EVOLUTION -ON- DEMAND

The Changing Roles of the U.S. Marine Corps in Twenty-first Century Conflicts and Beyond

Edited by
Joanna Siekiera, PhD

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Foreword

By Major General Valerie A. Jackson,
USMC

"Think Tank, Do Tank"

More than six years ago, I arrived at Marine Corps University as the new director of the then-named Brute Krulak Center for Innovation and Creativity. With an express mission of standing up a center that would help fulfill the university's accreditation requirements, I set out with a very small team to do just that. The question was, how? What is a center for innovation and creativity supposed to do at the Marine Corps' professional military education (PME), liberal arts-focused university? The short answer: I had no idea. The how was nebulous. Yet, the university hired me to accomplish a mission, and as a Marine, nothing could be more straightforward.

Leveraging my honed leadership skills from the Marine Corps, I gave the team our no-fail mission but then left the how to them. As I hoped and predicted, the how quickly became evident as the brilliance of the team shone through. I have been blessed as the director of this amazing center with supportive leadership at the university, but more importantly, with energetic, intelligent, and

creative teammates. Every year of its existence, the Krulak Center has had different staff members, yet every year, we have had tangible impact on both the university and the greater Marine Corps in our support of students, faculty, force design, predeployment training, wargaming, creative writing, sister-Service PME collaboration, ally and partner support, and meaningful interaction with our community of interest. I know Lieutenant General Victor H. "Brute" Krulak is proud of us!

This book, largely written by our nonresident fellows and conceived by the talented and energetic Dr. Joanna Siekiera, serves as a prime example of how a little center in Quantico, Virginia, can have outsized impact on practical discussions of national security. I'm enormously proud of this book, its authors, and our entire team for this work, manifesting our center's description as a think tank, do tank. Thank you, Dr. Siekiera, for your enormous contribution to the profession of arms. It is my deepest honor to be included in its pages.

Preface

By Rebecca Johnson, PhD

The future battlespace promises to be complex, unpredictable, and multifaceted. This reality requires military professionals to think deeply and innovatively about the evolving character of war and how to gain decisive advantage across a hotly contested global landscape. *Evolution on Demand: The Changing Roles of the U.S. Marine Corps in Twenty-first Century Conflicts and Beyond*, featuring the work of nonresident fellows of the Brute Krulak Center for Innovation and Future Warfare, offers critical insights into the challenges and opportunities that lie ahead. Drawing on a range of perspectives and areas of expertise, these chapters explore the strategic, operational, and technological factors that will shape military conflict in the years to come. This volume highlights the critical value the Krulak Center plays—not only in the intellectual life of Marine Corps University, but in the U.S. Marine Corps as a whole. By harnessing the talent of the center's nonresident fellows to think deeply about the Service's (and nation's) challenges, the Krulak Center continues to provide exceptional value by providing forward-thinking and silo-breaking analysis.

It comes as no surprise for anyone who might pick up this book that the future of war will not resemble the conflicts of the past. Technological advancements, geopolitical shifts, and the increasing interconnectedness of global security concerns are already reshaping how military operations are conceived, planned, and executed. The contributions in this volume underscore the need for militaries, particularly the Marine Corps, to adapt to these changes and remain at the cutting edge of innovation and strategy.

The Krulak Center's mission is to foster creative thinking and problem solving among military leaders and scholars, preparing them for the uncertainties of future conflict. This volume exemplifies that mission by bringing together a diverse group of experts to examine critical aspects of warfare, ranging from logistics and force design to cyberspace operations and wargaming. Each chapter not only provides an in-depth analysis of specific challenges but also offers practical recommendations for how the Marine Corps and its allies can prepare to win the future fight.

One of the central themes that emerges from these chapters is the growing importance of adaptability in modern warfare. As Lieutenant Colonel Leo Spaeder notes in his chapter 1 analysis of force design, the ability to pivot in response to unforeseen circumstances is critical. Spaeder's discussion of a "barbell" force design highlights the tension between specialization and versatility, emphasizing that future conflicts will require a force capable of operating across a wide spectrum of military operations, from amphibious assaults to counterinsurgency and stability operations. This need for flexibility is further explored in Lieutenant Colonel Brian Kerg's examination of the stand-in forces concept, which represents a paradigm shift in how the Marine Corps approaches littoral operations.

Another key theme covered herein is the importance of logistics and sustainment in future warfare. As Dr. Rosella Cappella Zielinski and Dr. Ryan Grauer argue in their chapter on the Burma Campaign, logistics are often the unsung heroes of military suc-

cess. The ability to transport, sustain, and supply forces in the field will be a decisive factor in any future conflict, particularly in coalition operations. The lessons from historical campaigns, such as Burma, serve as a reminder that logistical preparation is essential for effective military cooperation in future wars. The strategic importance of logistics is also echoed in Dr. Sidharth Kaushal's discussion of Marine logistics in Europe, where the ability to project power from the littorals will play a key role in countering Russian military aggression.

In addition to logistics, the technological dimension of future warfare cannot be overlooked. The rapid development of low-cost drones, cruise missiles, and other forms of unmanned systems is transforming the way air warfare is conducted. Dr. Kelly A. Grieco and Colonel Maximilian Bremer highlight the need for the Marine Corps to embrace a strategy of air denial, focused on defending against these emerging threats in the littoral regions. This shift from air superiority to air denial is emblematic of the broader changes that are occurring in military thinking, as adversaries become more adept at leveraging asymmetric capabilities to challenge traditional military power.

