 November 2011).

³ Ellen Ahlness, “Ethnographic Observations at Arctic Encounters” (lecture, Seattle, WA, 9 April 2018).



FIGURE 70
 Map of the Arctic region.
U.S. Central Intelligence Agency

region's natural and social features that lead to growing tensions and militarization. To be ready for the future, it increasingly seems that states and military forces must consider the strong possibility of amphibious operations in the Far North.

Some estimates suggest the Arctic will be open for commercial shipping as ear-

ly as 2050.⁴ These estimates anticipate an Arctic that is not only open for transit but for commercial shipping unaided by icebreakers during the summer months.⁵ Canada and Russia are the northern states with the most sizable Arctic coastlines. These coasts have historically been secure borders for these countries. Russia's coastline from the Barents Sea to the Bering Sea allowed its Northern Fleet to expand its area of operations. Today, with Arctic and non-Arctic states wanting to increase their economic and shipping activities in the region, Canada and Russia are increasingly aware of their exposed coasts.⁶

Researchers and policy-makers anticipate the growing potential of conflict in the Arctic region due to jurisdictional contestation and competition over natural resources.⁷ The United Nations Convention on the Law of the Sea prescribes Exclusive Economic Zones (EEZs) to states, which establishes their economic and sovereign rights on and below the surface of the sea from their shore extending out 200 nautical miles.⁸ These zones give states control over their maritime affairs and continental shelf resources. The EEZs, however, create a particular jurisdictional problem in the Arctic as shorelines converge as they near the North Pole, resulting in EEZs overlapping to increasing degrees. This leads to increased contestation among the eight Arctic states.⁹ This competition has manifested in concrete military activities. Since 2012, Russia's Northern Fleet warships have regularly sailed along the Northern Sea Route to its territories in the western and central parts of the Russian Arctic, including the New Siberian Islands.¹⁰

While Russia argues its northern military presence is merely defensive and emergency response preparedness—an assertion also expressed by Canada, Norway, and the United States during their patrols—other Arctic structures and behaviors have clearer military applications. Since 2010, Russia has invested significant fiscal and

⁴ Predrag Popović et al., "Simple Rules Govern the Patterns of Arctic Sea Ice Melt Ponds," *Physical Review Letters* 120, no. 14 (April 2018): 148701, <https://doi.org/10.1103/PhysRevLett.120.148701>; and Abigail Smith and Alexandra Jahn, "Sea Ice Melt Season Definitions and Variability," *Cryosphere* 13, no. 1 (2019): 1–20.

⁵ Bjørn Gunnarsson, "The Future of Arctic Marine Operations and Shipping Logistic," in *The Arctic in World Affairs: A North Pacific Dialogue on the Future of the Arctic*, 2013 North Pacific Arctic Conference Proceedings, ed. Oran R. Young, Jong Deog Kim, and Yoon Hyung Kim (Seoul, Korea: Korea Maritime Institute; Honolulu, HI: East-West Center, 2013), 37–61.

⁶ John Arquilla et al., white paper, "Russian Strategic Intentions," May 2019; and Donald S. Lemmen et al., eds., *Canada's Marine Coasts in a Changing Climate* (Ottawa, Ontario: Government of Canada, 2016).

⁷ Thomas J. Ballinger et al., "Subseasonal Atmospheric Regimes and Ocean Background Forcing of Pacific Arctic Sea Ice Melt Onset," *Climate Dynamics* 52 (September 2018): 1–16, <https://doi.org/10.1007/s00382-018-4467-x>; "Co-Chair Summary" (presentation, Melting Ice: Regional Dramas, Global Wake-Up Call Conference, Tromsø, Norway, 28 April 2009); and Popović et al., "Simple Rules Govern the Patterns of Arctic Sea Ice Melt Ponds."

⁸ United Nations Convention on the Law of the Sea (1982).

⁹ The Arctic states include Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden, and the United States.

¹⁰ Katarzyna Zysk, "Maritime Security and International Order at Sea in the Arctic Ocean," in *International Order at Sea: How It Is Challenged. How It Is Maintained*, ed. Jo Inge Bekkevold and Geoffrey Till (London: Palgrave Macmillan UK, 2016), 141–74, https://doi.org/10.1057/978-1-137-58663-6_7.

personnel resources to building the world's largest fleet of nuclear-powered icebreakers. Additionally, for the first time since the end of the Cold War, its national government approved construction of diesel-electric icebreakers earmarked specifically for its navy's use.¹¹ It appears that lack of attention on Arctic amphibious operations by powers other than Russia is not necessarily due to its limited possibility but rather to the lack of vision by these other states for the potential of amphibious operations in a Northern geophysical environment.

THE REQUIREMENTS OF AMPHIBIOUS OPERATIONS

Amphibious operations refer to an attack launched from the sea by naval and landing forces, typically including air support. This type of operation does not include marshaling or training forces or the actions following the establishment of the landing force. Amphibious operations include the planning, movement, assault landing, and support of the landing forces.¹² Amphibious operations require specific personnel competencies, technological and transportation features, and most importantly, the ability to conduct complex operations across military Services. Amphibious warfare ships are equipped with aviation and surface assault capabilities, as well as durability and self-defense systems. The forces also require tactical flexibility, rapid operational capabilities, and the ability to address multithreat environments. Amphibious operations are valued for their flexibility and were frequently used during World War II in both the European and Pacific theaters.

The Pacific campaign is a prime and durable example of the strategic value of amphibious flexibility. By distracting opponents in bypassing power centers, the Allies conferred many advantages.¹³ However, some scholars and military tacticians assert that the amphibious concept of warfare disappeared from military thinking during the 1960s to late 1980s.¹⁴ While this assertion remains contested when considering global operations, within the Arctic region, it is certainly true that amphibious operations were hardly on anyone's minds during this time period. The East and West were focused on other spheres, while at the same time, Arctic waters were far less accessible. However, one technique is essential to amphibious operations and remained on the forefront of political and military minds during these decades, in large part due to the Cold War. The United States and its allies practiced this tactic during World War II, but the Russian Federation was and is considered a master: deception.

¹¹ Zysk, "Maritime Security and International Order at Sea in the Arctic Ocean."

¹² *Field Service Regulations: Operations*, FM 100-5 (Washington, DC: Department of the Army, 1962).

¹³ Capt B. H. Liddell Hart, "The Value of Amphibious Flexibility and Forces," *Royal United Services Institution Journal* 105, no. 620 (11 November 1960): 483-92, <https://doi.org/10.1080/03071846009421139>.

¹⁴ Ronald M. D'Amura, "Campaigns: The Essence of Operational Warfare," *Parameters* 7, no. 2 (1987): 42-51.

DECEPTION AND *MASKIROVKA*: TWO SIDES OF THE SAME COIN

Deception operations, at their most basic, attempt to influence the beliefs, knowledge, or self-confidence of a decision maker. Depending on the deception operation (and its time/resource allowance), the deception efforts may be focused on pushing the decision maker toward a wrong decision or trying to increase situational uncertainty, thus driving them to delay an important decision. During World War II, Operation Bodyguard (14 July 1943–6 June 1944) demonstrated successful (yet complex) deception efforts that took place in the European theater. The Allies used simulations and disinformation to persuade the Germans that the D-Day landing was a feint, and that the actual invasion would occur later at Calais, France. As a result, German reserves were not committed to Normandy during the actual invasion. Deception, bred through ambiguity and uncertainty, led to the successful 6 June amphibious operation known as Operation Overlord.

Russia's application of deception in the modern era can be identified as early as the 1920s and 1930s, drawing from a tradition of expertise while incorporating new technologies and capabilities.¹⁵ At that time, the Soviet military explored numerous advanced military techniques under the leadership of Marshal Mikhail Nikolayevich Tukhachevsky. Tukhachevsky was a brilliant leader and theoretician who led pioneering efforts in deep battle that leveraged the use of tanks and aircraft in innovative ways and advanced operational concepts, such as airborne and deception.¹⁶ Unfortunately, he was purged in May 1937 and executed in June by Joseph Stalin in a misguided effort to maintain control over the military apparatus.

Russian strategists do not refer to deception as a military action in the same way as the West. Rather, the preferred lexicon is *maskirovka*, a more comprehensive term that literally means "to mask one's efforts." This can be as simple as camouflage in tactical settings to conducting complex simulations to misdirect, feints to mislead, disinformation campaigns, or technical deception during war or peace to misrepresent Russian capabilities or intentions. *Maskirovka* may be adopted to any level of operation, from the lowest tactical forms to the highest strategic levels, revealing its importance and adaptability in the Russian psyche.¹⁷ At the lowest level, one may simply camouflage the equipment and vehicles to better blend into the environment. At the operational level, a feint may be conducted to allow the Russian force to strike at a weak point. The 2014 annexation of Crimea has been described in the West as *maskirovka*, as has the subsequent war in the Donbass region of Ukraine. In both cases, conflict began when armed rebel forces without military insignias seized na-

¹⁵ Jiri Valenta, "Soviet Use of Surprise and Deception," *Survival* 24, no. 2 (1982): 50–61, <https://doi.org/10.1080/00396338208442019>.

¹⁶ Sally W. Stoecker, *Forging Stalin's Army: Marshal Tukhachevsky and the Politics of Military Innovation* (New York: Routledge, 1998).

¹⁷ T. C. Shea, "Post-Soviet *Maskirovka*, Cold War Nostalgia, and Peacetime Engagement," *Military Review* 82, no. 3 (2002): 63–67.

tional infrastructure. As a part of its response, Russia sent humanitarian convoys to Donbass. The first of the convoys consisted of military trucks painted white, which attracted global media attention, particularly when combined with Russia's denial that the forces were military.¹⁸ This created a situation that Major General Gordon B. Davis Jr., then in charge of operations and intelligence at NATO's Belgium headquarters, described as "a wonderful example of maskirovka."¹⁹ The frequent application of maskirovka tactics validates the belief that these techniques confer significant advantages. In Donbass, the media storm of reporters worked to discover the purpose of the convoy: Was it a Trojan horse operation? Would the trucks be allowed into Ukraine by border authorities? Ultimately, it served as an effective distraction for the Russian equipment and personnel that entered Ukraine at other border crossing points controlled by Russia.

As the past two decades of Arctic politics demonstrate, Russia has capitalized on governance ambiguity and has been reticent to share information regarding its Arctic strategic ambitions. According to Section 1071 of the John S. McCain National Defense Authorization Act for fiscal year 2019, each Arctic nation's government will release new Arctic strategy documents every two to three years to update its strategic plans, visions, and research capabilities. The Scandinavian states and Canada have adhered to this schedule, while Russia, as of 2020, had not released a public strategy document since 2008.²⁰ The implication is that Russia would rather communicate its Arctic military capabilities with action.

Forced-entry operations are often thought of as continental campaigns, although others suggest it may be more probable in the twenty-first century that they be conducted as part of joint maritime campaigns.²¹ Amphibious operations' suitability in the Arctic is self-evident given their dependence on maritime environments, a lack of preexisting military infrastructure, and political-geophysical uncertainties—all features the Arctic contains in spades. Russia's continued development of equipment, doctrine, and trained military personnel creates the capability for the Russians to conduct amphibious operations at improved and unimproved landing sites throughout the region. It also facilitates operations against oil rigs and other sea-based installations.

Military reconnaissance missions, under the guise of scientific and research endeavors, contribute valuable data essential to conducting future amphibious operations. The combined impact of increased capability and reach across the Arctic environment effectively heightens the potential impact of deception efforts. It is hard for other Arctic powers to anticipate the objectives or depths of Russia's military

¹⁸ Denial is considered another critical component of maskirovka.

¹⁹ Lucy Ash, "How Russia Outfoxes Its Enemies," BBC, 29 January 2015.

²⁰ "Basics of the State Policy of the Russian Federation in the Arctic for the Period until 2020 and for a Further Perspective," *Rossiyskaya Gazeta* (Moscow, Russia), 30 March 2009.

²¹ Col Clifford J. Weinstein, LtCol John C. Berry, and Capt Karl E. Fisher, "Amphibious Forces in a New Naval Era," *Marine Corps Gazette* 102, no. 2 (February 2018): 9–12.

capabilities, creating an “Arctic gap” that can be exploited.²² While it is known that Russia has invested in Arctic mission and military capabilities at a higher rate than other Arctic powers, research extrapolating what this could mean for interstate relationships remains fragmented, as is the case of speculations on the real Arctic capabilities of the Russian military.

CURRENT STAKES FOR THE ARCTIC STATES

Competition for profitable seabeds, historical connections, regional pride, national identities, and desire for control of strategic shipping routes come together as high-stakes issues that may destabilize interstate relationships in the Arctic. The future exploitation of natural resources in the Arctic is a potential driver of conflict. A 2008 U.S. Geological Survey report estimated that the area above the Arctic Circle could contain at least 13 percent of the world’s oil reserves and 30 percent of its natural gas.²³ The Arctic is seeing unparalleled growth. New oil and gas activity has resulted in billions of dollars of investments in the Arctic, with plans to bring more funds specifically to the Russian Arctic.²⁴ This increase of activity and investment results in increased complexity. To deal with this complexity, Arctic states, indigenous nations, and interested parties formed the Arctic Council in 1996, a value-based intergovernmental forum for stakeholders to address challenges across a variety of issue-areas, encompassing sustainable development, environmental protection, and monitoring and assessment.²⁵

Since its creation, the council’s ideals have become political expectations embodied in a series of three legally binding agreements and yearly nonbinding recommendations. Notably, the Arctic Council explicitly excludes military interests and activities in its discussions and issue purview.²⁶ While the council has been lauded as a normative organization that effectively governs a peripheral region, the reality is that the council heavily relies on voluntary compliance and contributions of member

²² *Report to Congress on Arctic Operations and the Northwest Passage* (Washington, DC: Department of Defense, 2011).

²³ Alexa Spence and Nick Pidgeon, “Framing and Communicating Climate Change: The Effects of Distance and Outcome Frame Manipulations,” *Global Environmental Change* 20, no. 4 (October 2010): 656–67, <https://doi.org/10.1016/j.gloenvcha.2010.07.002>.

²⁴ Adam Lajeunesse, “The Northwest Passage in Canadian Policy: An Approach for the 21st Century,” *International Journal* 63, no. 4 (2008): 1037–52, <https://doi.org/10.1177%2F002070200806300414>; and Levon Sevunts, “Russia Flexes Its Military Muscles with Arctic Component of Vostok 2018 War Games,” *Radio Canada International*, 14 September 2018.

²⁵ *Declaration on the Establishment of the Arctic Council: Joint Communiqué of the Governments of the Arctic Countries on the Establishment of the Arctic Council* (Ottawa, Canada: Arctic Council, 1996).

²⁶ Erkki Tuomioja, “Check Against Delivery” (statement, Arctic Council 5th Session, Salekhard, Russia, 26 October 2006); and *Report of Senior Arctic Officials to Ministers at the Fifth Arctic Council Meeting* (Salekhard, Russia: Arctic Council, 2006).

states.²⁷ This structure places what is considered an undue level of trust on Russia, especially as it “has shown a proclivity to exploit gray areas, where the rules and norms are less defined” and rules are less encoded.²⁸

Russia has used ambiguity to its advantage in conversations on northern militarization, though it is hardly the sole Arctic state to develop military infrastructure. Canada, Russia, and the United States have all engaged in Arctic militarization to varying degrees and even non-Arctic players, such as China and South Korea, are increasingly involved in Arctic military activity by producing icebreakers and seeking armed forces representation in Arctic governance forums.²⁹ NATO forces participate in joint exercises, Canada maintains its claim on the Northwest Passage, and Russia continues to develop permanent military infrastructure in the Far North. Concurrent bolstering activities of states threaten their polar peers, escalating the potential for future conflict. In an article intended for military leadership, Marine Corps Lieutenant Colonel Michael Zimmerman warns that current preferences for cooperation over conflict demonstrated by northern states is by no means an indicator or guarantee of future peace. Moscow needs only a triggering action to change its strategy calculus.³⁰

VOSTOK, 2018: RUSSIA'S AMPHIBIOUS ASPIRATIONS

Russia developed its Arctic fleet military tradition during more than a century of history. The Imperial Russian Navy's Arctic Ocean Flotilla (*Флотилия Северного Ледовитого океана*) was created to safeguard transportation routes in the Barents Sea. Its successor, the Russian Northern Fleet (*Северный флот*), was established in 1933, while World War II brought about the addition of airpower to the Northern Fleet. During the Soviet era, Russia had more than 200 Arctic-capable submarines ranging from diesel-electric to nuclear-powered classes located along northern Russia, the Barents Sea, and the Kara Sea. In 1963, the Northern Fleet submarines journeyed under the Arctic ice cap. Yet, it was not until 2018 that Russia conducted its first amphibious operations training in the Far North.

The relatively recent entrance of amphibious training in the Arctic can be explained by the innately complex and risky nature of amphibious operations. They require coordinated efforts between seaborne and land-based forces, and often require

²⁷ Gisele M. Arruda and Sebastian Krutkowski, “Arctic Governance, Indigenous Knowledge, Science, and Technology in Times of Climate Change,” *Journal of Enterprising Communities: People and Places in the Global Economy* 11, no. 4 (2017): 514–28.

²⁸ LtCol Michael Zimmerman, “High North and High Stakes: The Svalbard Archipelago Could Be the Epicenter of Rising Tension in the Arctic,” *PRISM* 7, no. 4 (2018): 106–23, <https://www.jstor.org/stable/26542710>.

²⁹ P. Whitney Lackenbauer et al., *China's Arctic Ambitions and What They Mean for Canada* (Calgary, Canada: University of Calgary Press, 2018).

³⁰ Zimmerman, “High North and High Stakes,” 112.

airpower support to be successful. As the quantity of land-based troops and equipment that can be landed in a combat environment at one time is limited, defending forces have an advantage. The complexity of the operation heightens the chances for coordination failures, which can compromise the effectiveness and safety of contributing forces. An Arctic amphibious operation is made even more complex with harsh weather conditions that challenge the landing force.

To address this challenge, Russia assigned the specialized mission of developing amphibious operations capabilities to the *200th Independent Motorized Rifle Brigade* (IMRB), *80th Arctic Motorized Rifle Brigade*, and the *61st Naval Infantry Brigade*.³¹ Creating a credible amphibious force requires Arctic-capable amphibious shipping, the technologies for which Russia has developed beyond that of the United States and its NATO allies. Establishing a specialized amphibious brigade fulfills two needs. First, it creates a force highly specialized and trained in conducting operations in a specific yet treacherous region.³² Second, it creates opportunities to test new equipment and doctrine that may be applied to other military units.

From 11–17 September 2018, as part of the Vostok 2018 maneuvers, Russian Marine units, the *80th Arctic Motorized Rifle Brigade*, and the *200th IMRB* conducted a tactical amphibious assault exercise on the coast of the Chukchi Sea near Vankarem, Russia. To get to Chukotka, the Russian warships had to sail more than 4,000 nautical miles across the Northern Sea Route from their base in the Kola Peninsula (figure 71). During amphibious operations, it is imperative to minimize the chance of a protracted landing to lessen the risk to the assault force. The Vostok war games showcased updated BTR-82A armored personnel carriers, which aided in landing on the unprepared Chukchi coast (figure 72).³³

The exercise was the first Arctic amphibious training in modern history and the seventh such annual Arctic exercise of Russia's Northern Fleet since 2012.³⁴ The mock amphibious assault was followed by search-and-destroy exercises the next day. The Vostok 2018 war games also involved elite airborne troops and long-range and military transport of its Aerospace Forces (or VKS, *Vozdushno-kosmicheskiye sily*). Since the war games, Russia has held amphibious operation drills in Alakurtti in February and March 2019. These large-scale exercises further demonstrate Russia's multifaceted Arctic policy. While Russia engages in efforts to preserve organizational ties and cooperation with its Western neighbors, it does so alongside an unwavering commitment to building its own strength.³⁵

³¹ Sevunts, "Russia Flexes Its Military Muscles with Arctic Component of Vostok 2018 War Games."

³² Zimmerman, "High North and High Stakes," 112.

³³ "Maneuvers Vostok-2018," Ministry of Defence of the Russian Federation, accessed 29 April 2020.

³⁴ "Arctic Grouping of Northern Fleet Land Amphibious Assault in Chukotka," Ministry of Defence of the Russian Federation, 9 November 2018.

³⁵ Pavel K. Baev, "Russia's Ambivalent Status-Quo/Revisionist Policies in the Arctic," *Arctic Review on Law and Politics* 9, no. 4 (2018): 408, <https://doi.org/10.23865/arctic.v9.i336>.

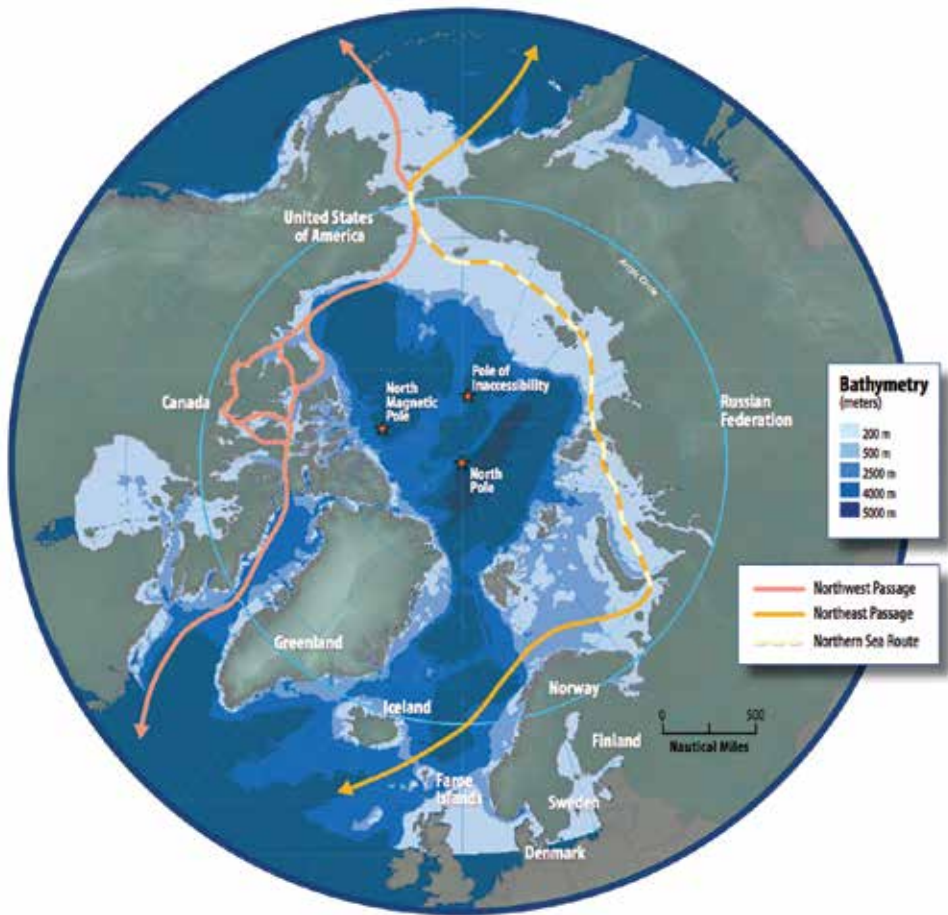


FIGURE 71
 Map of the Arctic region showing the Northeast Passage, Northern Sea Route,
 and Northwest Passage shipping routes.
Arctic Council, adapted by MCUIP

RESPONDING TO VOSTOK: WESTERN AMPHIBIOUS AWARENESS

Russia's series of exercises designed to test and showcase its ability to mount large-scale operations have resulted in critical responses from its Arctic peers. Less than a year before Russia's 2018 war games, the U.S. Marine Corps shut down its amphibious assault vehicle upgrade program in an effort to "turn[s] [the] focus to the future." The Russian amphibious war games prompted skepticism of the Corps' decision to end survivability upgrades to its more than 40-year-old fleet of assault vehicles.³⁶

³⁶ Jen Judson, "US Marine Corps Kills Amphibious Assault Vehicle Upgrade Program," *Defense News*, 23 September 2018.



FIGURE 72
Airborne Platoon, 2018.
Ministry of Defence of the Russian Federation

U.S. amphibious assault forces have not been the most capable part of its post-Cold War Navy. Since 11 September 2001 (9/11), the focus on Middle East engagements has resulted in the amphibious assault fleet becoming an afterthought.³⁷ Today, U.S. military leadership is vocal about the need for maritime Services to return to their “amphibious roots,” especially as Russia has openly demonstrated its amphibious capabilities. The concern of a potential capabilities gap in amphibious operations, furthered by growing uncertainty regarding Russian Arctic intentions, led Western Arctic states to come together in November 2018 in Exercise Trident Juncture, the largest NATO exercise since the Cold War.³⁸ More than 50,000 troops from 16 NATO countries, as well as Sweden and Finland, conducted naval exercises throughout the Norwegian and Baltic Seas. When asked why NATO was conducting naval operations in the Arctic in November, Admiral James G. Foggo III, who oversaw Trident

³⁷ Capt George Galdorisi and Scott Truver, “The U.S. Navy’s Amphibious Assault Renaissance: It’s More than Ships and Aircraft,” *War on the Rocks* (blog), 12 December 2018.

³⁸ Christopher Woody, “NATO Is Hosting Its Biggest War Games since the Cold War Amid Rising Tensions with Russia—but the Alliance Is Training to Deal with a Much Older Foe,” *Business Insider*, 5 November 2018.

Juncture, responded, “It’s cold? That’s exactly why. We’re toughening everyone up.”³⁹ Exercise Trident Juncture was completed within two months of Russia’s initial Vostok 2018 amphibious demonstration. When asked about the close timeline, NATO coordinators cryptically noted that the *National Security Strategy* of the United States makes clear that deterring conflict is an endeavor best taken from a position of strength.⁴⁰

The northern-oriented military operations did not stop with Trident Juncture. In June 2019, Russia began a season of military exercises called Tsentr-2019, so named because of its intention to test the combat readiness of the military command and troops in the central military district in Russia. Despite this central focus, the exercises are also designed to test the country’s military capabilities in the Arctic. Russia is not acting alone in these exercises either—it invited forces from China, India, Pakistan, Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan to take part in the drills. The inclusion of China is particularly notable, as the country has sought to expand its Arctic presence and capabilities since it was accepted as an observer into the Arctic Council in 2013. Tsentr-2019 does not match the scale of 2018’s Vostok, but the operational focus appears to be more on mobilization and dislocation capabilities of military units than previous years. While Tsentr-2019 does not include the same amphibious training as Vostok 2018, it does build on the prior year’s amphibious operations training and infrastructure, and has already led to statements from Moscow military officials on the urgent need to expand and update existing northern port infrastructure to match current military capabilities.⁴¹ This expansion would be in addition to the 500 new military facilities built above the Arctic circle since 2014.

LOOKING TO THE FUTURE: AN ARCTIC AMPHIBIOUS THEATER?

While Russia has increased its amphibious operations training in the Arctic, the question remains whether more Arctic amphibious operations are likely in the future. It is one thing to say that an amphibious assault could be conducted, and quite another to say that an amphibious assault is likely to happen. While the answer to that question is not entirely certain, melting ice and the resulting opening of northern routes suggests that contingency planning for amphibious operations in the region is prudent. Various Arctic scholars have responded differently to this speculation. Some hypothesize that opening waterways could create vulnerabilities for Arctic states with accessible

³⁹ Jimmy Croona and Jesper Sundström, “Trident Juncture 2018: Interview with Admiral Foggo in Os, Norway,” Defense Visual Information Distribution Service, 27 October 2018.

⁴⁰ Jens Stoltenberg and Gen Curtis Scaparrotti, “NATO Secretary Jens Stoltenberg and Supreme Allied Commander Europe, General Curtis Scaparrotti on board the USS Harry S. Truman” (press conference brief, USS *Harry S. Truman* [CVN 75], 12 October 12, 2018).

⁴¹ Jamie Seidel, “Russia Announced Large-scale Arctic War-games in 2019,” News Corp Australia Network, 21 December 2018.

coastlines—though *who* exploits these vulnerabilities is left unanswered.⁴² Others are highly critical that any state would engage in amphibious assaults. While Russia may have the capabilities and be governed largely by self-interest, these scholars maintain that the balancing power of liberal states, combined with constraints from regional organizations, make it implausible that amphibious operations will occur.⁴³

The Arctic truly is a region of uncertainty due to its makeup and natural features. In the face of ambiguity, one must acknowledge what is known: Russia's emphasis on the North has never waned. The Arctic region is so intertwined with Russian national sentiment and identity that any attempt or misguided action that challenges Russian *belonginess* in the North will be challenged decisively. Russia has the second longest Arctic coast (after Canada), while the United States has the farthest removed capital from the Arctic Circle. Many American bureaucrats and political leaders do not consider the Arctic part of America's fundamental identity the way Russians do. For the United States, self-interest and resource independence could be seen as justification for returning to the North after departing at the end of the Cold War. As American leaders turn their eyes again to the North, they find Russia's gaze has never left.

As waterways in the Arctic continue to open, Russia and the United States undoubtedly will take advantage of these new frontiers. This increases the likelihood of a militarized Arctic environment, as each country strives to protect its interests and institutions. Common concerns, however, regarding environmental detraction and its global impact create common regional interests spanning liberal/illiberal political affiliations.⁴⁴ While Arctic activity is considered largely stable and isolated from East-West tensions, dangers remain for the Barents region to serve as a gateway for broader conflicts and resource competition.⁴⁵ It is thus apparent that organizations and existing behavioral norms are not a failsafe against mounting tensions. Realists and policy makers have largely been critical of the ability of normative standards and their nonbinding enforcement organizations to actually change or restrain state behavior in the face of self-interests. Moreover, illiberal states have few incentives to not pursue their own self-interests, threatening the survival of norms.

Ultimately, amphibious assaults are not expected to be conducted against Arctic states anytime in the near future. Non-Russian Arctic states either have extremely inhospitable coasts or are heavily militarized. For Russia, there is simply no incentive to invade a developed Western country at this time. However, symbolic amphibious training exercises *are* likely to continue as demonstrations of national strength and

⁴² Michael Byers, *Who Owns the Arctic?: Understanding Sovereignty Disputes in the North* (Vancouver, Canada: Douglas and McIntyre, 2014).

⁴³ Lajeunesse, "The Northwest Passage in Canadian Policy."

⁴⁴ Thomas Blom Hansen and Finn Stepputat, "Sovereignty Revisited," *Annual Review of Anthropology* 35, no. 1 (2006): 295–315, <https://doi.org/10.1146/annurev.anthro.35.081705.123317>.

⁴⁵ Lassi Heininen and Chris Southcott, eds., *Globalization and the Circumpolar North* (Fairbanks: University of Alaska Press, 2010); and Kamrul Hossain and Dorothée Cambou, eds., *Society, Environment and Human Security in the Arctic Barents Region* (New York: Routledge, 2018).

capability, particularly when directed at specific targets or with specific agendas in mind. A good example is the Norwegian archipelago of Svalbard and Russia's amphibious exercise. Svalbard is a Norwegian unincorporated archipelago located between continental Norway and the North Pole. Though a Norwegian territory, the archipelago played a significant role as a base for Russian hunters and whalers throughout the nineteenth and twentieth centuries. Treaties delineating the archipelago and its surrounding waterways as either Norwegian or Russian have been updated as recently as 2010. To this day, members of the Russian government and military—particularly those involved with Arctic delimitation and governance organizations—express dissatisfaction with the delineation of the territory and maintain that Svalbard should be under the control of Russia, given its historical tradition, geopolitical significance, and long-held Russian presence in Barentsburg (the second-largest settlement in Svalbard, consisting almost entirely of Russians).⁴⁶

Russia's amphibious operations goals can be summarized in three categories. First, Russia desires to demonstrate its power and capabilities *specific* to the Arctic region. As the most aggressive state in the Arctic, it engages in unprecedented amphibious operations to send a message to others about its northern advantage. Second, Russia seeks to send a message to Scandinavian countries. While Sweden and Finland are perhaps being warned not to abandon their traditional neutrality, the message to Norway is territorial.⁴⁷ The early 2019 amphibious training repeated by Russia was conducted close to Svalbard in the Barents Sea. Third, the Arctic amphibious operations showcase tactics that would be effective in an assault on the Baltic states, which would complicate any NATO response. Sending a message of intimidation to the Baltic states regarding their vulnerability on land *and* sea is likely given their vulnerability to amphibious assaults and the similar geophysical profiles of the shores bordering the Baltic Sea and the Chukotka shores considered rocky and lining waters prone to shifting winter weather conditions.

CONCLUSION

Russia focuses on four main categories of Arctic interests in its declarations, Arctic Council discussions, and behaviors: nuclear/strategic interests, geopolitical interests, economic interests (including energy), and symbolic interests (illustrated through the 2007 flag-planting on the North Pole seabed). By their nature, some of these goals seek to preserve the current Arctic status quo, which is a community of environmental and economic cooperation. At the same time, other goals—such as strategic, geopolitical, and symbolic—support revisionist politics that would widen the Arctic gap between Russia and its neighbors. The past decade has seen the number of goals

⁴⁶ Julia Gerlach and Nadir Kinossian, "Cultural Landscape of the Arctic: 'Recycling' of Soviet Imagery in the Russian Settlement of Barentsburg, Svalbard (Norway)," *Polar Geography* 39, no. 1 (2016): 1–19, <https://doi.org/10.1080/1088937X.2016.1151959>; and Andreas Østhagen, "How Norway and Russia Avoid Conflict over Svalbard," *Arctic Institute*, 19 June 2018.