This work also addresses the critical role of cyberspace in future conflict. As Dr. Joanna Siekiera and Colonel Arun Shankar point out, the Marine Corps' expertise in cyberspace operations positions it as a role model for other NATO allies and partners. An increasing reliance on cyber capabilities in both offensive and defensive operations will require militaries to develop new strategies and doctrines to counter the growing threat of cyber warfare. In a world where digital infrastructure is as important as physical terrain, the ability to operate effectively in cyberspace will be a decisive factor in future military success.

Finally, this volume emphasizes the importance of hands-on learning through wargaming in preparing for future conflict. As Dr. James Fielder and Mr. Kevin Williamson argue in their respective chapters, wargaming offers a powerful tool for honing the

strategic and operational skills of military leaders. By simulating the complexities of future conflicts, wargames provide invaluable opportunities to test new concepts, develop creative solutions, and prepare for the unexpected. The integration of wargaming into professional military education, as discussed by Williamson, ensures that future leaders are not only intellectually prepared but also capable of making informed decisions in the heat of battle.

Evolution on Demand: The Changing Roles of the U.S. Marine Corps in Twenty-first Century Conflicts and Beyond provides a comprehensive and forward-thinking analysis of the challenges and opportunities that will define the future of military conflict. The insights offered by the contributors to this volume are not only intellectually rigorous but also deeply practical, offering valuable guidance to military leaders and policymakers alike. As we look to the future, innovation, adaptability, and cooperation will be the keys to success in an increasingly complex and uncertain world. This volume is a testament to the importance of thinking creatively and proactively about the future of war, and it serves as an essential resource for those tasked with shaping the next generation of military strategy.

Introduction

By Joanna Siekiera, PhD

In 2025, the U.S. Marine Corps celebrates its 250th anniversary. The aim of this monograph was to gather the unique expertise and diverse knowledge of the Brute Krulak Center of Innovation and Future Warfare's 2023–25 cohort of fellows and commit it into a lasting legacy. These fellows specialize in different "climes and places" around the globe, understand multidomain operations of modern warfighting, and have extensive firsthand experience.[1] The service of these fellows, reinforced by the values of the Krulak Center and the enduring legacy of the Marine Corps, will inform industry and warfighting professionals for years to come.

The Marine Corps has continuously evolved throughout its 250-year history to adapt to the changing demands of modern and future conflict environments. This research group, a collaborative effort among Krulak Center fellows, active duty commissioned officers, and professors from fields such as security, legal studies, and naval science, works with Marine Corps University

[1] "Any clime and place" is an ethos highlighted in the "Marines' Hymn" and ingrained within individual Marines. It is a historically proven message that U.S. Marines are prepared to fight and win in any climate, at any time, or in any location around the globe.

to explore these adaptations. The Marine Corps remains highly relevant within various contemporary and future conflicts. Its evolution over two centuries has ensured its readiness to operate in diverse geolocations and across multiple domains, maintaining its strategic importance in the twenty-first century. Through a blend of academic, legal, and national security perspectives, the research group has consistently affirmed the Marine Corps' critical role in addressing regional conflicts, global confrontations, and competition in the information environment. Incorporating cultural insights from their respective nations—the United States, Philippines, United Kingdom, and Poland—the authors provide a comprehensive view of the Marine Corps' ongoing relevance and adaptation.

Through 13 chapters, the research team analyzes and answers the following research questions:

- Is the Marine Corps a crisis response force?
- Is the Marine Corps an expeditionary force in readiness with an aging amphibious fleet?
- Is the Marine Corps too focused on the U.S. Indo-Pacific Command to the detriment of "any clime and place"?
- Should the Marine Corps avoid protracted land wars and allow the U.S. Army to manage these conflicts?
- Does the Marine Corps inspire the other Service branches? Other allied or partner forces?
- Is the Marine Corps a role model?

The research contained herein demonstrates that the Marine Corps is a dynamic and highly relevant institution throughout a wide spectrum of military operations. It retains exceptional potential to address challenges both in the present and in the face of future uncertainties. The research team brings together perspectives from formally educated civilians, experienced military officers, and individuals with federal interagency experience, reflecting a

comprehensive whole-of-government approach. All members of the research team have either served in the Marine Corps, closely worked with it, or supported national efforts across strategic, operational, and tactical levels of warfare.

The target audience for this book is extensive. No single element of a nation's power can solve a complex problem like warfare in the modern era. We need diplomats, a professional commissioned and noncommissioned officer corps, a robust economy, and a unified voice to align our expert teams as they go forward in the modern operating environment. These professional warfighting experts are not unique to the Marine Corps. Through a vast network of industry experts in the Department of Defense and our esteemed colleagues in the North Atlantic Treaty Organization (NATO), this book presents a straightforward yet proven approach to planning, executing, and evaluating the relevance of the Marine Corps.

Many people helped me in preparing this book. I express deep gratitude to those who supported me during this intriguing and unforgettable journey: Lieutenant General Valerie Jackson, director of the Krulak Center, for believing and empowering me by supporting this project; Major Ian "J. Lo" Brown (Ret), former operations officer at the Krulak Center Fellows, for being an inspirational leader for the team; Major Nate "Kiwi" Jaenichen, current operations officer, for helping me with this dream project; Lieutenant Colonel Kurtis Kjobech, director of operations at Marine Corps University, for introducing me to the Marine Corps, an adventure for which I will be forever grateful; and Colonel Joseph Garaux, former director of training for NATO's Joint Force Training Centre in Poland, for being an inspiration for the theme of this book.