⁴⁷ Zysk, "Maritime Security and International Order at Sea in the Arctic Ocean."

requiring revisionist policies outnumber those of status quo goals, and gained support and prominence in Russia's domestic political discussions.

Maintaining an Arctic presence can be seen as an existential requirement for Russia. Developing the region for industry and military access is necessary for the future of Russian oil and gas industries, which are also required to maintain the Russian state as it exists today.⁴⁸ Moreover, the Arctic is a region where practicing deception is not only possible, it is very difficult to detect due to the inherent limitations of communicative and data transfer technology associated with operating at high latitudes and in extreme weather conditions. As one travels north of 70–75 degrees, satellite communications systems normally in use become very unstable. Internet networks taken for granted elsewhere in the world are unavailable in areas that are not well served by satellites or land-based providers.⁴⁹ Finally, radio signals' range and function suffer in the Arctic, where researchers have found large holes in their coverage of the Arctic. Radio connection can be lost for long periods, to the severe detriment of defense monitoring and assessment programs that rely on communication and information technologies to report on the activities of other state militaries. The Arctic Council was established to create a common body of scientific knowledge for northern states while establishing a common set of rules for state behavior and Arctic engagement. After more than two decades, there remains great ambiguity in issue areas. These ambiguities are likely to grow as new spaces become accessible and innovative capabilities possible in areas previously closed. Russia's existing military aptitude, combined with its maskirovka psyche and self-ascribed Arctic identity, imply not only that it is willing to engage in whatever amphibious operations it deems necessary to prove itself as an Arctic leader, but also that it would do so competently.

Because of its status as a bellwether region, it is unknown how further climate changes will affect the Arctic, as global trends manifest here first. The emergent Russian amphibious operations capability could be the beginning of a trend, as Russians express their national character in this theater. Other Arctic actors and organizations are in catch-up mode, striving to determine whether the Russian capability is real or an element of its maskirovka effort. While 2018 saw Russia's first amphibious operations training in the Far North, it is certain that it will not be the last.

⁴⁸ Lajeunesse, "The Northwest Passage in Canadian Policy."

⁴⁹ Amitav Acharya, "How Ideas Spread: Whose Norms Matter? Norm Localization and Institutional Change in Asian Regionalism," *International Affairs the Department of International Relations International Organization* 58, no. 2 (2018): 239–75, <https://doi.org/10.1017/S0020818304582024>.

CHAPTER TWENTY-ONE

Naval Strategy and the Future of Amphibious Operations

B.A. Friedman

Far too often, amphibious operations are conflated with just one type: the amphibious assault. The assault is considered the most challenging type of military operation, not just among amphibious or naval operations, and successful ones have the potential for history-changing implications. At two major points in history, major societal outcomes hinged on successful amphibious assaults in the Normandy region of France in particular; one launched from Normandy in 1066 and one launched toward it in 1944.¹

As often as amphibious assaults change history they are just as frequently declared obsolete. This is usually the result of new technology increasing the difficulty of an already challenging prospect. It is certainly true today as the proliferation of precision-guided munitions—especially antiship missiles—means that concentrating amphibious ships and the other surface vessels required to protect them is hazardous. While declaring the amphibious assault obsolete would be folly, we can safely assume that they are now exceedingly difficult and beyond the capabilities of all but a few specialized amphibious forces. Amphibious operations herein are defined as *the projection of combat power ashore from the sea*, be it via aircraft, surface connectors, or undersea platforms.

¹ For the Norman invasion of England in 1066, see Marc Morris, *The Norman Conquest: The Battle of Hastings and the Fall of Anglo-Saxon England* (New York: Pegasus Books, 2014). For the Allied invasion of Normandy in 1944, see Antony Beevor, *D-Day: The Battle for Normandy* (New York: Penguin Books, 2010).

For that reason, amphibious assaults—just one specific kind of amphibious operation—will be rare in the near future, especially at large scale. As such, other forms of amphibious operations will become more common. To understand what those amphibious operations will look like, this chapter will examine amphibious operations first through the lens of naval strategy and second through history. This leads to a conclusion that, given the constraints on amphibious assaults, amphibious raids will become more common.

In 2019, Commandant of the Marine Corps General David H. Berger released his *Commandant's Planning Guidance* calling for “significant change . . . to ensure we are aligned with the 2018 *National Defense Strategy* (NDS) and [*Defense Planning Guidance*] DPG, and further, prepared to meet the demands of the Naval Fleet in executing current and emerging operational naval concepts.”² He explicitly recognized that a Marine Corps optimized for amphibious assaults would not be able to meet those new requirements. This is not, however, as drastic a change as it may seem. A Marine Corps able to conduct amphibious raids, not unprecedented in its history, would be better able to support emerging naval concepts and future naval operations.

AMPHIBIOUS OPERATIONS AND NAVAL STRATEGY

Naval scholars typically identify two types of naval strategy: the *guerre d'escadre* and the *guerre de course*, or “fleet battle or commerce raiding.”³ A third type, *guerre de razzia*, or naval irregular missions and maritime raiding ashore, has also been proposed based on the exploits of Captain John Paul Jones during the American War for Independence.⁴ Although there are frequent overlaps between them, these three categories create a loose taxonomy of naval battle, naval control, and naval raiding.

The purpose of amphibious operations is to support naval campaigns. Any concept of amphibious operations, therefore, should flow from a concept of naval operations such as the three identified. Once again, no single form of amphibious operation will be exclusive to any one form of naval strategy, but there will be tendencies toward certain types of amphibious operation. The first type, *guerre d'escadre*, corresponds to the large-scale amphibious assaults that are the most well-known, if not the most common, form of amphibious operation. They are typified by the massive amphibious assaults of World War II, but include much smaller operations that have occurred throughout history. This reflects the *guerre d'escadre* focus on force-on-force engagements.

² Gen David H. Berger, *Commandant's Planning Guidance: 38th Commandant of the Marine Corps* (Washington, DC: Headquarters Marine Corps, 2019), 1.

³ Benjamin Armstrong, *Small Boats and Daring Men: Maritime Raiding, Irregular Warfare, and the Early American Navy* (Norman: University of Oklahoma Press, 2019), 197.

⁴ First proposed by John Paul Jones in words and deeds, then by James C. Bradford, “John Paul Jones and *Guerre de Razzia*,” *Northern Mariner* 13, no. 4 (October 2003): 1–15.

The second type, *guerre de course*, corresponds to the use of amphibious force to conduct commerce ship boarding operations, to seize or control ports wherein such shipping put ashore, or to seize and hold key maritime terrain through which commercial shipping must pass, such as straits, rivers, and canals. This used to be a very common mission set for amphibious forces. Many operations of the French and Indian War, for example, turned on the control of riverine chokepoints.⁵ Rather than a focus on force-on-force engagements, *guerre de course* relies on control of key maritime terrain and sea lines of communication.

The third type, *guerre de razzia*, corresponds to amphibious raiding, reconnaissance, and reduction of adversary forces ashore (e.g., forts) without the intention of long-term invasion. Once again, these operations were extremely common prior to the twentieth century. *Guerre de razzia* literally translates to “war of raiding” and, in early American history, was characterized by attacks on undefended coastlines and colonial holdings.⁶ For example, in the 1775 Continental Navy and Continental Marine Corps raid on Nassau in the Bahamas, the American force did not intend to hold the objective. But by temporarily seizing it, they gained supplies courtesy of the British. *Guerre de razzia* focuses on attacking enemy weak points, forcing them to shift resources to defend them, and thereby depriving the enemy of supplies.⁷

This is not to say that amphibious tactics are not fluid between the three; ship-to-ship operations that were vital to *guerre de course* strategies in the age of sail (and still occur today) were, for centuries, a mainstay of *guerre d’escadre* strategies, as the most reliable way to take an opponent’s ship out of action was to board it. As we shall see, it is more likely that amphibious forces in the future will be used to support the latter two naval strategies—*guerre de course* and *guerre de razzia*—than the first. However, most amphibious forces, including the U.S. Marine Corps, are staffed, trained, and equipped solely for the first.

MODERN AMPHIBIOUS OPERATIONS

It is important to understand the general forms of naval strategy above to ascertain what modern and near-future amphibious operations will look like. Naval warfare is currently dominated by the missile. The range and precision of naval weapons, whether delivered by ships, by aircraft, or shore-based launchers, is unprecedented. According to the late naval strategist Captain Wayne P. Hughes Jr., “Navies are in a new tactical era characterized by missile warfare. Cruise, theater ballistic, defensive,

⁵ See Fred Anderson, *Crucible of War: The Seven Years’ War and the Fate of Empire in British North America, 1754–1766* (New York: Vintage Books, 2001), especially battles to control Fort Ticonderoga, NY, in 1758 and 1759, as well as the 1758 siege of Louisbourg, Nova Scotia.

⁶ Armstrong, *Small Boats and Daring Men*, 5.

⁷ Armstrong, *Small Boats and Daring Men*, 17.

and air-to-air missiles comprise an assortment that is large and growing larger.⁸ The pervasive nature of modern intelligence, surveillance, and reconnaissance (ISR) platforms, underpinned by unmanned, autonomous, electromagnetic sensing, and space-based capabilities and high-speed information processing enabled by modern digital communications only magnifies the threat of precision-guided munitions. Any large concentration of naval power is now exceedingly dangerous, although not impossible.

While these developments will surely have their effects on amphibious operations, they are far from obsolete. Based on U.S. doctrine, there are five types of amphibious operation: assaults, raids, withdrawals, demonstrations, and amphibious support to crisis response and other operations. Amphibious assaults are intended to seize and permanently hold an objective. An amphibious raid is similar to an assault, but is only intended to temporarily seize control of an objective. An amphibious withdrawal is the exfiltration of shore-based troops via the sea to use them elsewhere. An amphibious demonstration is the stationing of troops on shore to force the enemy to defend against a potential assault, even though an actual assault may never be intended. Amphibious support to crisis response and other operations takes many forms, and is intended to support naval, air, or land forces from the sea.⁹

Most observers only think about the amphibious assault, an understandable if deleterious effect of the dramatic, war-winning amphibious assaults in both theaters of World War II. These large-scale assaults occurred before precision-guided munitions were widely available and, in the case of the European theater, the assaulting force enjoyed nearly total command of the sea.¹⁰

While amphibious assaults are and will remain the most difficult and demanding form of amphibious operation, it is clear that they will not be the most likely. The first reason is geopolitical; it is doubtful that any of the three largest powers—the People’s Republic of China, the Russian Federation, and the United States—could generate, transport, and sustain enough combat power to invade one of the other two without years or decades of investment. While the U.S. military remains almost in a class by itself in terms of effectiveness, the Department of Defense lacks the large-scale naval logistics capabilities that enabled the types of operations that characterized World War II. The U.S. Merchant Marine has atrophied down to the bone and neither the Navy nor the Army possess the sealift tonnage to supply long-term expeditionary operations at large scale.¹¹

The second reason is tactical. The proliferation of precision-guided munitions enabled by digital command and control, satellite surveillance, and other advanced

⁸ Capt Wayne P. Hughes Jr., USN (Ret), *Fleet Tactics and Coastal Combat*, 2d ed. (Annapolis, MD: Naval Institute Press, 2000), 149.

⁹ *Amphibious Operations*, Joint Publication (JP) 3-02 (Washington, DC: Joint Chiefs of Staff, 2019), I-3, I-4.

¹⁰ When most people hear the term *amphibious operations*, they immediately think of Operation Overlord, the Allied invasion of Nazi-controlled Normandy in 1945, cited above. The unique geopolitical situation of 1944 that necessitated the opposed amphibious invasion of a continent is unlikely.

¹¹ David B. Larter, “The Sealift Gap Is Getting Worse: The Drift, Vol. XXI,” *Defense News*, 14 March 2019.

ISR technologies preclude the massing of combat power off shore that is a necessary component of continental invasion amphibious assaults. These trends will push both naval and amphibious forces to privilege speed and dispersion over concentration. It will also require maritime forces to eliminate shore-based threats to enable naval operations, especially in restricted littoral waters. Amphibious operations, to include smaller-scale assaults, are still eminently viable in such environments. This means that amphibious assaults will not be as common or as important as they have been in the past, but the other forms of amphibious operation will regain importance to fill the vacuum.

THE RETURN OF THE RAID

While the amphibious assault will lose some viability and value, another form of amphibious operation will gain both. That form will be the amphibious raid; the tool of choice for naval *guerre de razzia* strategies.

As precision-guided munitions become more of a threat to naval forces, amphibious forces will need to successfully execute amphibious raids to reduce and mitigate shore-based threats. Expensive and limited aviation and friendly missile systems will not always be the ideal tool to reduce shore-based threats. Amphibious raid forces will need to transit ashore, temporarily establish control and neutralize threats, and then exfiltrate back to sea-based platforms. This capability will be especially critical where air defense networks and antiship missiles are integrated and networked. Such systems are designed to keep large capital ships and aircraft at bay. They are not designed to defend against rapid, numerous, small-scale surface assaults.

In U.S. doctrine, an *amphibious raid* is defined as “the swift incursion into, or temporary occupation of, an objective followed by a planned withdrawal.”¹² Amphibious raids are used to “secure information, confuse an adversary or enemy, capture personnel or equipment, or destroy a capability.”¹³ As they are temporary in nature, they do not require the type of build-up and concentration of forces—at sea and on shore—as amphibious assaults. This makes amphibious raids useful across the range of military operations, but especially against shore-based antiaccess capabilities designed to forestall large-scale naval operations.

Amphibious raids are also relevant should a traditional amphibious assault become necessary. In fact, modern and future amphibious assaults will have to adopt raid-like tactics. To establish a long-term lodgment ashore in the face of adversary antiship and antiair platforms, amphibious forces will have to transit from ship to shore in smaller units, on faster platforms, and disperse rather than concentrate on a single entry point. The concepts, training, and platforms necessary for amphibious raids, therefore, will be identical to those required for an amphibious assault, with the only difference being that amphibious forces will go ashore to stay and will usually

¹² *Amphibious Operations*, I-3.

¹³ *Amphibious Operations*, I-3.

be preceded by smaller scale surface strikes to dismantle antiaccess/area-denial (A2/AD) networks prior to landing. This action is not unprecedented; for example, carrier raids were instrumental in the dismantling of Imperial Japanese defenses in the Central Pacific during World War II.¹⁴

Historically, *guerre de razzia* strategies were more about harassment and opportunistic attrition of opposing forces than the accomplishment of operational goals. However, the proliferation of advanced shore-based threats has imbued such strategies with new relevance. Naval forces, no matter the strategy, must now be cognizant of shore-based threats, including precision-guided munitions (e.g., China's Dong Feng-21 antiship missiles) and small, missile armed boats such as those employed by Iran in the Persian Gulf. Amphibious raids can neutralize these threats before they are a danger, clearing the way for naval task forces to maneuver.

GUERRE DE RAZZIA IN HISTORY

While the term is far more recent, *guerre de razzia* strategies are ancient. The Athenians under the brilliant general Demosthenes ravaged Peloponnesian coastlines during the Peloponnesian War (431-404 BCE), leading to a massive victory over the Spartans at Sphacteria, Greece, which, for a time, secured Attica from Spartan invasion.¹⁵ Demosthenes specifically adapted raiding tactics to naval warfare.¹⁶

The practitioners of *guerre de razzia par excellence* were the Vikings. The Vikings were independent groups of Norwegian, Danish, and Swedish peoples who began raiding other European regions around the year 800 ACE.¹⁷ Viking *guerre de razzia* extracted wealth in the form of loot and indemnities and induced European rulers to cut deals rather than attempt to fight the raiders directly. By the late ninth century and into the tenth century, they even attacked Constantinople numerous times.¹⁸ Viking raids continued for decades, and their colonies in England and other places persisted until the Norman invasion of 1066, an amphibious assault.¹⁹

The Vikings used small, maneuverable ships with crews of 40-80 people to ravage and raid the coastlines of northern Europe for decades, operating as single ships working independently or at times combining forces with other ships to overcome larger threats.²⁰ Their ships, designed for northern European fjords, were also perfect for amphibious operations as they could be easily beached and relaunched.²¹ They

¹⁴ Trent Hone, *Learning War: The Evolution of Fighting Doctrine in the U.S. Navy, 1898-1945* (Annapolis, MD: Naval Institute Press, 2018), 266-67.

¹⁵ See especially Thucydides, *History of the Peloponnesian War*, trans. Richard Crawley (London: Longmans, Green, 1874), 4.28-4.43.