Dear readers, I present to you a book that is a unique international, interdisciplinary, and multidomain focused work, honoring both current and former Marines as well as those who will serve in the future. The role of the Marine Corps in warfighting is both battle-tested and world renowned. Throughout its long his-

tory, Marines have consistently demonstrated their worth and resilience. As we look to the future, the Marine Corps will continue to rise to any challenge. May this book serve as both an inspiration and a testament to their enduring legacy.

Semper Fidelis!

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Chapter
I

Keeping the Gains

A Barbell Force Design for the Twenty-first Century Marine Corps

By Lieutenant Colonel Leo Spaeder, USMC

Introduction

There's an age-old maxim around physical fitness that "staying in shape is much easier than getting in shape." Marines say or hear this at least twice a year, typically around the time for semiannual fitness tests. The bottom line is this: after making hard-earned gains in the gym, on the trails or track, or in the pool, maintain those gains and only give them up grudgingly. This mantra applies as much to states and their militaries as to the individual athlete. One does not become king of the hill—the international system, in the case of the United States—to run down to the bottom and start the uphill slog anew.

While the United States' relative power has receded with the rise of the People's Republic of China (PRC) and the diffusion of previously exquisite capabilities to near- and non-peer competitors, such as the Russian Federation, Islamic Republic of Iran, Democratic People's Republic of Korea (DPRK), Ansar Allah's Yemen, and other nonstate actors, the United States remains the leader of the post–World War II rules-based international order and the global military hegemon capable of projecting its combat power in ways to

which other great powers, mainly the PRC, aspire.[1] From now and into the foreseeable future, the United States will seek to maintain these achievements—gains hard-earned over decades of diplomacy and investment in blood, treasure, time, and talent from World War II through the Cold War and Global War on Terrorism—by denying the PRC and other challengers opportunities to erode U.S. advantage.[2] With these negative aims in mind, the Marine Corps of the twenty-first century must continue to develop ways and means to provide national leaders options to achieve these ends; this will require a significant deviation from previous force design paradigms that favor positive national aims and accompanying offensive, expeditionary operations. As flat-to-declining real military spending trends continue, the Marine Corps faces tough choices into which capabilities to invest its budget and finite training time.[3] In an era of negative national aims, the Marine Corps of the future should be designed around a barbell strategy, focusing on defensive and crisis response operations while accepting risk with more limited capabilities and capacities in offensive expeditionary operations. Through this force design strategy, the Marine Corps can provide the optimal return on investment to keep the U.S. military's hard-earned gains and best fulfill its statutory mandate.

(Likely) Future National Policy and Adversary Intentions

Brian Farrell, the author of *The Defence and Fall of Singapore*, asked three major questions related to circumstances, intentions, and

[1] David Brown, "Why China Could Win the New Global Arms Race," BBC News, 28 July 2022; Benjamin Wittes and Gabriella Blum, *The Future of Violence: Robots and Germs, Hackers and Drones—Confronting a New Age of Threat* (New York: Basic Books, 2015), ch. 1; and Maj Loyal Auterson, "Looking Back at the Command's Historic Effort That Moved 124K to Safety," U.S. Transportation Command, 25 August 2022. Ansar Allah is the official name of the Houthi movement.

[2] Elbridge A. Colby, *The Strategy of Denial: American Defense in an Age of Great Power Competition* (New Haven, CT: Yale University Press, 2021), ch. 8.

[3] Bryant Harris, "A Nearly $1 Trillion Defense Budget Faces Headwinds at Home and Abroad," *DefenseNews*, 3 July 2024.

capabilities that will assist in determining what the future roles of the twenty-first century Marine Corps may be: 1) What is the best way to relate diplomacy and defense policy to each other? 2) What is the most dangerous threat and the best strategy to meet it? 3) What must be done to make sure that the best strategy can be applied if the need arises?[4] If these are not answered correctly, then the future Marine Corps may face the same issue that the doomed defenders of Singapore experienced: they tried to make the situation fit the plan rather than planning to the situation.

As for circumstances, the current assessment of a contested international system being undermined by revisionist powers as the greatest threat to its interests seems likely to hold deep into the twenty-first century.[5] At the very least, it seems unlikely that the United States will experience another unipolar moment despite significant concerns about the Chinese Communist Party's (CCP) long-term viability. Unlike its Soviet predecessors, the CCP's deliberate integration of the PRC within the international economy and its more rational domestic economic system make it an unlikely candidate for a catastrophic fall from international influence observed at the end of the Cold War.[6] Similar to the Soviet Union-to-Russian Federation transition, it is also a dangerous assumption that a CCP-less PRC may be any more friendly to the United States and its allies based on its nationalistic worldview instilled through generations of Chinese citizens.[7] Reviewing U.S. domestic politics, after 20 years of the Global War on Terrorism and its inconclusive-to-outright-negative outcomes as the American people perceive that era of preemptive war and spreading democracy, it seems un-

[4] Brian Farrell, *The Defence and Fall of Singapore* (Melton Mowbray, UK: Monsoon Books, 2015), 22.
[5] *Summary of the 2018 National Defense Strategy of the United States of America: Sharpening the American Military's Competitive Edge* (Washington, DC: Office of the Secretary of Defense, U.S. Department of Defense, 2018).
[6] Gita Gopinath, "Cold War II? Preserving Economic Cooperation Amid Geoeconomic Fragmentation" (speech, 20th World Congress of the International Economic Association, Medellin, Colombia, 11 December 2023).
[7] Jayshree Bajoria, "Nationalism in China," Council on Foreign Relations, 22 April 2008.

likely that the United States will voluntarily seek out dragons to slay overseas.[8] Finally, from the budget facet of circumstances, it seems likely that Congress will keep defense budgets flat to lower in purchasing power due to rising budget deficits and increased entitlement costs, eroding discretionary spending on items like the Marine Corps and Department of Defense (DOD) at large.[9]

With those circumstances in mind and returning to Farrell's first question—the best way to relate diplomacy and defense policy to each other—the best diplomatic/defense relationship is deterrence and reinforcement of the rules-based international order. The military element would execute deterrence by denial with key allies and partners globally, while the diplomatic concurrently contributes to deterrence through threats of punishment, to include economic sanctions, isolation from beneficial elements of the international system, and confiscation of overseas assets, and it reinforces the rules-based order by dividing revisionist powers to reduce malign coordination and diminishing their influence with Europe and the Global South.

Addressing the second question—the most dangerous threat and the best strategy to meet it—it seems likely that the currently identified revisionist states (the PRC, Russian Federation, Iran, and the DPRK) will continue to be the greatest threat to U.S. interests. Specifically, the PRC's primary threat toward Taiwan and its advanced semiconductor industry and, secondarily, encroachment on the territorial sovereignty of the Philippines, Japan, and other Southeast Asian states to undermine U.S. regional credibility likely remains the leading U.S. challenge. Much like contemporary basing of U.S. forces in South Korea and the Cold War's Berlin Brigade and West German posture, the forward stationing

[8] Edward Luce, "The Return of American Isolationism," *Financial Times*, 4 October 2023; Carroll Doherty and Jocelyn Kiley, "A Look Back at How Fear and False Beliefs Bolstered U.S. Public Support for War in Iraq," Pew Research Center, 14 March 2023; and Katherine Schaeffer, "A Year Later, a Look Back at Public Opinion about the U.S. Military Exit from Afghanistan," Pew Research Center, 17 August 2022.
[9] Harris, "A Nearly $1 Trillion Defense Budget Faces Headwinds at Home and Abroad."

of credible military forces in threatened areas is likely to be the Marine Corps' most effective strategy to execute deterrence by denial.[10] Fast-response from the continental United States, similar to the Reinforce Germany (REFORGER) series, may not be fast enough to meet the PRC's, DPRK's, or Russia's tempo toward their targeted victim. Ultimately, the Marine Corps' best future strategy is to deny the adversary operational initiative as the PRC, Russia, or DPRK seek to upset the territorial status quo.

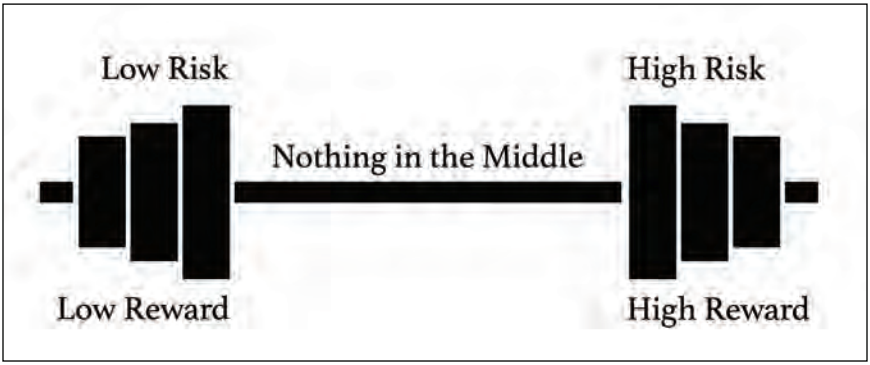
Barbell Strategy: A Risk Management Framework Adapted for Military Force Design

To answer the third question (What must be done to make sure that the best strategy can be applied if the need arises?), we need to look beyond military theory and explore portfolio risk management.

The barbell strategy is ultimately a risk management framework that provides downside protection from the risk of loss, while allowing for investors to realize gains on very risky yet potentially lucrative investments. Popularized by Nassim Nicholas Taleb in his book *The Black Swan: The Impact of the Highly Improbable*, his barbell investment strategy demonstrates how he is not uniformly diversified across different asset classes; instead, he focuses only on the low- and high-risk assets, as what traditionalists consider moderately risky assets represent more risk relative to the potential return based on historic market dynamics. On the risk-averse end of the bar, he is heavily invested in cash, U.S. Treasury securities, and other "boring" investment vehicles that will not make you money but will maintain those assets. On the other end of the bar, he loads investment weight into seemingly wildly risky investments: options for black swan events (i.e., a global pandemic destroying the travel industry, collapse of U.S. housing market, etc.), start-ups with potentially huge upsides (i.e., early venture capital

[10] 2dLt Hunter Keeley, "Berlin Brigade to Taipei Tripwire: A Moral Imperative," U.S. Naval Institute *Proceedings* 149, no. 10 (October 2023).