¹⁶ Thucydides, *History of the Peloponnesian War*, 4.42.

¹⁷ Robert Ferguson, *The Vikings: A History* (New York: Penguin, 2009), 64-65.

¹⁸ Ferguson, *The Vikings*, 115-26.

¹⁹ Ferguson, *The Vikings*, 362.

²⁰ Else Roesdahl, *The Vikings*, 2d ed., trans. Susan M. Margeson and Kirsten Williams (New York: Penguin, 1998), 84-87.

²¹ Ferguson, *The Vikings*, 59-61.

also took their speed and maneuverability on shore, using horses for rapid transport and movement, although they rarely fought on horseback.²² Also adept at sea, they employed missile weapons against ships until they could board their opponents and overwhelm them hand-to-hand.²³

More recently, the Revolutionary War career of John Paul Jones is an example of *guerre de razzia* in action. In 1776, John Paul Jones, then a lieutenant aboard the *Alfred*, was present at the amphibious raid on Nassau, Bahamas, the first American offensive of the war and the first operation of the Continental Marines.²⁴ By 1778, Jones was the captain of his own ship, the *Ranger*, off the coast of Scotland. Along with boarding British vessels for prize money and information and fighting a successful battle with a Royal Navy sloop, Jones's sailors and Marines executed an amphibious raid against Whitehaven, destroying British ships in the harbor and assaulting its fort. Although the raid did little damage in and of itself, it forced the British to commit more ships, troops, and other resources to guard their shores than they otherwise would. Maritime insurance rates skyrocketed, British troops were sent to guard the coast, and the panic among British civilians lasted for weeks. The morale effect of the raid was so great that "Pirate Paul Jones" remained a myth among coastal communities for a century.²⁵

IMPLICATIONS

How should modern amphibious forces organize and equip for *guerre de razzia*? First, a *guerre de razzia* strategy requires distributed maneuver: the ability for forces to operate in small units that can aggregate and disaggregate at will depending on the tactical situation. To do so at sea requires an amphibious force to employ small, fast boats and surface craft, able to embark small units, their organic weapons, and limited sustainment. Few of these can be found in the U.S. inventory, and fewer still are designed for the embarkation of Marines.

Second, once on shore, Marines will need mobility to strike fast, outpace defenders, and exfiltrate. The Vikings commandeered horses for mobility, because where they landed was not necessarily where they struck. Marines will need to do the same, using small off-road vehicles for movement, dismount to fight, then move again. In short, Marines conducting amphibious raids will need to move mounted, but fight dismounted to maintain mobility without being easily detectable. Modern vehicles such as the military-grade Polaris MRZR offer just that possibility.²⁶ Even light vehicles currently in the American arsenal, such as light armored vehicles (LAVs) and interim armored vehicles (Strykers) are still too heavy for this purpose.

²² Roesdahl, *The Vikings*, 144.

²³ Roesdahl, *The Vikings*, 144.

²⁴ Armstrong, *Small Boats and Daring Men*, 17.

²⁵ Armstrong, *Small Boats and Daring Men*, 33.

²⁶ Shawn Snow, "The Corps Just Slapped an Anti-drone System on an MRZR All-terrain Vehicle," *Marine Corps Times*, 19 September 2018.

Third, adopting the methods of *guerre de razzia* would not be a drastic cultural shift for the Marine Corps. In fact, the Corps' philosophy of maneuver warfare, designed to generate greater relative tempo through decentralized decision-making, initiative, and rapid maneuver is ideal for this form of warfare. The key to *guerre de razzia* strategies—from the Athenians to the Vikings to John Paul Jones—has been to strike where the enemy was unprepared to defend. Not only does maneuver warfare focus on striking “gaps” rather than “surfaces,” but decentralized decision-making and initiative are prerequisites for the rapid mobility and greater relative tempo that makes for a successful *guerre de razzia*.²⁷

Amphibious raids will need to be supported by close-in, sea-based fires. The U.S. Navy's distributed lethality concept that aims to increase the overall firepower of the fleet is a step in the right direction, but it should be augmented by small craft capable of delivering mortar or missile fire in littoral waters and ashore.²⁸ There are a number of available platforms that provide this capability through manned and unmanned options.

If a large-scale amphibious assault does occur, its success will depend on the that of an amphibious infiltration phase prior to the assault itself. Overpowering a coastal defense is more unlikely than it used to be, and the political acceptability of forcing the issue via repeated human waves in the style of Operation Overlord (Normandy, 1944) is even more unlikely. However, amphibious raids can reduce coastal defenses, creating gaps through which a larger effort can succeed. Amphibious raids, therefore, should be viewed as an important component of any maritime conflict, no matter the scale.

Finally, this is not to say that the Navy and Marine Corps should divest from the capability to conduct amphibious assaults. However, the Marine Corps—currently optimized for amphibious assaults—should diversify enough to be better able to conduct other forms of amphibious operations, especially amphibious raids. That type of Marine Corps would be a better fit for near future operations.

CONCLUSION

Large-scale amphibious invasions have become exceedingly difficult given the proliferation of precision-guided munitions and advanced ISR technology. Even successful prosecutions would be bloody and expensive. These trends will reduce the occurrence of amphibious assaults, but raise the importance of amphibious raids and other forms of amphibious operations.

Viewing amphibious operations through the lens of naval strategy, however, is a useful way to contextualize them, while keeping historical naval operations in mind yields insights for how future amphibious operations will most likely be prosecuted.

²⁷ *Warfighting*, MCDP 1 (Washington, DC: Headquarters Marine Corps, 1997), 92.

²⁸ VAdm Thomas Rowden, RAdm Peter Gumataotao, and RAdm Peter Fanta, USN, “Distributed Lethality,” U.S. Naval Institute *Proceedings* 141, no. 1 (January 2015): 18–23.

Recognizing that the purpose of an amphibious force is amphibious operations—not just amphibious assaults—is essential. Changing the Marine Corps from a force optimized for amphibious assaults to one designed for amphibious raids meets the Commandant's intent.

CHAPTER TWENTY-TWO

The United Kingdom's Approach to Amphibious Operations

From the Cold War to the Information Age

Kevin Rowlands

In the mid-1990s, the Royal Navy published a pamphlet for internal distribution entitled *The United Kingdom's Approach to Amphibious Operations*.¹ Its purpose was twofold: to provide an easily read, accessible piece of written guidance for practitioners, and to interpret existing international security policy and apply it to short-term equipment development decisions. It drew on national thinking about amphibious operations and attempted to bridge the gap between official doctrine, tactical fighting instructions, and historic experience. At the time, serving senior and middle-ranking naval and marine officers had lived through the remarkably successful Falklands conflict (1982), but in absolute terms they had also experienced a steady diminution of littoral capability. A new generation of amphibious shipping was under construction to replace decades-old platforms, but no decision had yet been made about the procurement of new aircraft carriers. As the authors of the pamphlet pointed out, historic data showed that the single most important factor in an amphibious operation was air superiority, but the ships necessary to achieve that superiority in the maritime environment were not guaranteed a place in any future national inventory.

The United Kingdom's (UK) amphibious approach then, as now, was typical of a medium-size maritime power. It was informed by alliance concepts and it influenced

¹ *The United Kingdom's Approach to Amphibious Operations* (Portsmouth, UK: Maritime Warfare Centre, Royal Navy, 1997).

them in return. It allowed for both sovereign and coalition operations, particularly with trusted close-cooperation partners, such as the United States and the Netherlands. This approach hinged on initiative, sequenced planning and execution, battlespace dominance, integrated support, and clear yet tailored command and control. Its primary role, loudly proclaimed, was to secure a beachhead on a potentially hostile shore to enable the conduct of subsequent operations.² The UK had enjoyed a long and eventful history of amphibious operations; but along with the rest of the world, it was entering a period of dramatic change in military focus that would lead to questions about the rationale for having amphibious forces at all.

To understand where the UK's amphibious capability was going in the period after the Cold War, it is first important to appreciate where it had been. A quintessential maritime power, England, then Great Britain, then the United Kingdom had forged an economically advantageous position in the world through its relationship with the sea.³ Its naval mastery led to a global empire and the Royal Navy assured and enforced order on and from the oceans of the world. However, sea power was not and never had been an end in itself. Speaking of the emergence of a British school of sea power thinking in the early twentieth century, historian Geoffrey Till noted that "the capacity to project power ashore (and of course the ability to prevent the enemy from doing the same) was the real payoff for the effort to secure or maintain command of the sea."⁴ It was acceptance of this simple seapower-to-shore-power logic that had long shaped the UK's approach to amphibious operations—a necessary means to a desired end.

Writing in 1990, before the publication of the pamphlet and the resurgence of interest in expeditionary power projection from the sea, Colonel Michael H. H. Evans provided a historical perspective on how British amphibious capability had developed. It was a maneuverist approach centered on a doctrine of generating rapid build-up of fighting power to overwhelm one or more objectives so that follow-on forces could then move in and defeat the enemy. From Gallipoli in the First World War, to Norway and Normandy in the Second World War, and on through Suez in 1956 and the Falklands in 1982, Evans reasoned that if past experience had necessitated such operations, then the uncertainty of the future in the post-Cold War world meant that the inherent flexibility of amphibious forces was more important than ever.⁵ Maintaining an amphibious capability was still seen to be a strategic if conventional deterrent, even though supporting a principally continental strategy through the

² *The United Kingdom's Approach to Amphibious Operations*, 15.

³ In 1707, the Act of Union joined England (and Wales) and Scotland to form Great Britain; the joining of the Kingdoms of Great Britain and Ireland in the 1801 Act of Union resulted in the United Kingdom. See "Act of Union 1707," Parliament.UK, accessed 9 July 2020.

⁴ Geoffrey Till, ed., *The Development of British Naval Thinking: Essays in Memory of Bryan Ranft* (London and New York: Routledge, 2006), 82.

⁵ Col M. H. H. Evans, RM, *Amphibious Operations: The Projection of Sea Power Ashore* (London: Brassey's, 1990).

North Atlantic Treaty Organization (NATO) when war in the European theater was expected to be concentrated and fought on the German plains and maritime force projection was little more than a peripheral issue (albeit the reinforcement of Norway in the event of a limited Soviet attack was important).⁶ It packed a hard punch and it could appear in the right place at short notice. An amphibious capability signaled Britain's willingness to take military action beyond its own borders. This was especially important given the paucity of similar specialist capabilities among European allies.⁷

That amphibious forces were endowed with inherent flexibility was a largely unchallenged assertion in British military and naval circles. Soldier and military theorist Sir Basil H. Liddell Hart wrote in the early 1960s that "amphibious flexibility is the greatest strategic asset that a sea-based power possesses," and few were moved to argue the point.⁸ However, even though it was generally accepted wisdom, the strategic asset did not always win vocal supporters when it came to investment decisions and prioritization. Culturally, it appeared that the Royal Navy, and perhaps the British people and their politicians, were more in thrall to high-tech submarines, aircraft carriers, and fast jets than they were to the slower, more agricultural-looking landing craft and helicopters designed to deliver Royal Marines to their objective on shore. Despite evidence of the necessity for amphibious capability to win in the Falklands, and through numerous other practical demonstrations through the late twentieth and early twenty-first centuries from Iraq to Sierra Leone to disaster relief missions in the Caribbean, the collective doubted that large-scale over-the-beach assault operations had a place in modern warfare.⁹ In 1988, American historians Norman Polmar and Peter B. Mersky went so far as to suggest that the relative increase in emphasis on amphibious warfare from the late 1960s and onward was not because of any great conviction for amphibious capability but due, at least in part, to the Royal Navy's "scaling down" of its carrier ambitions after the *CVA-01* debacle.¹⁰ In 2001, Ian Speller called amphibious forces the "Cinderella of the Services," given a low priority by a navy that culturally preferred to be in the business of sea control.¹¹ The idea that sea control had to serve a purpose seemed to have been overlooked, if not forgotten.

⁶ VAdm Sir Geoffrey Biggs, "The Utility of Amphibious Forces in Conventional Deterrence," *RUSI Journal* 138, no. 2 (1993): 41, <https://doi.org/10.1080/03071849308445696>.

⁷ Biggs, "The Utility of Amphibious Forces in Conventional Deterrence," 40–45.

⁸ B. H. Liddell Hart, *Deterrent or Defense: A Fresh Look at the West's Military Position* (New York: Praeger, 1960), 128.

⁹ Timothy J. Benbow, *British Uses of Aircraft Carriers and Amphibious Ships, 1945–2010*, Corbett Paper no. 9, vol. 9 (London: Corbett Centre for Maritime Policy Studies, King's College London, 2015).

¹⁰ Norman Polmar and Peter B. Mersky, *Amphibious Warfare: An Illustrated History* (London: Blandford Press, 1988), 162–63. The *CVA-01* was a large conventional class of fleet carriers planned to replace World War II-era platforms; the project was canceled in 1966 due to cost and the Royal Navy turned to smaller carriers for helicopters and short take-off and vertical landing aircraft.

¹¹ Ian Speller, "The Role of Amphibious Warfare in British Defence Policy, 1945–2000," in *Seapower at the Millennium*, ed. Geoffrey Till (Stroud, UK: Sutton Publishing, 2001), 85.

Perhaps almost half a century spent focusing on a single scenario of total war with the Soviet Union and losing sight of other contingencies, both against Soviets and elsewhere, constrained thinking. Useful though they were, amphibious forces were in effect an adjunct to the “real navy.”

Playing second fiddle led to a degree of institutional paranoia in the amphibious community and in the Royal Marines in particular. They were allegedly a sacrificial lamb (though not taken) in the defense review of 1981, when First Sea Lord Admiral Sir Henry Leach initially appeared willing to trade the Royal Marines in exchange for keeping the *Invincible*-class aircraft carriers, though this idea was quickly dropped.¹² Julian Thompson, a retired Royal Marines major general who commanded 3 Commando Brigade during the Falklands War, recounted an apocryphal story that supposedly appeared in *The Times* London newspaper sometime in July 1981. A disgruntled staff officer’s list of military terminology had made its way into the public domain and contained the following definition: “Amphibious: an out of date concept of operations, requiring no particular expertise which is temporarily undertaken by the Royal Marines.”¹³ Thompson, of course, further unpacked the quote and pointed out multiple errors, but the sense of injustice remained.

The UK’s relationship with amphibious operations had perhaps always been one of familiarity rather than passion. Despite stressing the importance of Commando forces and amphibious operations during a number of years, particularly for maritime power projection and theater entry, other parts of the Royal Navy grabbed the headlines.¹⁴ The 2018 *National Security Capability Review* (NSCR) and *Modernising Defence Programme* reports, for instance, omitted any mention of amphibious capabilities at all, focusing their (limited) maritime attention instead on the carrier strike.¹⁵ It was little surprise therefore that the House of Commons Defence Committee published a report shortly after the NSCR entitled *Sunset for the Royal Marines?: The Royal Marines and UK Amphibious Capability*. The report questioned rumors in Whitehall and in the media about reductions in Commando numbers and the potential disposal of amphibious shipping as part of an attempt to “modernize” the military and to bring defense spending in on budget. The committee concluded that British experience and expertise in amphibious operations must be sustained, that its relevance to modern

¹² Leach, however, makes no mention of this in his memoirs. Henry Leach, *Endure No Makeshifts: Some Naval Recollections* (London: Leo Cooper, 1993).

¹³ Julian Thompson, “Amphibious Operations: Projecting Power Ashore,” in *Dimensions of Sea Power: Strategic Choice in the Modern World*, ed. Eric Grove and Peter Hore (Hull, UK: University of Hull Press, 1998), 100.

¹⁴ Amphibious forces have a prominent, balanced position through three editions of official doctrine from the mid-1990s to the mid-2000s. See *British Maritime Doctrine*, BR 1806, 3d ed. (London: Her Majesty’s Stationery Office, 2004).

¹⁵ *National Security Capability Review* (London: Her Majesty’s Government, 2018); *Mobilising, Modernising and Transforming Defence: A Report on the Modernising Defence Programme* (London: Ministry of Defence, 2018); and *Sunset for the Royal Marines?: The Royal Marines and UK Amphibious Capability* (London: House of Commons Defence Committee, 2018).

warfare was clear, and that the assets were vital.¹⁶ It was also clear that the approach that had worked in 1944 and 1982, and which was encapsulated in the landmark pamphlet of 1997, might have to change.