Figure 1. Risk bar



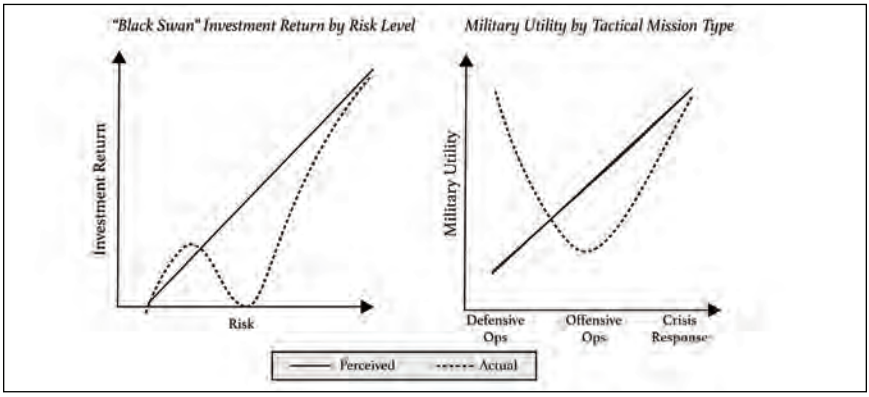
Note: The barbell strategy for risk management, devised for financial investments, suggests investing only in low-risk/low-reward assets and high-risk/high-reward assets, avoiding middle-road assets, as the best means for balancing risk. This strategy can be adapted for military force design.
Source: courtesy of the author, adapted by MCUP.

rounds of Google, Netflix, OpenAI, etc.), and other investment vehicles that will either hit big or go to zero.

The controversial part of this strategy is what is omitted: the perceived moderately risky middle. These are the investments in which many asset managers and normal people invest, such as retail stocks purchased on the public markets, real estate, and other assets that appear to provide moderate return for relatively moderate risk. Taleb argues that the history of black swans demonstrates that investing in the middle is a riskier strategy than focusing on the extreme asset classes. As depicted on the left in figure 2, the issue he highlights derives from the nonlinearity of the real world. Instead of a clean line where returns match risk, Taleb argues that moderately risky investments are subject to total loss when faced with black swan events. War is the ultimate black swan event that destroys the moderate, and battle is by its very nature nonlinear.[11]

[11] Nassim Nicholas Taleb, *The Black Swan: The Impact of the Highly Improbable* (New York: Random House, 2007).

Figure 2. Perceived versus actual utility



Note: The Black Swan chart represents the narrative description provided by Taleb in his book. For the military utility graphic, the author created the "perceived" line based on personal experiences during 18 years of Marine Corps service. This includes: 1) references to these three bins of operations in Marine Corps doctrine and publications, professional military education (e.g., Expeditionary Warfare School), and Service-level documents (e.g., *Commandant's Planning Guidance*); 2) training time expended on various operations at home station and Service-level training exercises; 3) resourcing decisions for the Marine expeditionary units and Special Purpose MAGTF-Crisis Response versus other competing global force management requirements; and 4) communications of the Marine Corps value proposition to Congress, geographic combatant commanders, etc. The "actual" line represents the author's thesis.
Source: courtesy of the author, adapted by MCUP.

This mismatch between perceived and actual utility exists within current Marine Corps thinking and doctrine as compared to the terrain denial-focused military aims described earlier. For example, in the chapter on defensive operations in *Marine Corps Operations*, Marine Corps Doctrinal Publication (MCDP) 1-0, there are numerous quotes and passages describing how the purpose of the defense is to transition to the offense and warns readers that "while the defense can deny victory to the enemy, it rarely results in victory for the defender."[12] While this may be true in most cases, it myopically retains focus on the tactical level and falsely as well as implicitly assumes the Marine Corps is transitioning from

[12] *Marine Corps Operations*, Marine Corps Doctrinal Publication 1-0 (Washington, DC: Headquarters Marine Corps, 2011), 8-1.

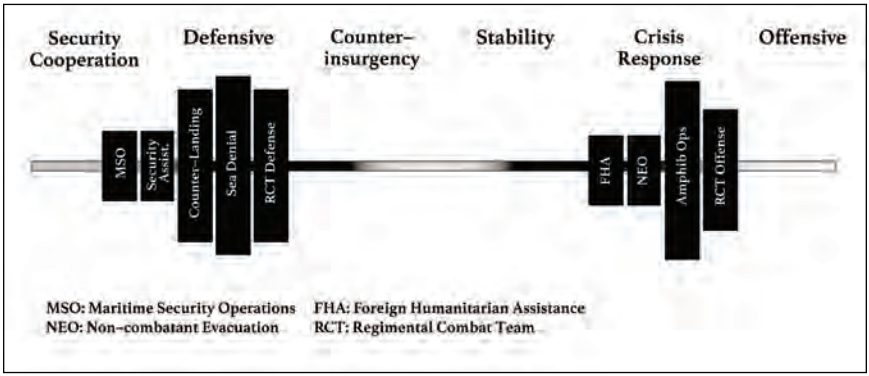
defense to offense: it does not recognize a Fleet Marine Force providing a tactical-level defensive framework for the Navy and other Joint forces to transition into an operational-level offensive. Furthermore, the Marine Corps does not recognize amphibious defense as a type of amphibious operation nor does it have a counterlanding doctrine, again demonstrating the low utility it places on the defense relative to other missions. Meanwhile, the answer to question two—the Marine Corps' best future strategy is to deny the adversary operational initiative—places maximum value to defensive operations. Both the Service's current doctrine and future strategy value crisis response operations to regain U.S. initiative and compete against powers with regional and global ambitions by providing U.S. diplomats capability to build trust and confidence in the rules-based international order and American values.

The major paradigm shift for the Marine Corps would be the lower value this model places on offensive operations. This strategy would reduce the Service's capability to conduct the island hopping campaign of World War II, the search and destroy missions of Vietnam, the liberation of Kuwait, or the march to Baghdad during Operation Iraqi Freedom, but it would provide relevant capabilities that policy makers and combatant commanders require for the twenty-first century. While this reduction fits the projected circumstances and intentions, those are only prognostications and represent risk if the world does not cooperate.

Loading the Bar: Defensive and Crisis Response Options

Reviewing *Marine Corps Operations*, there are a number of operations that make up the Marine Corps' potential barbell. These include security cooperation, stability, counterinsurgency, defensive,

Figure 3. Range of potential operations



Note: The barbell strategy as it should be adapted by the Marine Corps to better posture for the twenty-first century. Instead of equally spreading resources across the range of potential operations for "balanced readiness," the Marine Corps should focus its resources around defensive and crisis response options and modestly invest in offensive operations and security cooperation activities that assist other states' defensive capabilities.
Source: courtesy of the author, adapted by MCUP.

offensive, and crisis response/limited contingency operations.[13] To fit the circumstances, intentions, and capabilities of the twenty-first century, the Service should focus its efforts and resources toward defensive, crisis response/limited contingency, offensive, and security cooperation (in that priority order).

As depicted above, the left side of the bar is focused on the explicit denial of the adversary's revisionist objectives by providing both direct and indirect ways and means through Marine forces and allies and partners, respectively. In the direct category, the Marine Corps would focus on sea denial capabilities to assist the naval campaign by providing depth to the maritime campaign and extending the eyes, ears, fists, and feet of the Fleet and the rest of the Joint Force from the landward portion of the littoral. This would require the development of many Marine littoral regiment-like platforms such as swarming

[13] *Marine Corps Operations*, ch. 4–13. This list is not exhaustive of those listed in *Marine Corps Operations*; it lists those operations that may be assigned as distinct missions, while operations such as reconnaissance, security, and sustainment exist in all military operations.

unmanned aerial vehicles and surface vessels, coastal defense and long-range antiship strike missiles, and sensors operating from the subsurface, surface, air, and electromagnetic spectrums. As another direct element of the maritime defense-in-depth and anchoring on the revisionist adversary's objective, the Service should develop a counterlanding capability to refuse the adversary in the landing beaches and zones. Applicable to counterlanding operations but focused more on sustained defensive operations on shore, the Marine Corps should train to regimental combat team (RCT) defensive operations; this will require the development of a counterlanding doctrine and procurement of mission-specific equipment. Applicable to global service, this capability would provide a proven combined arms capability with a mass, enabling capabilities, and command structure sufficient to serve anywhere from Taipei to Trondheim.

Modest capability investment in security cooperation operations will pay outsized results when paired with these defensive capabilities. Leveraging beyond the Marine Corps' budget and resources, the training of host-nation forces in denial activities within the umbrella of security assistance will allow for the expansion of the sea denial and counterlanding capacity. Training those states at risk of revisionism or revanchism, such as South China Sea claimants vis-à-vis the PRC, fits well within the deterrence policy and competitive environment postulated earlier; a figurative 5-pound plate delivers an additional 45 pounds of force, to keep with the barbell analogy. As the final piece, maritime security operations are an essential capability for the Marine Corps to develop as human terrain exists everywhere and there are gaps to fill and opportunities to exploit. In terms of gaps, the U.S. Navy divested of its Maritime Civil Affairs and Security Training Command in 2014 with the end of the Global War on Terrorism.[14] On the other hand, while primarily focused on the United States' ter-

[14] PO2 Matthew Daniels, "Navy Disestablishes MCAST," Marine Civil Affairs and Security Training Command, via Defense Visual Information Distribution Service, 16 May 2014.

ritorial waters and inland waterways, the U.S. Coast Guard has a limited presence overseas that can be exponentially supported by accompanying Marine Corps forces.[15]

On the other side of the barbell, there is less weight, as the Marine Corps' attention must be on denial strategy projected. This heavily relies on the five amphibious operations missions (assault, raid, withdrawal, support to other operations, and demonstration) as well as the seabase to conduct others, particularly noncombatant evacuation operations. Heavy emphasis on the amphibiousness of the Marine Corps is essential as this mission set retains the Service's naval heritage and provides a capability to the Joint Force that the U.S. Army cannot easily field and replicate. Overall, the focus of this side of the bar is to regain the initiative and retain options for senior civilian and military leaders. This new conception still accounts for some traditional ground combat approaches but concentrates those operations to the regimental level, because other Joint headquarters can employ Marine regiments effectively without investing the Service's valuable time and personnel, and battalions are too small to effectively enjoy the diverse "combat team" attachments that make a huge difference to the outcome. Finally, foreign humanitarian assistance will assist the diplomatic and information elements of national power by serving as a force for good and highlighting the difference between the CCP's exploitative approach to many states with the United States' benevolence.

Overall, this is not a balanced barbell. More of the organizational weight exists on the defensive operations side, to highlight the potential circumstances and intentions of the future and its agents, as those capabilities present as worthy capabilities for the world imagined.