Even 10 years after the fall of the Berlin Wall, the UK's approach to amphibious operations was still dominated by the Normandy model, but the specialist force required to deliver it was increasingly unaffordable.¹⁷ By the end of the Cold War, the Royal Marines focused on brigade-level operations, capable of mounting simultaneous assaults by at least four company groups. These company groups would be transported to their operating areas by specialist amphibious shipping: a landing platform, dock (LPD), that would also provide command and control facilities; a landing platform, helicopter (LPH), for aviation lift; and auxiliary landing ship, docks (LSDs), that would carry the bulk of equipment and ammunition and would provide logistic support. If necessary, other ships could be acquired from trade to provide mass, and an innovative government/commercial arrangement resulted in the purchase of *Point*-class roll-on/roll-off strategic lift ships. This amphibious shipping would have to be protected by frigates and destroyers, and potentially be preceded by an advance force and a prelanding force to conduct reconnaissance, to clear the entry route of mines or other defenses, and to help shape the battlespace.

Naval fires would be required to support the assault and, since by definition an amphibious operation would take place at the environmental seams, close cooperation and mutual understanding between maritime, land, and air components would be essential.¹⁸ Command and control therefore becomes complex and vested in a naval amphibious task force commander and a marine landing force commander who work side by side in a supported/supporting relationship. One or the other would take the lead according to the phase or stage of the operation. Geoffrey Till characterizes the requirements for such amphibious operations as maritime superiority, specialist skills and training, joint operations free from inter-Service friction, surprise and maneuver, and a compensatory military-technological advantage, since defenders of a shore have a natural advantage.¹⁹

By the mid- to late-2000s, the geostrategic landscape looked different. The Royal Marines, who had been the missiles in the amphibious silo, had found gainful employment elsewhere. They had seen action in the former Yugoslavia, and of course, in Iraq and Afghanistan. A generation of sea soldiers grew up rarely or never having sailed in a warship. In a 2010 speech, U.S. Secretary of Defense Robert M. Gates urged U.S. Marines to return to their maritime roots, declaring that America did not need

¹⁶ *Sunset for the Royal Marines?*, 44–45.

¹⁷ Speller, "The Role of Amphibious Warfare in British Defence Policy, 1945–2000," 85, 92.

¹⁸ *The United Kingdom's Approach to Amphibious Operations*, 50–99.

¹⁹ Geoffrey Till, *Seapower: A Guide for the Twenty-first Century*, 3d ed. (Abingdon, UK: Routledge, 2013), 190–96.

a second land army.²⁰ The sentiment had equal applicability to British Royal Marines. Meanwhile, though proud of the contribution of the marines to land wars, the Royal Navy's main policy effort was to secure the procurement of the new *Queen Elizabeth*-class aircraft carriers. To afford the carriers, compensating reductions had to be made to hull numbers in other parts of the fleet. Amphibious shipping survived and two *Albion*-class LPDs and four *Bay*-class LSDs entered service alongside the landing platform, helicopter (LPH), HMS *Ocean* (L 12), but a return to traditional amphibious operations looked unlikely. The 2006 *Naval Strategic Plan* maintained the four-company group assault ambition, two by air and two by surface; but after the 2010 *Strategic Defence and Security Review* went out, one of the LSDs was sold to Australia and another found a new role as a mine countermeasures support ship in the Persian Gulf. Ambition and reality did not always march in step.²¹

By the end of 2019, with two 60,000-ton aircraft carriers in the water and long years of desert campaigns receding into memory, British defense is undergoing another transformation. For amphibious forces, this has meant a deliberate move away from providing an intervention capability to developing a concept of distributed maritime advance forces able to be used across the spectrum of conflict.²² The future commando force and the littoral strike concept represent a significant change in direction and ambition for future amphibious operations. Greater emphasis on “sub-threshold” conflict, working more closely with special operations forces, and countering anti-access capabilities across wide geographic areas would give amphibious forces more contemporary relevance than emulating, but never matching, the achievements of their D-Day forebears.²³ In 2016, the LSD Royal Fleet Auxiliary (RFA) *Mounts Bay* (L 3008) deployed to the Mediterranean with an embarked Royal Marine special purpose task group (SPTG) to counter illegal migration and human trafficking.²⁴ In 2016–17, HMS *Ocean*, with the commander of the amphibious task group and his staff embarked, deployed to the Persian Gulf to lead the U.S. Fifth Fleet's Task Force 50, during which the organic Royal Marine SPTG conducted a complementary program of local engagement, training, and capacity building.²⁵ In 2018, the LPD HMS *Albion*

²⁰ Robert Gates's speech to the Marines' Memorial Club in San Francisco, CA, in August 2010, as quoted in Tom Bowman, “Marines Need to Regain ‘Maritime Soul,’ Gates Says,” National Public Radio, 24 August 2010.

²¹ *Naval Strategic Plan, 2006* (Portsmouth, UK: Royal Navy, 2006), 4; and *Securing Britain in an Age of Uncertainty: The Strategic Defence and Security Review* (London: Her Majesty's Government, 2010).

²² The topic of speeches by leading Royal Navy and Marine officers at the 2019 Defence and Security Equipment International exhibition was reported widely, including by Jon Rosamund, “DSEI: Royal Marines Embrace Littoral Strike and Prepare to Forward Deploy,” USNI News, 11 September 2019.

²³ Geoffrey James Roach, “The Potential Futures of British Power Projection,” *UK Defence Journal*, 5 March 2018.

²⁴ Her Majesty's Government, “PM Announces UK Deployment for NATO Mission in Aegean Sea to Tackle Migrant Crisis,” press release, 7 March 2016.

²⁵ “Royal Navy Leads US Task Force 50 for the First Time,” RoyalNavy.mod.uk, 26 November 2016.

(L 14) with an embarked SPTG deployed to the South China Sea to work with international allies and partners in freedom-of-navigation operations.²⁶ As single-vessel deployers, the risks were high but the national motivation behind the deployments was in part fueled by a desire to maintain a greater global maritime presence in key areas of interest. They were deemed a success.

The concept for the 2020s and 2030s is to form a number of forward deployed littoral strike units (LSUs). These LSUs would be comprised of one or more specialist amphibious ships with an embarked SPTG, enabled by helicopters, landing craft, and boats to act as ship-to-shore connectors and protected by an escorting frigate. A mix of manned and unmanned systems would be required for lift, strike, and logistic support. LSUs would routinely deploy alone but could aggregate when needed to form larger, more capable littoral strike groups. As the risk of conflict increased, they could merge into existing carrier-based maritime task groups, better able to engage in high-end, sophisticated peer-on-peer fighting to achieve sea control and, if necessary, provide an assault capability at scale, though that would no longer be their primary role. At the time of this writing, two littoral strike units are planned: one operating from the UK homeland for deployment to the High North, Baltic, North Atlantic, and Mediterranean and the other for use east of Suez, concentrating initially on the Middle East, but able to surge to the Indo-Pacific.²⁷

When viewed in isolation, the LSUs with their single *Albion*-class landing platform dock or, in the future, a yet-to-be-procured littoral strike ship are clearly of limited amphibious utility in the traditional sense; however, they do not represent a reduction in British ambition.²⁸ As a 2019 *Royal United Services Institution Journal* article points out, the concept of ship-to-shore amphibious assault may be hard-wired into the psyche of many marines, but such operations are difficult to imagine taking place today.²⁹ The required versatility may reside elsewhere. LSUs are designed to move the amphibious debate forward, to serve as precision instruments in coalition and multiagency operations based on the UK's fusion doctrine—"to deploy security, economic and influence capabilities to protect, promote and project our national security, economic and influence goals"—coordinated by the National Security Council.³⁰

The UK approach to amphibious operations has evolved. Its twenty-first century amphibious forces may be smaller and less focused on beach assaults ahead of follow-on forces, but they are becoming a more, not less, specialized entity organized for the challenges of maritime area denial. In many ways, they remain true to

²⁶ Tim Kelly, "British Amphibious Assault Ship Arrives in Tokyo," Reuters, 2 August 2018.

²⁷ "Defence Secretary Reveals Future Assault Ship Plan," RoyalNavy.mod.uk, 11 February 2019.

²⁸ Richard Scott, "UK to Study Fast-track Plan for Littoral Strike Ships," *Janes* 360, 12 February 2019.

²⁹ Sidharth Kaushal and Jack Watling, "Amphibious Assault Is Over," *RUSI Defence Systems* 21, no. 1 (January 2019).

³⁰ *National Security Capability Review*, 10.

the ideas and concepts set out in the landmark 1997 document. They still adhere to NATO doctrine. They still plan, embark, rehearse, move, operate, and terminate. Their command and control is still jointly executed by naval and marine staffs, and they can still deliver lasting effects whether acting in conflict, capacity building, or humanitarian assistance.

CHAPTER TWENTY-THREE

The U.S. Marine Corps and Advanced Base Operations

Past, Present, and Future

Walker D. Mills

*Three time[s] three cheers went up from the battalion, and from all the ships in the harbor came back an answering echo. Several of the ships fired a salute and blew their steam whistle. “The Flag up and to stay . . .”*¹

On 10 June 1898, the First Marine Battalion raised the American flag above Spanish positions overlooking Guantánamo Bay, Cuba.² This signaled the beginning of a new mission for the U.S. Marine Corps—seizing and defending advanced bases in support of the U.S. fleet.³ The U.S. Navy was rapidly expanding into an organization with global reach to support the fledgling empire of the United States as it gobbled up former Spanish possessions in the Caribbean and the Pacific. The U.S. Marines had long been used as assault troops and naval infantry going back

¹ Frank Keeler, *The Journal of Frank Keeler, 1898*, Marine Corps Letters Series No. 1, ed. Carolyn Tyson (Quantico, VA: Marine Corps Museum, 1998), 13.

² For historical accuracy, the more common contemporary use of 1st Marine Battalion has been replaced with the proper term for the period—First Marine Battalion.

³ The naval theorist Milan N. Vego gives the following definition for the term *advanced naval base*: “A naval base situated near the potential scene of action is called a forward or advanced naval base. It is established either permanently or temporarily near the prospective theater of operations but in either case should be within supplying distance from a major naval base. . . . Any island or point along a coast accessible by sea, and which possesses an anchorage could be turned into an advanced naval base rather quickly. Advanced bases are usually temporary and normally established in wartime.” Milan N. Vego, *Naval Strategy and Operations in Narrow Seas*, 2d ed. (London: Frank Cass, 2003), 65.

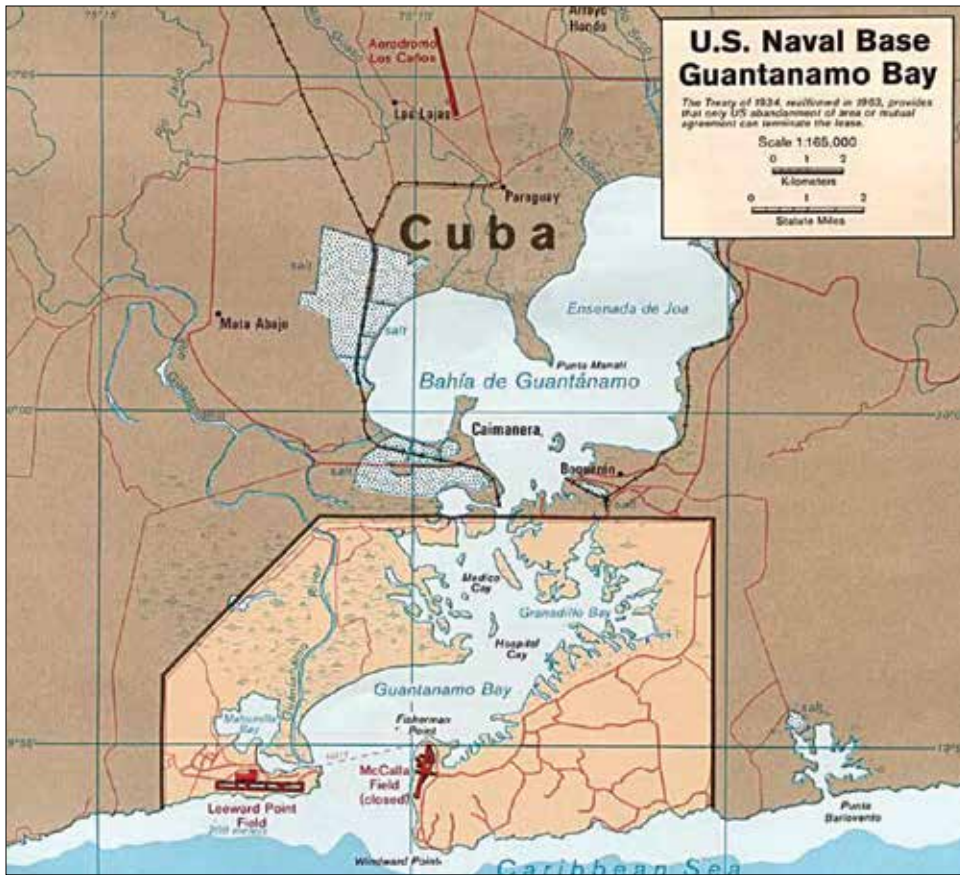


FIGURE 73
 Map of Guantánamo Bay, ca. 1934.
General Libraries, University of Texas at Austin

to pre-American times, but at Guantánamo Bay, an all-Marine force was deployed for the purpose of seizing a safe anchorage for the fleet for the first time.⁴ More than 120 years later, the advanced base seized in 1898 is still in use by the U.S. Navy as Naval Station Guantánamo Bay (figure 73). Now infamous as a military prison, it was instrumental as a coaling station and support base for the U.S. fleet during the ensuing blockade of Santiago de Cuba, Cuba, and the eventual invasion of Puerto Rico. Since the Spanish-American War, U.S. Marines have seized and defended advanced naval

⁴ Beyond just a safe anchorage, advanced naval bases can be used for a variety of purposes. Earl H. Ellis wrote: “The reason for their existence is increasing the radius of fleet activity, the fleet should not be hampered in its movements by being forced to take measures for base defense. The base must be provided with adequate defense in itself.” Earl H. Ellis, *Naval Bases: Location, Resources, Denial, and Security*, Fleet Marine Force Reference Publication 12-45 (Washington, DC: Headquarters Marine Corps, 1992), 3.

bases in support of naval campaigns worldwide. These bases have waxed and waned in importance to the Navy and Marine Corps during the last 120 years, following technological evolution and changes in the geopolitical threat landscape. Today, advanced naval bases are central to concept development and operational planning in the Marine Corps.

CARIBBEAN ORIGINS

In 1900, following the conclusion of the Spanish-American War, the U.S. Navy formed the General Board to guide and support the naval Service. During their first meeting, the board members called for the formation of what would become the Advanced Base Force. It was to be

*a force of Marines sufficient to hold each of the three positions at Culebra in the West Indies; Samana in Santo Domingo, and Guantanamo in Cuba; composition of this force as to infantry and artillery to maintain a position against cruisers or naval brigades.*⁵

The external threat to American possessions in the Caribbean passed in the decades that followed, however, and the Marines would never need to hold those bases against enemy naval brigades while under fire from cruisers in the Caribbean. It would be in the Pacific some 40 years later that this new organization was tried under fire. In the same General Board session, the Marine Corps was also charged with developing joint doctrine on amphibious operations—though this term did not yet exist—and taking the lead on other amphibious initiatives, such as identifying a suitable landing craft for assault forces.⁶ Influential Navy leaders such as Lieutenant William F. Fullam, who would achieve the rank of rear admiral, also supported this new role. The move had additional support from naval leaders because the Navy would have more control over Marines guarding their facilities and overseas bases than if the Army was guarding them.⁷ The Spanish-American War served as a turning point for the U.S. Navy and military writ large. Now that the United States had acquired the trappings of empire, its far-flung possessions needed to be fortified, garrisoned, and connected to the continental United States across thousands of miles of sea and ocean.

In 1914, the Corps further matured the advanced base concept with a large exercise on the island of Culebra which is off the coast of Puerto Rico. For several days, a full-strength “Advanced Base Brigade” with more than 1,700 Marines fortified the

⁵ Col Kenneth J. Clifford, *Amphibious Warfare Development in Britain and America from 1920–1940* (New York: Edgewood, 1983), 22.

⁶ LtCol Kenneth J. Clifford, *Progress and Purpose: A Developmental History of the United States Marine Corps 1900–1970* (Washington, DC: History and Museums Division, Headquarters Marine Corps, 1973), 9–10.

⁷ Maj David C. Emmel, “The Development of Amphibious Doctrine” (master’s thesis, U.S. Army Command and General Staff College, 2010), 7; and Heather Venable, *How the Few Became the Proud: Crafting the Marine Corps Mystique, 1874–1918* (Annapolis, MD: Naval Institute Press, 2019), 5.