[15] Capt Benjamin Yoder, "Deepening Partnership: Marines Deploy Aboard US Coast Guard Cutter Stone," News, Marines.mil, 5 May 2023.

Fighting History with This New Paradigm

While history does not repeat itself, it certainly rhymes and we must review how these potential skills (and the absence of others) affect the Joint Force. During the opening of World War II, a more concerted focus on the defense would have fit perfectly to the circumstances and intentions U.S. personnel faced in the Philippines, Wake Island, Singapore, and other locales assaulted by the Imperial Japanese Army and Navy—if particular emphasis had been emplaced on it during the interwar period (in which the United States again finds itself today).

While the Marine Corps did field defense battalions and the garrison at Wake Island repulsed the initial landing force and disrupted the timing of the operational-level Japanese onslaught, it cannot be argued in good faith that the same level of energy, innovation, or resourcing was placed against this formation and defensive mission as compared to its offensive complement, large-scale amphibious operations. The Marine Corps' development of amphibious doctrine and equipment is well-documented across numerous books and periodicals, including *First to Fight*—a book that all Marines have been required to read for more than a decade that describes the innovation that laid the groundwork for the offensive Pacific island-hopping campaign of World War II as well as landings in Africa and Europe.[16] Less read is literature related to the defense battalions, such as Charles D. Melson's *Condition Red: Marine Defense Battalions in World War II* and David J. Ulbrich's *Thomas Holcomb and the Advent of the Marine Corps Defense Battalion, 1936–1941*. Ulbrich laments,

> The seminal work on the Marine Corps history is Allan R. Millett's *Semper Fidelis: The History of the United States Marine Corps*. . . . While displaying meticulous research and groundbreaking analysis,

[16] LtGen Victor H. Krulak, *First to Fight: An Inside View of the U.S. Marine Corps* (Annapolis, MD: Naval Institute Press, 1984).

> Millett largely relegates base defense to secondary status in favor of amphibious assault. . . . Advanced base defense and its culmination in the defense battalion are given cursory coverage. The Corps' amphibious assault role monopolizes Millett's space from the 1920s until after the Japanese attack on Pearl Harbor.[17]

This secondary status is supported by historical fact as defense battalions were provided a limited staff appreciation (compared to whole academic years of Marine Corps Schools class for amphibious operations), a small fraction of the Marine Corps (20 percent of the Fleet Marine Force and 8 percent of the total Service structure in November 1941), mostly improvised and not rigorously tested and refined, and underequipped, with key capabilities either missing or represented by antiquated equipment.[18]

What if advanced base defense theory as outlined by Captain Dion Williams in 1907 or then-major Earl Hancock "Pete" Ellis in 1921 (in the same work that advocated for offensive amphibious operations) had been the main takeaway, paired with the strategic adversary accurately prognosticated in War Plan Orange in the 1920s, and matched with the effort of tentative manuals and doctrine, equipment development, and refinement at wargames, Fleet Battle Problem IV, and annual fleet landing exercises?[19] There is a very high probability that the challenges experienced at Wake

[17] David J. Ulbrich, *Thomas Holcomb and the Advent of the Marine Corps Defense Battalion, 1936–1941* (Quantico, VA: History and Museums Division, Marine Corps University, 2004), v.
[18] Charles D. Melson, *Condition Red: Marine Defense Battalions in World War II*, Marines in World War II Commemorative Series (Washington, DC: History and Museums Division, Headquarters Marine Corps, 1996); and Ulbrich, *Thomas Holcomb and the Advent of the Marine Corps Defense Battalion, 1936–1941*, 46.
[19] 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 (New York: Cambridge University Press, 1996), 50–95.

Island and Midway—the two locations the defense battalions saw major action—could have been identified and mitigated: the improvised task organization of the 1st Defense Battalion (across Wake, Johnston, and Palmyra Islands), the lack of fire control radar or sound-ranging equipment at Wake that could have been decisive, additional prepared defenses and hardened infrastructure at both locations against Japanese shelling and air attacks, additional and integrated Marine Aviation, and infantry in sufficient quantities (which was held in reserve to build large-scale, opposed landing forces) to repel more than small raiding forces.[20] Would this have served as sufficient deterrent to prevent the Imperial Japanese government from going to war? Likely not. But may it have either limited the scope of the calamity the United States faced at the outset of the war, given Guam a fighting chance instead of being written off as undefendable, or directed Japanese aggression elsewhere?[21] Very likely, yes. As much as the Marine Corps credits itself with preparing the Army for its multitheater opposed amphibious assaults through doctrinal development and joint Army-Navy landing exercises, focus on this defensive problem set and inter-Service mentorship could have likely delayed—almost definitely not prevented—the fall of the Philippines and further impeded the incredible opening gains of the Imperial Japanese Army and Navy.[22] If staying in shape is better than getting into shape, retention of these advanced base possessions could have saved countless American lives and preserved combat power to later project against Japanese possession instead of the later cannibalization of the defense battalions to fulfill the six Marine divisions.[23]

Fast-forward to the Korean War and Operation Desert Shield, and this shift to the defensive paradigm would have provided a key asset to the Joint Force commander to have Marine regiments

[20] Melson, *Condition Red*, 6–8.
[21] Melson, *Condition Red*, 2.
[22] Millett, "Assault from the Sea," 73–78.
[23] Melson, *Condition Red*, 22–23.