FIGURE 74
Capt Earl H. Ellis.
Official U.S. Marine Corps photo

island.⁸ After their preparations were completed, a mixed force of Marines and sailors supported by mock naval gunfire attempted an amphibious assault against the brigade. The head referee handed down a clear verdict: “It was improbable that the landing force could have effected a landing in sufficient numbers to have made any impression on the defense.”⁹

The exercise was a success and the results validated the efficacy of the defense force, though it also forecast the difficulties of future landing operations. More importantly, the exercise was a key learning experience for three future Commandants of the Marine Corps: George Barnett, John A. Lejeune, and Wendell C. Neville.¹⁰ Captain Earl H. Ellis—a key architect and advocate of the advanced base force concept—was also at Culebra (figure 74). The annual exercises were canceled soon after

⁸ David J. Ulbrich, “Clarifying the Origins and Strategic Mission of the US Marine Corps Defense Battalion, 1898–1941,” *War and Society* 17, no. 2 (October 1999): 85.

⁹ Graham A. Cosmas and Jack Shulimson, “The Culebra Maneuver and the Formation of the U.S. Marine Corps’s [sic] Advance Base Force, 1913–14,” in *Assault from the Sea: Essays on the History of Amphibious Warfare*, ed. LtCol Merrill L. Bartlett (Annapolis, MD: Naval Institute Press, 1983), 129.

¹⁰ David J. Ulbrich, *Thomas Holcomb and the Advent of the Marine Corps Defense Battalion, 1936–1941*, Occasional Paper (Quantico, VA: History and Museums Division, Marine Corps University, 2004), 2.

the outbreak of the First World War. President Woodrow Wilson was concerned that the exercises were provocative; after the United States joined the conflict, the Navy and Marine Corps were concerned with operations.¹¹ The Marines would not have the opportunity to participate in another advanced base exercise of this size until the 1920s, when they returned to Culebra for the fleet exercises in 1922.¹²

After the first Culebra maneuvers, the Marine Corps realized that the capability to seize *defended* advanced bases was also critical. In 1922, the Commandant of the Marine Corps, General Lejeune, sent a memorandum to the General Board that outlined the missions of the Marine Corps and defined the purpose of the Advanced Base Force:

*to supply a mobile force to accompany the Fleet for operations on shore in support of the Fleet. This force should be of such size, organization, armament and equipment as may be required by the plan of naval operations. Also it should be further utilized in conjunction with Army operations on shore, when active naval operations reach a stage as to permit its temporary detachment from the Navy.*¹³

Kenneth J. Clifford argued in his book, *Amphibious Warfare Development in Britain and America from 1920–1940*, that the advanced base force gained an offensive mission—it would now also be responsible not just for defending advanced bases but also seizing advanced bases. Clifford believed that

*since there were no objections from the Board to General Lejeune's remarks, the memorandum basically changed the tactical direction of the Marine Corps in the succeeding decades. The Commandant envisioned a mobile force, in readiness and capable of offensive operations. . . . Up to this point "seizing an advanced naval base" was understood to mean a base undefended or uninhabited.*¹⁴

The Marine Corps continued to work during the 1920s not only refining its advanced base concepts but also nesting them in a broader U.S. Pacific strategy. War Plan Orange was the United States' plan for war with Japan and within it was a requirement for advanced bases.¹⁵ It was understood at the time that advanced bases would need to be seized and defended to prosecute a successful campaign against Japan. Now a lieutenant colonel, Ellis produced his forward-looking manuscript, *Advanced Base Operations in Micronesia*, in early 1921—a study that would help inform War

¹¹ Craig C. Felker, *Testing American Seapower: U.S. Navy Strategic Exercises, 1923–1940* (College Station: Texas A&M University Press, 2007), 28.

¹² Clifford, *Amphibious Warfare Development in Britain and America from 1920–1940*, 85–89.

¹³ Clifford, *Amphibious Warfare Development in Britain and America from 1920–1940*, 26.

¹⁴ Clifford, *Amphibious Warfare Development in Britain and America from 1920–1940*, 27.

¹⁵ Edward S. Miller, *War Plan Orange: The U.S. Strategy to Defeat Japan, 1897–1945* (Annapolis, MD: Naval Institute Press, 1991).

Plan Orange. A significant contributor to the Marine Corps' amphibious mission, Ellis is often referred to as an "Amphibious Prophet," though other attributes no doubt contributed to his fame (Ellis was a known alcoholic, and was reportedly drunk during the Battle of Blanc Mont).¹⁶

In May 1921, Ellis left the United States for the Pacific disguised as a German merchant on a secret intelligence-gathering mission for the Marine Corps. He never returned to the United States alive or completed his report, and the cause of his death on a small, Japanese-controlled island in the Pacific is still the subject of some controversy. Officially, he died as a result of complications with a lingering condition, but foul play is suspected. A 1997 book on Ellis by Dirk A. Ballendorf and Merrill L. Bartlett asserted that in the midst of a descent into a bout of alcoholism, Japanese authorities delivered the coup de grace by giving Ellis two more bottles of whiskey. Roughly a year after his death, a Japanese official returned Ellis's Naval Intelligence codebooks to the Office of Naval Intelligence in Washington, DC, without explanation.¹⁷

Throughout the 1930s, the Marine Corps refined its concepts for a Pacific war and renamed the advanced base force twice, finally settling on Fleet Marine Force (FMF) organization in 1933. With fewer dollars to spend on training because of the Great Depression, the Marines focused on the intellectual development of their concept. Students and faculty at the U.S. Naval War College in Newport, Rhode Island, worked on a series of advanced base problems—one each year, with most focused on the Pacific theater.¹⁸ The Marine Corps Schools in Quantico, Virginia, suspended classes so the faculty and students could work together on the *Tentative Manual for Landing Operations*, which was published in 1934, further balancing Marine offensive and defensive capabilities.¹⁹

At the beginning of the Second World War, the Fleet Marine Force was unique because it was responsible for both seizing and defending naval bases. The Imperial Japanese Navy employed units of Special Naval Landing Forces, but they were organized for offensive operations only, though later in the war the Japanese eventually codified an "anti-landing doctrine."²⁰ The Royal Navy used Royal Marine Mobile Naval Base Defense Organizations but they were organized for base defense only.²¹ Historically, it has been much more common for militaries to regard nonlanding op-

¹⁶ LtCol John J. Reber, USMC (Ret), "Pete Ellis: Amphibious Warfare Prophet," *U.S. Naval Institute Proceedings* (November 1977); and B. A. Friedman, ed., *21st Century Ellis: Operational Art and Strategic Prophecy for the Modern Era* (Annapolis, MD: Naval Institute Press, 2015), 6-7.

¹⁷ Reber, "Pete Ellis."

¹⁸ Clifford, *Amphibious Warfare Development in Britain and America from 1920-1940*, 99.

¹⁹ Ullbrich, "Thomas Holcomb and the Advent of the Marine Corps Defense Battalion," 11.

²⁰ Theodore L. Gatchel, *At the Water's Edge: Defending Against the Modern Amphibious Assault* (Annapolis, MD: Naval Institute Press, 2013), 208. At present, there are efforts in the Colombian Marine Corps to develop a coastal defense doctrine.

²¹ Donald F. Bitner, "Britannia's Sheathed Sword: The Royal Marines and Amphibious Warfare in the Interwar Years—A Passive Response," *Journal of Military History* 55, no. 3 (July 1991).

erations as “simply ground operations and applied standard land warfare defensive doctrine.”²²

Acquiring and designing appropriate types and numbers of landing craft was another problem that had dogged amphibious planners for centuries. At the same time as the Marines were codifying their amphibious doctrine, they were also experimenting with amphibious boats. Eventually, the Marine Corps developed a suitable craft by adding a ramp to a boat designed for the Louisiana bayou—it would become the famous Higgins boat.²³

TRIAL BY FIRE

On 9 January 1941, a group of laborers and engineers arrived on a small atoll in the Pacific named Wake Island to prepare an airfield and defensive works. Ten months later, the First Marine Defense Battalion and Marine Attack Squadron 211 (VMF-211) garrisoned the island. Three days after the fighters arrived, Japanese forces attacked Pearl Harbor. The next day, the Japanese began air raids on Wake Island. The Marines held out against air attack, naval gunfire, and attempted landings until 23 December.²⁴ The Battle of Wake Island represents one of the most successful defenses against a concerted amphibious landing during the war. Armed with 5- and 3-inch guns, machine guns, and small arms, the Marines were able to hold out against Japanese forces for more than two weeks. They also managed to sink the Japanese destroyer *Hayate* (1925), the first Japanese surface ship sunk by U.S. forces during the war. It was the high point for Marine defense forces during the war because later defenses would be overshadowed by the much larger and dramatic offensive operations of the island-hopping campaign.

Despite their tenacity, the defenders of Wake Island were undermanned and under equipped. They had only 30 percent of their allotted heavy machine guns and only 4 of 12 aircraft were operational.²⁵ A full-strength defense battalion was allotted roughly 1,000 officers and personnel but the Wake Island defenders had fewer than 400 Marines present for duty.²⁶ Wake was scheduled as a priority to receive more reinforcements and a convoy with those replacements was underway during the battle but turned back after forces on the island surrendered on 23 December.²⁷ The defense of Wake Island showed that even an undermanned unit designed specifically for base defense could be effective. After the end of the Second World War, Admiral Ray-

²² Gatchel, *At the Water's Edge*, 155.

²³ Anne Cipriano Venzon, *From Whaleboats to Amphibious Warfare: Lt. Gen. “Howling Mad” Smith and the U.S. Marine Corps* (Westport, CT: Praeger, 2003), 65–66.

²⁴ Jim Moran, *Wake Island, 1941: A Battle to Make the Gods Weep* (Oxford, UK: Osprey Publishing, 2011), 9.

²⁵ Ullbrich, “Thomas Holcomb and the Advent of the Marine Corps Defense Battalion,” 39.

²⁶ LtCol Frank O. Hugh, Maj Verle E. Ludwig, and Henry I. Shaw, *Pearl Harbor to Guadalcanal: History of U.S. Marine Corps Operations in World War II*, vol. 1 (Washington, DC: Historical Branch, G-3 Division, Headquarters Marine Corps, 1958), 95–100.

²⁷ Ullbrich, “Thomas Holcomb and the Advent of the Marine Corps Defense Battalion,” 40.

mond A. Spruance recounted that “the war in the Pacific became largely a matter of the seizure of advance bases and their subsequent deployment for the support of the fleet, air and ground forces.”²⁸

The Marine Corps’ defense battalions served across the Pacific theater, employed either on their own, as was the case Midway and Wake, or in support of larger units and operations. During the Second World War, the battalions shifted to an anti-aircraft role, reflecting the larger threat to U.S. forces from Japanese aircraft, with a few exceptions.²⁹ In the Solomon Islands, the 9th Defense Battalion was employed against Japanese small boats and barges.³⁰ All but two of the defense battalions were renamed anti-aircraft artillery battalions in 1944, and all of them were deactivated after the end of war, much like the U.S. Army’s Coastal Artillery Corps.³¹ America shifted to a posture of power projection and forward basing after the war. With a permanent U.S. presence in Japan, the Philippines, the Mediterranean, and Western Europe, the requirement for advanced bases dwindled as American forces were already on the doorstep of potential adversaries. Furthermore, fleets powered by nuclear reactors and air forces equipped with long-range bombers and aerial refueling tankers gave naval and air forces the endurance for transoceanic strikes without the need for advanced bases.

THE REST OF THE CENTURY: SPEED AND REACH

During the next 50 years, advanced naval bases did not feature as prominently for the U.S. military. After the end of the Second World War, the U.S. military had permanent bases in Italy and Japan to homeport naval units on the doorstep of potential adversaries. These bases, while “advanced” in the geographic sense, cannot be considered advanced in the sense that they temporarily extended the reach of the fleet or air forces. They were permanent and many remain so today. Ships still relied on logistics bases, but nuclear power, at sea replenishment, and the increased efficiency of diesel engines lowered their dependence on strings of bases.³² Similarly, as longer-range aircraft replaced World War II-vintage airframes, fewer bases were needed in areas such as the Pacific. More U.S. aircraft could cover the distances between island bases, such as those on Guam, Okinawa, and Hawaii, without intermediate stops to refuel.

In 1982, however, the British Royal Navy and Air Force proved that advanced

²⁸ Samuel Eliot Morison, *The Two Ocean War: A Short History of the United States Navy in the Second World War* (Boston, MA: Little, Brown, 1963), 77–78.

²⁹ A total of 20 battalions were created. The battalions were numbered 1–18, with the 51st and 52d Defense Battalions of segregated African American units added later.

³⁰ Joseph P. Frankoski, “AA Gun Flexibility,” *Air Defense Magazine*, April–June 1981, 19–24.

³¹ Maj Charles D. Melson, *Condition Red: Marine Defense Battalions in World War II*, Marines in World War II Commemorative Series (Washington, DC: Historical Branch, G-3 Division, Headquarters Marine Corps, 1996), 29–32.

³² Barry M. Blechman and Robert G. Weinland, “Why Coaling Stations Are Necessary in the Nuclear Age,” *International Security* 2, no. 1 (Summer, 1977): 88–89.

base operations were still relevant, and provided an example of their continued relevance in the Falklands War with Argentina. Ascension Island, a small island roughly in the middle of the South Atlantic, was used as an advanced naval base in support of the British campaign in the Falklands as a base for strike aircraft and as a logistical hub. The island was a British dependency without any native residents. The British government had leased Ascension's Wideawake airfield and its lone 10,000-foot runway to the United States. The United States in turn promptly opened it for British military use. The combination of airport facilities and sheltered anchorages provided the British task force an advanced base nearly halfway between the United Kingdom and the disputed Falkland Islands. The advanced base at Ascension was also conveniently close to Dakar, Senegal, where the British could refuel planes en route to the island.³³

Most famously, the airport at Ascension became the launching pad for the Operation Black Buck raids—a series of raids on the Falklands by British Avro Vulcan medium-range strategic bombers. They were the only aircraft available and capable of carrying enough of the 1,000-pound bombs required to cripple the runway at Port Stanley, capital of the Falklands. Despite the use of Ascension as an advanced base, the bombers still needed a fleet of tankers to make the more than 7,000-mile-round-trip flight from Ascension to the Falklands—a feat only possible because of the increased reach that the advanced naval base at Ascension provided.³⁴

Less well-known is the extent to which Ascension was used as a logistics base for the British task force. Because ships sortied from Southampton and Gibraltar on short notice in response to the unanticipated Argentine invasion of the Falklands, they were not able to sortie with all of their equipment or at full readiness. They embarked critical supplies and replacement parts at Ascension after they had been flown into Wideawake airfield. Some spare parts were even dropped by aircraft into the water next to the ships at anchor off Ascension.³⁵ Admiral John F. Woodward, the British South Atlantic Task Force commander, wrote in his account of the war that “free use of the facilities at Ascension was critical,” in a typically British understatement.³⁶ Of all the equipment loaded there, probably the most important were the American-made, air-to-air AIM-9 Sidewinder missiles that gave the carrier-based British Aerospace Harrier II jump jet a decisive advantage against Argentine jets and, of course, fuel. Fuel was an enduring problem for the task force, and they were forced to rely on the American reserves of bulk fuel and tanker resupply ultimately totaling several million gallons.³⁷

³³ Sir Lawrence Freedman, *The Official History of the Falklands Campaign: War and Diplomacy*, vol. 2 (New York: Routledge, 2005), 64.

³⁴ Freedman, *The Official History of the Falklands Campaign*, 65.

³⁵ Freedman, *The Official History of the Falklands Campaign*, 65.

³⁶ Adm Sandy Woodward with Patrick Robinson, *One Hundred Days: The Memoirs of the Falklands Battle Group Commander* (Annapolis, MD: Naval Institute Press, 1992), 87.

³⁷ Freedman, *The Official History of the Falklands Campaign*, 64–65.

The most significant logistical problem at Ascension was personnel. Wideawake had previously been a small facility supporting a few flights per week, and it grew to several hundred personnel in just a few days. There were shortages of water and issues with sewage and other basic amenities. Lawrence Freedman, in his official history of the conflict notes that aircraft operating from Ascension, but not needed at the moment, were forced to park in Gibraltar or all the way back in the United Kingdom.³⁸ The Royal Navy captain in charge of running operations at Ascension became known as “Captain One in, One Out” because of the constant effort to restrict the number of personnel on the island.³⁹ This was especially difficult because of disagreements between the Royal Air Force and the Royal Navy and an inefficient command structure. The Air Force believed that their orders to support bomber raids on the Falklands meant that they could bring as many support personnel to Ascension as they thought necessary, and the Navy disagreed. Freedman wrote that the problem at Ascension was that “there was only one war and an oversupply of people who wanted to be part of it.”⁴⁰

Ultimately, it was in the less glamorous service as a logistical hub that the base proved most valuable. While the Black Buck raids were valuable for morale, only a single 1,000-pound bomb hit the runway in Port Stanley, and while it degraded the runway, it did not close it entirely.⁴¹ The raids limited Argentine air operations, but did not close the runway to FMA IA 58 Pucará and Boeing C-130 Hercules aircraft.⁴² And the much more capable Argentine Dassault-Breguet Super Étendard were already unable to use the airfields on the Falklands and could only sortie from bases on the Argentine mainland. This issue considerably reduced their range and time on station for operations around the Falklands.

The new Sidewinder missiles that the task force embarked from Ascension were responsible for downing 17 Argentine aircraft during the conflict, a much more significant impact than the Black Buck raids. If the missiles could not have been loaded at Ascension, it is possible that the whole task force would have waited for them to be embarked at Gibraltar or the United Kingdom. It is also possible that the task force would have proceeded without them and sustained greater, potentially decisive losses, from Argentine naval aviation.

Toward the end of the twentieth century, the U.S. Marine Corps pursued new concepts in seabasing and ship-to-shore maneuver. *Ship-to-shore maneuver* refers to assaulting objectives inland with all of the necessary combat power and logistics before first seizing a beach landing zone and pausing to transition to terrestrial operations. These concepts were intellectual but rooted in then-current technology. Ship-to-shore maneuver was predicated on the proliferation of rotary-wing aircraft and the

³⁸ Freedman, *The Official History of the Falklands Campaign*, 65.

³⁹ Freedman, *The Official History of the Falklands Campaign*, 67.

⁴⁰ Freedman, *The Official History of the Falklands Campaign*, 67.

⁴¹ Max Hastings and Simon Jenkins, *The Battle for the Falklands* (New York: W. W. Norton, 1983), 144.

⁴² Freedman, *The Official History of the Falklands Campaign*, 285–86.

promise of tilt-rotor assault support aircraft that could quickly and efficiently move large numbers of Marines from ships at sea directly to objectives inland. Seabasing relied on fleets of Maritime Prepositioning Ships (MPS) that held Marine equipment at sea indefinitely, ready for offload when needed. These parallel concepts were eventually overshadowed by the Marine Corps long contributions to the Global War on Terrorism (GWOT) in sustained operations ashore and eventually retreated from the limelight in the face of emergent threats in the twenty-first century. The USS *Lewis B. Puller* (ESB 3), delivered in 2015, is the ultimate iteration of a purpose-built seabasing platform. The vessel has a 52,000-square-foot flight deck, and large spaces for storage, repair, and mission planning. It can permanently accommodate up to 250 personnel and, according to a Department of Defense spokesman, is intended for “multiple missions, such as mine counter measures, counter-piracy operations, maritime security operations, humanitarian aid and disaster relief missions and crisis response operations.”⁴³ However, the proliferation of capable antiship weaponry and a renewed emphasis on expeditionary operations mean the *Puller* will be used primarily in contingency response and special operations support when there is not a high-end threat.

ADVANCED BASES IN THE TWENTY-FIRST CENTURY AND TODAY

In the last decade, the U.S. military has awoken to mature and robust antiaccess/area-denial (A2/AD) networks in the Pacific, Baltic, and Black Seas after a generation of conflict in the Middle East.⁴⁴ Sam J. Tangredi, in his authoritative book on the subject, *Anti-Access Warfare*, argued that A2/AD focused strategies are “considered primary strategic challenges to the international security objectives of the United States and its allies and partners.”⁴⁵ A2/AD strategies typically rely on a mix of inexpensive weapon systems, such as diesel-electric submarines, land-based antiship missiles, and fast-attack craft. Land-based missiles are critical components of the Chinese A2/AD strategy. The People’s Liberation Army Rocket Force (PLARF) has hundreds of land-based ballistic missiles and antiship cruise missiles.⁴⁶ These missiles can be fired from mobile launchers on the Chinese mainland or from aircraft sortied from air bases on the mainland. In recent years, their range has increased dramatically. In 2016, the

⁴³ Military Sealift Command Public Affairs, “USNS Lewis B. Puller Begins First Operational Deployment,” press release, 11 July 2017.

⁴⁴ The *Department of Defense Dictionary of Military and Associated Terms* defines these terms separately, where *anti-access* refers to the “action, activity, or capability, usually long-range, designed to prevent an advancing enemy force from entering an operational area” and *area denial* refers to the “action, activity, or capability, usually short-range, designed to limit an enemy force’s freedom of action within an operational area.” See *DOD Dictionary of Military and Associated Terms*, Joint Publication 1-02 (Washington, DC: Joint Chiefs of Staff, 2020), 18–19.

⁴⁵ Sam J. Tangredi, *Anti-Access Warfare: Countering A2/AD Strategies* (Annapolis, MD: Naval Institute Press, 2013), 1.

⁴⁶ *Annual Report to Congress: Military and Security Developments Involving the People’s Republic of China, 2016* (Washington, DC: Office of the Secretary of Defense, 2016), 44–45.

Chinese unveiled the Dong Feng or DF-26 missile, which can range as far as 4,000 kilometers (km) and has an antiship version in development.⁴⁷ In a potential conflict, these missiles would threaten all of the U.S. bases in the Western Pacific and could “destroy ‘up to 70 per cent’ [sic] of [forward-based] aircraft in the opening stages of a conflict.”⁴⁸ A Center for a New American Security report found in its analysis that U.S. bases in the Western Pacific would face “devastation” by Chinese missiles in a conflict.⁴⁹ Any large surface ships in the region would be at similar risk. Until the Chinese missile threat could be reduced or neutralized, the large amphibious ships and aircraft carriers that form the backbone of U.S. naval power would likely be kept out of range—dramatically reducing their effectiveness and ability to project power through their aircraft. However, Navy leaders have argued that aircraft carriers are safer than ever. In a speech, Chief of Naval Operations Admiral John M. Richardson argued that

*rather than talk about the vulnerability of the carrier strike group, we should think about it as the most survivable airfield in the region. If you look at the history of the vulnerability of aircraft carriers, we’re less vulnerable now than we have been since and including World War II.*⁵⁰

Either way, the possibility that carriers may have to be kept out of range of Chinese missiles and thus well away from any potential fight has complicated the Pentagon’s thinking. Toshi Yoshihara and James R. Holmes, in their book on the Chinese Navy, *Red Star Over the Pacific*, paint an increasingly grim picture for U.S. naval forces in the region.

*If our diagnosis is correct, the United States and its allies are in a danger zone. . . . The martial balance may continue shifting toward the PLA in the coming years as Chinese forces expand, improve their arsenal, and refine their tactics to make the best use of the contested zone.*⁵¹

The United States does not have weapons equivalent to the Chinese land-based, conventional ballistic missiles because land-based ballistic and cruise missiles with ranges between 500 and 5,000 km were prohibited under the 1987 Intermediate-Range Nuclear Forces (INF) Treaty. This further complicated the balance of power in the

⁴⁷ “DF-26: Dong Feng-26,” Missile Threat Defense Project, Center for Strategic and International Studies, 2020.

⁴⁸ Ashley Townshend, Brendan Thomas-Noone, and Matilda Steward, *Averting Crisis: American Strategy, Military Spending and Collective Defense in the Indo-Pacific* (Sydney, Australia: United States Studies Centre, 2019), 56.

⁴⁹ Cdr Thomas Shugart, USN, and Cdr Javier Gonzalez, USN, *First Strike: China’s Missile Threat to U.S. Bases in Asia* (Washington, DC: Center for a New American Security, 2017), 1.

⁵⁰ Richard R. Burgess, “CNO Defends Survivability, Utility of Aircraft Carriers,” *Seapower Magazine*, 29 January 2019.

⁵¹ Toshi Yoshihara and James R. Holmes, *Red Star Over the Pacific: China’s Rise and the Challenge to U.S. Maritime Strategy*, 2d ed. (Annapolis, MD: Naval Institute Press, 2018), 218–19.

Western Pacific. Until withdrawing from the INF Treaty in 2019, the United States was not able to build or field missiles systems comparable to Chinese platforms. Since withdrawing from the treaty, the Pentagon has announced its intention to rapidly design and field such weapons, but it remains to be seen how long this process will take. Prior to that announcement, criticism of the INF Treaty had been growing for precisely those reasons—it facilitated a lopsided power balance in the Pacific.⁵² Admiral Philip S. Davidson, former commander of what is now Indo-Pacific Command, wrote in testimony that fielding land-based systems previously banned under the INF would “provide additional options to counter China’s existing missile capabilities, complicate adversary decision making, and impose costs by forcing adversaries to spend money on expensive missile defense systems.”⁵³ A 2013 Rand study of the problem found that U.S. intermediate-range, conventional ballistic missiles

*could help deter conflict, and could contribute to victory in a future conflict by increasing flexibility and expanding the set of tools available to U.S. commanders. . . . It is also likely that fielding ASMs [air-to-surface missiles] would be cheaper—perhaps significantly so—than other means of deterrence.*⁵⁴

This increasing threat to legacy bases and naval platforms has impacted U.S. naval thinking. In response, the Navy and Marine Corps want to protect their forces through distribution and mobility. This approach was codified in the classified concept distributed maritime operations (DMO). Three admirals announced the new concept in the article “Distributed Lethality” that ran in the U.S. Naval Institute’s *Proceedings* in 2015. The concept focuses on a need “to shift to an offensive imperative to control the seas” instead of emphasizing the inland power-projection the Navy had been practicing for several decades and Marine concepts such as ship-to-objective maneuver.⁵⁵ Instead, Marine forces ashore can augment the lethality of the fleet and extend its reach with advanced bases to further distribute the force. Advanced bases returned to the conversation and were intended to both support the fleet as well as create an organic sea-denial capability for the Marines. Though the article did not use the term *advanced base* in a theoretical scenario, it envisioned Marine Lockheed Martin F-35 Lightning II aircraft operating from a temporary and austere base in support of the naval force. Acting Secretary of the Navy Thomas B. Modly empha-

⁵² Scott A. Cuomo, “It’s Time to Make a New Deal: Solving the INF Treaty’s Strategic Liabilities to Achieve U.S. Security Goals in Asia,” *Texas National Security Review* 2, no. 1, (November 2018), <http://dx.doi.org/10.26153/tsw/866>.

⁵³ “Advance Policy Questions for Admiral Philip Davidson, USN: Expected Nominee for Commander, U.S. Pacific Command,” Committee on Armed Services, U.S. Senate (statement, Adm Philip S. Davidson, 17 April 2018).

⁵⁴ Terrence K. Kelley et al., *Employing Land-Based Anti-Ship Missiles in the Western Pacific* (Santa Monica, CA: Rand, 2013), 19.

⁵⁵ VAdm Thomas Rowden, RAdm Peter Gumataotao, and RAdm Peter Fanta, USN, “Distributed Lethality,” U.S. Naval Institute *Proceedings* 141, no. 1 (January 2015).

sized in a 2019 speech that there is “no decrease in operational requirements, and yet there are not enough ships to do the mission.”⁵⁶ Advanced bases are a way for Marines to augment the lethality of the surface fleet with every advanced base serving as an unsinkable warship. With American airbases in Japan and carriers threatened by the A2/AD capabilities of regional opponents, U.S. forces would need to operate in the Western Pacific by, with, and through advanced bases that can provide options for distributing and dispersing forces in a way that creates options for survivability.

Advanced base theory reemerged in parallel with DMO to help Marines address the A2/AD threat. Marine Corps concepts such as littoral operations in a contested environment (LOCE) and the new expeditionary advanced based operations (EABO) are efforts to keep Marine forces relevant against contemporary threats while simultaneously reintegrating the Marine Corps into potential maritime campaigns with new naval concepts such as DMO. Marines have often been quick to point out that LOCE and EABO are a return to the advanced base operations of their past.⁵⁷ A Center for Strategic and Budgetary Assessments report described the coordinated operational concepts:

*In concert with DMO and LOCE, EABO seeks to enable Marines to conduct mobile and distributed operations in austere conditions ashore for the purpose of providing fires, ISRT [intelligence, surveillance, reconnaissance, and targeting], EW [electronic warfare], and ground support to an overall naval force.*⁵⁸

These efforts aim to “turn the tables on A2/AD” through the use of forward and dispersed bases hosting both offensive and defensive capability. Historically, advanced bases needed to be protected but were not thought of as platforms for offensive capability. Outside the Marine Corps, studies by the Center for Strategic and Budgetary Assessments, *Advancing Beyond the Breach: Amphibious Operations in the Era of Precision Weapons*, and the Heritage Foundation’s *Rebuilding America’s Military: The United States Marine Corps* have also advocated for returning the Marine Corps to a focus on advanced bases.⁵⁹

In addition to increasing survivability against the A2/AD threat, advanced bases are intended to be the platforms for U.S. strike assets such as aircraft and land-based

⁵⁶ Gidget Fuentes, “Modly: Navy Needs to ‘Radically Change’ How It Operates in New Era of Great Power Competition,” *USNI News*, 14 February 2019.

⁵⁷ Scott D. Aiken, “Revisiting Advanced Base Operations: The Current Pacific Situation is Strikingly Similar,” *Marine Corps Gazette* 98, no. 3 (March 2014), 31–34.

⁵⁸ Bryan Clark and Timothy A. Walton, *Taking Back the Seas: Transforming the U.S. Surface Fleet for Decision-Centric Warfare* (Washington, DC: Center for Strategic and Budgetary Assessments, 2019), 24.

⁵⁹ Steven Stashwick, “US Navy, Marine Corps Unveil New Strategy to Turn the Tables on A2/AD,” *Diplomat*, 2 October 2017; Bryan Clark and Jesse Sloman, *Advancing Beyond the Beach: Amphibious Operations in an Era of Precision Weapons* (Washington, DC: Center for Strategic and Budgetary Assessments, 2016); and Dakota Wood, *Rebuilding America’s Military: The United States Marine Corps* (Washington, DC: Heritage Foundation, 2019).

missiles in a Western Pacific conflict. *Littoral Operations in a Contested Environment*, published in 2016, offered the foundation for what these bases would look like in practice and laid the groundwork for a further refined EABO concept to follow:

The EABO concept further distributes lethality by providing land-based options for increasing the number of sensors and shooters beyond the upper limit imposed by the quantity of seagoing platforms available. The EABO concept espouses employing mobile, relatively low-cost capabilities in austere, temporary locations forward as integral elements of fleet/JFMCC [Joint Force Maritime Component Command] operations.⁶⁰

Navy and Marine leaders believe that by distributing U.S. forces beyond their permanent bases, the force will be more survivable and better able to contribute to an offensive fight for sea control or sea denial. LOCE outlines important measures to increase coordination and control to better integrate Marine and Navy forces. EABO, while still classified, has been widely discussed and speculated on. An unclassified description of the concept defined it as “a future naval operational concept that meets the resiliency and forward presence requirements of the next paradigm of US Joint expeditionary operations. The concept is adversary-based, cost-informed, and advantage-focused.”⁶¹

If DMO returned the advanced base concept to Navy and Marine Corps thinking by giving leaders a *what* and *why*, LOCE and EABO is intended to give them a *how*. That *how* resides in mobile, low-signature bases that can provide a range of capabilities. Advanced bases can support strike aircraft such as the F-35, maritime patrol aircraft such as the Boeing P-8 Poseidon, or a range of logistics and support aircraft. They can also host sensors and shooters such as radar and M142 High Mobility Artillery Rocket System (HIMARS) rocket artillery. They are expected to also be able to host whatever platform emerges from the Army long-range, precision fires modernization program and the Marine Corps’ next-generation unmanned aerial vehicle (UAV) program.

Marine Corps leaders recognized that the Service was not prepared for the challenge of LOCE and EABO. The Marine Corps was optimized for large-scale amphibious operations and counterinsurgency. Both Commandants General Robert B. Neller and General David H. Berger agreed, “The Marine Corps is not organized, trained, equipped, or postured to meet the demands of the rapidly evolving future operating environment.”⁶² The same day that General Berger relieved Neller as the Com-

⁶⁰ “Littoral Operations in a Contested Environment” (unclassified summary, Marine Corps Warfighting Laboratory, 2016).

⁶¹ Arthur Corbett, *Expeditionary Advanced Base Operations (EABO) Handbook: Considerations for Force Development and Employment*, version 1.1 (Quantico, VA: Concepts and Plans Division, Marine Corps Warfighting Lab, 2018), 5.

⁶² Gen David H. Berger, *Commandant’s Planning Guidance: 38th Commandant of the Marine Corps* (Washington, DC: Headquarters Marine Corps, 2019), 1.

mandant of the Marine Corps, he released his *Commandant's Planning Guidance*. The humbly named document represented the largest shift in the direction of the Marine Corps since 11 September 2001 (9/11). The Commandant directed that the force would go all-in on EABO and largely leave behind its legacy in the Middle East. The new Commandant wanted change at all levels—he was not only putting LOCE and EABO at the core of the Marine Corps, he also intended to significantly change the composition of the force. He wrote that force design was his “number one priority” and added that “we must divest of legacy capabilities that do not meet our future requirements, regardless of their past operational efficacy.”⁶³

Less than a year later, Commandant Berger released his *Force Design 2030* report.⁶⁴ This included specific changes to the force structure of the Marine Corps that had only been discussed in generalities in the *Commandant's Planning Guidance*. The Marine Corps was going to divest an infantry regiment and all three of its tank battalions, to convert the majority of its howitzer artillery to missile and rocket artillery, and to divest eight aircraft squadrons, among other cuts. Unmanned aircraft squadrons would replace some of this force structure, but the force would shrink by roughly 12,000 Marines.⁶⁵ These changes would help redesign the force to be “uniquely capable of performing EABO and Distributed Operations (DO).”⁶⁶ Commandant Berger emphasized that the report was only the beginning of a decade-long force design process and more changes were coming to help optimize the Marine Corps for EABO and LOCE, quoting John P. Kotter: “Transformation is a process, not an event.”⁶⁷

CONTEMPORARY CHALLENGES

Despite the work done by the Navy and Marine Corps to operationalize their new iteration of advanced bases, they have received criticism from inside and outside the force and still face significant challenges.⁶⁸ Military leaders anticipated flat or falling budgets and a continuing conflict in the Middle East that would draw attention away from the Pacific.⁶⁹ The primary question that remains to be answered by the force is if the envisioned advanced bases are feasible logistically. Marine leaders admit that the logistics for EABO is a work in progress and have tried to solicit innovative ideas from the force to bridge the gap between the current capability and requirements. A 2019 Center for Strategic and Budgetary Assessments report found that even before accounting for new distributed operating concepts the “maritime logistics force of the United States is inadequate to support the current U.S. National Defense Strat-

⁶³ Berger, *Commandant's Planning Guidance*, 2.

⁶⁴ *Force Design 2030* (Washington, DC: Headquarters Marine Corps, 2020).

⁶⁵ *Force Design 2030*, 8.

⁶⁶ *Force Design 2030*, 6.

⁶⁷ *Force Design 2030*, 1.

⁶⁸ Jim Webb, “The Future of the U.S. Marine Corps,” *National Interest*, 8 May 2020.

⁶⁹ Rick Berger, “A Flat Budget Will Prove Fatal for Military Transformation,” *Defense News*, 28 May 2019.



FIGURE 75

Marines assigned to 1st Battalion, 4th Marines, stand by in the hangar bay of the *Wasp*-class amphibious assault ship *USS Essex* (LHD 2) to embark aboard aircraft during Dawn Blitz.

Official U.S. Navy photo, courtesy of MC3c Chandler Harrell

egy and major military operations against China or Russia.”⁷⁰ This logistics gap is exacerbated by the lack of major exercises to test EABO. Dawn Blitz 2018, an exercise in Southern California, was the first time that Marines attempted EABO at a large scale (figure 75). Furthermore, as suggested earlier, the Marines may need to seek out new littoral or archipelagic training areas to support EABO exercises.⁷¹

EABO offers little or no role for close-combat forces, which make up the largest portion of the Marine Corps. Large-scale organizational changes to the Marine Corps intended to better prepare the force for EABO will inevitably produce winners and losers, with communities fighting to justify their continued existence and resourcing. One proposed alternative or supplement to EABO is the Marine Warbot Company.⁷² This concept was developed by a collection of active duty Marine officers and envisions highly capable Marine infantry equipped with unmanned systems

⁷⁰ Timothy A. Walton, Ryan Boone, and Harrison Schramm, *Sustaining the Fight: Resilient Maritime Logistics for a New Era* (Washington, DC: Center for Strategic and Budgetary Assessments, 2019), i.

⁷¹ Walker Mills, “Terrain Matters: Training and Basing in Alaska,” Modern War Institute at West Point, 20 February 2019.

⁷² Scott Cuomo et al., “Not Yet Openly at War, But Still Mostly at Peace: The Marine Corps’ Roles and Missions Around Key Maritime Terrain,” *War on the Rocks*, 23 October 2018.

and autonomous munitions that can be rapidly deployed in small teams by the Bell Boeing MV-22 Osprey tilt-rotor and future vertical lift *before* a conflict, to preclude *fait accompli* actions by adversaries.⁷³ Unmanned systems functioning as platforms for sensors and shooters offer new opportunities for advanced base operations, but their potential has yet to be fully explored. EABO has also been criticized for trying to shoehorn legacy capabilities into the current problem. It still emphasizes manned aircraft and requires the use of legacy ship-to-shore connectors that are decades old and largely unarmed.⁷⁴

An alternative strategy for dealing with China's A₂/AD network as a whole is a blockade. This strategy has been suggested in a variety of venues, but Andrew F. Krepinevich's "The Archipelagic Defense," as described in *Foreign Affairs* in 2014, is the most well-known.⁷⁵ Krepinevich suggested, before the United States pulled out of the INF, that the government do exactly that and fortify the islands of the first island chain with missiles that could threaten mainland China and bottle up its surface fleet inside the island chain without significant risk to U.S. forces. Colonel T. X. Hammes proposed a similar concept called *offshore control*.⁷⁶ These strategies highlight that China receives approximately 80 percent of its imports and 90 percent of its crude oil by sea.⁷⁷

THE FUTURE OF ADVANCED BASES

Advanced bases have been critical to the success of America's military campaigns in the past, and it is likely that they will prove so again. Their utility is not limited to the Pacific theater—the Baltic Sea and increasingly the Black Sea are under the threat of Russian A₂/AD networks while the Caribbean was historically the focus of advanced base operations for the Marine Corps in the early twentieth century.⁷⁸ The Pacific, however, is unique among these theaters for its sheer size and the much longer distances between landmasses. It is both a theater defined by "the tyranny of distance" and home to China, the United States' most capable competitor.⁷⁹ EABO is not adversary agnostic—it is a concept written with a single competitor in mind. No

⁷³ Cuomo et al., "Not Yet Openly at War, But Still Mostly at Peace."

⁷⁴ Douglas King and Brett Friedman, "Why the Navy Needs a Fighting Connector: Distributed Maritime Operations and the Modern Littoral Environment," *War on the Rocks*, 10 November 2017.

⁷⁵ Andrew F. Krepinevich, "How to Deter China: The Case for Archipelagic Defense," *Foreign Affairs*, March/April 2015.

⁷⁶ T. X. Hammes, "Offshore Control: A Proposed Strategy for an Unlikely Conflict," *Strategic Forum*, no. 278 (June 2012).

⁷⁷ *The People's Liberation Army Navy: A Modern Navy with Chinese Characteristics* (Washington, DC: Office of Naval Intelligence, 2009), 11.

⁷⁸ Ruslan Minich, "Russia Shows Its Military Might in the Black Sea and Beyond," *UkraineAlert* (blog), Atlantic Council, 6 November 2018.

⁷⁹ While the expression *the tyranny of distance* likely comes from Geoffrey Blainey's 1966 book by the same title and is widely used in Australia, the term appeared five years prior in the geographic research of American geographer and spatial theorist William W. Bunge.

other nation can threaten U.S. forces in such a unique way or offer the particular set of challenges that the Western Pacific does. Russia does not possess the array of conventional missiles that China does because it, too, was part of the INF Treaty. Russia also has a far less capable surface fleet and shares land borders with U.S. allies and partners. Meanwhile, Iran and North Korea do not come close to offering the type of robust A2/AD networks that threaten U.S. carriers and bases. The final named threat in the 2018 *National Defense Strategy*—violent extremist organizations—have little to no ability to compete with U.S. naval forces.⁸⁰

Advanced bases will continue to change in response to technological developments. They always have been and will continue to be functions of technological limitations imposed either by geography or adversaries. They exist in numbers and at distances proportional to logistical and strike requirements, and these requirements will determine the capabilities that advanced bases will need to host. Advances in power generation, storage, and three-dimensional printing will help shape the advanced bases of the future. In an interview with the *Wall Street Journal*, Commandant Berger was optimistic about how three-dimensional printing can ease the logistics burden on advanced bases.⁸¹

Diplomacy will also set the stage for EABO. The Philippine withdrawal from the U.S. Visiting Forces Agreement is a reminder that allies and partners may not always welcome American forces.⁸² How much materiel can be permanently based forward in places such as Japan and the Philippines? How much materiel can be contracted locally? How much organic security will advanced bases need to operate in friendly territory and how much advanced base support can allies and partners provide?

Defensive requirements will also change in response to the proliferation of unmanned systems and precision missiles. Can an advanced base be protected from attack with antimissile systems or even directed energy systems? The proliferation of unmanned systems of all sizes can also dramatically change the nature of advanced bases by potentially dramatically reducing the number of personnel required to support a base. Unmanned aviation can be used for strike and resupply, underwater unmanned vehicles offer another means of clandestine resupply for advanced bases.⁸³

The future is bright for advanced base operations. They will continue to be critical to success in maritime operations and maritime campaigns. Milan Vego opened his book, *Maritime Strategy and Sea Control*, with the importance of interplay between

⁸⁰ *Summary of the 2018 National Defense Strategy for the United States of America* (Washington, DC: Department of Defense, 2018).

⁸¹ Michael R. Gordon, "Marines Plan to Retool to Meet the China Threat," *Wall Street Journal*, 22 March 2020.

⁸² Joshua Kurlantzick, "Duterte Terminates the Visiting Forces Agreement . . . or Does He?," *AsiaUnbound* (blog), Council on Foreign Relations, 21 February, 2020.

⁸³ Walker D. Mills and Dylan Phillips-Levine, "The Future of Tactical Airlift Is Here and It Is Vertical," *War on the Rocks*, 10 April 2020; and Walker D. Mills, Dylan Phillips-Levine, and Collin Fox, "Cocaine Logistics" for the Marine Corps," *War on the Rocks*, 22 July 2020.

land and sea: “In the modern era, war at sea has not been conducted in isolation from the war on land and in the air.”⁸⁴ Wayne P. Hughes and Robert Girrer, in the most recent edition of the canonical *Fleet Tactics*, assert that “the growth of land-sea tactical interaction” is one of the two “great developments in tactics.”⁸⁵

Time will tell if advanced bases remain viable options for the Marine Corps and exactly what form they will take. Recent commentary has highlighted the choices the Marine Corps must make in the coming years to remain a relevant force in the Western Pacific.⁸⁶ In the 2019 *Commandant’s Planning Guidance*, Commandant Berger declared that the Marine Corps will continue to “develop two concepts, [LOCE] and [EABO] that nest exceptionally well with the current strategic guidance,” and will complement them with “classified, threat-specific operating concepts.”⁸⁷ He also made it clear that his priority as Commandant is force design, which opens the possibility to a significantly reimagined Marine Corps organization during his tenure. The Marine Corps will have to change the way that it staffs, trains, and equips if it wants to truly embrace advanced base operations. It needs to reprioritize ship-to-shore connectors and aggressively pursue sea denial capabilities, such as long-range, antiship fires. It will have to experiment as well and work to incorporate new and emerging technologies such as unmanned systems and autonomy into tactics and operations. This effort requires sacrifices; the Marine Corps will have to evaluate legacy missions and requirements to find the resources for EABO. One thing is clear—there is no organization with as long or successful a history of advanced base operations as the U.S. Marine Corps.

⁸⁴ Milan Vego, *Maritime Strategy and Sea Control: Theory and Practice* (New York: Routledge, 2016), 1.

⁸⁵ Capt Wayne P. Hughes Jr., USN (Ret), RAdm Robert P. Girrier, USN (Ret), *Fleet Tactics and Naval Operations*, 3d ed. (Annapolis, MD: Naval Institute Press, 2018), 122.

⁸⁶ Leo Spaeder, “Sir, Who Am I?: An Open Letter to the Incoming Commandant of the Marine Corps,” *War on the Rocks*, 28 March 2019.

⁸⁷ Berger, *Commandant’s Planning Guidance*, 9.

CONCLUSION

B.A. Friedman and Timothy Heck

The history of amphibious warfare is one of both continuity and change, and the future is likely to be more of the same. The projection of combat power from sea to the shore and beyond remains the nature of amphibious warfare, whether carried out by Achilles's Myrmidons or by unmanned systems. As its character changes, the complexity, difficulty, and potency remain the same. Any nation can produce an army, and most can produce a navy. Getting to the fight is one thing, fighting once on land another, but combining the two is what makes amphibious operations so complex. Few nations can produce the level of military efficiency and capacity necessary to maintain a corps of professionals able to execute this most difficult form of military operations.

While the nature of amphibious warfare has remained constant across centuries, these essays demonstrate the diversity of forms the subject assumes. Part of our goal in producing this volume was to dispel some of the assumptions that have attached themselves to amphibious warfare.

When most people hear the term *amphibious operations*, they think of amphibious assaults and usually only one: Operation Overlord in 1944. While well known, Operation Overlord is not typical. Too many use it as a mental yardstick for the entire discipline. Pronouncements that amphibious warfare is obsolete are tied to this insufficient familiarity with the long history of such operations. Others mentally refer to Gallipoli, Iwo Jima, or Inchon. These are relatively recent examples that, for better or worse, also serve to benchmark the genre.

This volume certainly does not cover the full range of history and examples of amphibious warfare, but we believe it has shed some light on a few instances overshadowed by the famous amphibious assaults of World War II. Across this volume, we have visited amphibious operations from the famous, such as Gallipoli or Tarawa, to the obscure, such as the Soviet landing at Merkūla, which occurred not long after Operation Overlord. Even Overlord provided another opportunity to study the operations of 47 Commando around Port-En-Bessin, France, a relatively unknown operation in the historiography of that famous campaign.

Our authors have looked back to the 1500s, with the amphibious special operations assault on Porto Ercoletto, Italy, and with the development of amphibious doctrine under Molyneux. The intervening centuries also provided numerous successful, and unsuccessful, examples of how planners, strategists, and practitioners sought to use the sea to influence the land. From defensive tactics along the Delaware River during the American War of Independence to withdrawals by German forces during World War II to raids in 1870s Korea, the historical case studies here demonstrate that amphibious operations come in a variety of forms and that all can shine a light on current and future applications.

The authors also looked to the future. Forecasting is always a gamble, especially when it comes to warfare; but it is incumbent on us to make the attempt so that, when the future arrives, we are hopefully not too wrong about it. The advent of precision-guided munitions, unmanned systems, and advanced software applications such as machine learning and artificial intelligence herald both opportunities and threats for amphibious warfare. In this regard, their introduction and weaponization is no different to amphibious operations than it is to other forms of warfare.

The ongoing Information Revolution and pervasive global digital communications will affect warfare as well. The battle for Gallipoli solidified the battle in three nations' lore: Australia, New Zealand, and Turkey. Winston Churchill, as first lord of the admiralty, suffered for it politically, as did the prime minister. The failed assault led some critics to claim amphibious operations were obsolete and prohibitively costly. The resulting operational and tactical doctrine left many militaries unprepared when war broke out in the 1930s. In 1943, pictures and film footage of U.S. Marines crossing the beaches of Tarawa, some dying there, shocked the population of the United States on the home front. In future amphibious operations, they may see such images in real time, rather than well after the fact.

While the full implications of these trends are not yet clear, other trends shift into better focus. Countries like China, Russia, North Korea, Iran, and Venezuela seek to increase their capability to control sea lines of communication in the near abroad, with China far outpacing the others. Russia's invasion of the Ukraine in 2014 was specifically focused on achieving control of Crimea as key maritime terrain and its three shipyards. Due to the interconnected nature of the global economy through maritime shipping, such efforts can only lead to a response by other strategic actors.

As navies focus more on sea control and maritime access, so too will the amphibious forces that work alongside them.

The essays that specifically projected to the future included Keith D. Dickson's look at multidomain operations, Walker D. Mills's examination of advanced base operations, and Shulakshana Komerath's analysis of naval special warfare. They, and others in this contributed volume, put proof to the idea that amphibious operations are not obsolete now, just as they were not in the aftermath of Gallipoli. Regardless of the predictions made by our authors, we remain convinced that the eventual outcome of future amphibious operations will surely look quite different. Yet, these exercises in prognostication are not mere navel-gazing. It is our hope that servicemembers, planners, and policy-makers use such efforts to inform their own plans and decisions as to how best to design maritime forces for the future.

What this edited volume certainly shows is the range of diversity in thought about amphibious operations, along with naval operations, in the field today. By providing a forum for both established scholars and insightful newcomers, we hope to contribute to both academic debates and professional military education during a time of change and uncertainty. Since we began working on this project, both the U.S. Marine Corps and the British Royal Marines initiated major reform efforts that focus (or refocus) the Services on amphibious operations and naval integration. As they and other military organizations attempt to evolve for twenty-first century warfare, it is useful to look both backward and forward for timeless insights and lessons.

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