focused on and specially trained for regimental or brigade-level defensive operations at the outset of the war. While the tyranny of distance steaming to Korea provided temporal space for shipboard preparation for their upcoming mission, the 1st Provisional Marine Brigade would have closed the theater with a full wartime strength and much faster thanks to investments in the Maritime Prepositioned Force and modern cargo aircraft due to today's relatively robust funding levels than the post–World War II Marine Corps. Assuming the brigade arrived much sooner in the conflict, serving as the modern Task Force Smith, a unit well-trained in the defense and deliberate fighting withdrawals would have provided United Nations' forces more breathing room and retained options to regain the initiative without risky end-around opposed amphibious assaults.[24]

The Korean case is very similar to the first Gulf War: the United States was looking for forces to immediately deploy to the Kingdom of Saudi Arabia to set up a defense during Desert Shield. The 1st Marine Division deployed to Saudia Arabia and initially established a fixed defense along the famed "Cement Factory" defensive line before setting up a mobile defense three months later.[25] However, the offensive-minded Marine Corps had no exercise in which to evaluate multiple RCTs in the fixed or the mobile defense in its Combined Arms Exercise, which evolved into Enhanced Mojave Viper and Integrated Training Exercise and uses many of the same ranges, which made it essential to run mobile defense rehearsals.[26] If the Iraqi Army had immediately attacked, 1st Marine Division would not have been as prepared as it could have been to ensure the continued reception, staging, onward movement, and integration of the decisive

[24] T. R. Fehrenbach, *This Kind of War: The Classic Korean War History* (Lawrence, NE: Potomac Books, 2001), 161–63.
[25] LtCol Charles H. Cureton, USMCR, *U.S. Marines in the Persian Gulf, 1990–1991: With the 1st Marine Division in Desert Shield and Desert Storm* (Washington, DC: History and Museums Division, Headquarters Marine Corps, 1993), 21–24.
[26] Cureton, *U.S. Marines in the Persian Gulf, 1990–1991*, 24.

land and air forces required to decimate Saddam Hussein's military in Operation Desert Storm. A focus on the defense would be across all DOTMLPF-P pillars, to include new training facilities and exercises that would allow for large-scale defense operations ranging from the fixed defense to the fighting withdrawal/delay.[27]

Reviewing the 2022 Russian invasion of Ukraine, there was a significant lead-up to the war in which President Joseph R. Biden's administration had accurate intelligence on the time and locations for the Russian offensive. If the U.S. government had decided to deploy rapid response forces, how prepared would Marine forces have been to conduct fixed and mobile defense in the World War I redux of Ukrainian trench systems with the likely restriction of transitioning to offensive operations beyond the Ukrainian border, as is our current philosophical and doctrinal presence? A focus on the defensive would allow for modern doctrinal development based on Russian-Ukrainian experiences similar to Ellis's observation of Japanese operation in the early twentieth century and begin a renaissance of development, experimentation, analysis, refinement, and implementation in this new U.S. interwar period instead of rediscovering trench warfare through Marine bloodletting.

The Vietnam War serves as a stark display with the removal of counterinsurgency capabilities and training across the Marine Corps. There would still have been capacity to conduct conventional operations (seek and destroy). However, just as the Marine Corps' inventory was too low to maintain the Global War on Terrorism counterinsurgency force requirements without expansion to 202,000 Marines and significant Reserve component mobilizations, this defensive/crisis response construct would not have provided enough trained forces in offensive operations to maintain.

As the focus on amphibious operations proposed is similar to recent historical precedent—with a focus on Marine expedition-

[27] DOTMLPF-P stands for doctrine, organization, training, material, leadership and education, personnel, facilities, and policy and is how the U.S. military analyzes new capability proposals to ensure a holistic understanding from critical stakeholders.

ary unit-level operations and mere lip-service paid to brigade-level forced entry operations—the Corps would still be able to deliver Marines across or over the beach similar to operations in Grenada, Nicaragua, and Syria, providing senior decisionmakers options ranging from offensive amphibious operations, noncombatant evacuation operations, and humanitarian assistance/disaster relief.[28]

Conclusions

There are two main counterarguments that present themselves as risk. First, if our assessment of the circumstances, intentions, and required capabilities is incorrect, the Marine Corps will be very (and incorrectly) specialized across the range of military operations. This critique is fair, as we rarely correctly predict the next conflict; however, it can be mitigated by reviewing the entire Joint Force design. To mitigate risk in the areas of counterinsurgency, stability, security cooperation, and offensive operations, the Marine Corps must advocate for a U.S. Army design that will fulfill these requirements, as it currently does today. With heavy armored and Stryker brigade combat teams and transition to division-centric fights, the Army provides the breadth and depth from security force assistance brigades to numerous infantry battalions. This same logic holds true for the other Services and their respective domains.

There is also the element of time that needs to be considered. Even if the circumstances, intentions, and capabilities are correct in the outset of a conflict with the PRC, it is unlikely that any conflict will be a short, sharp one that does not require a reassessment of Services' force designs and expansion to meet the unquestion-

[28] Megan Eckstein, "Bold Alligator 17 Exercise Scaled Down Due to Ongoing Humanitarian Assistance Mission in Puerto Rico," *USNI News*, 13 October 2017. A search of Marine Corps social media, the Defense Video Information Distribution System (DVIDS), and major periodicals such as *Marine Corps Gazette* and U.S. Naval Institute's *Proceedings* provide no indication of a Marine Expeditionary Brigade (MEB)/Expeditionary Strike Group (ESG) integrated exercise focused on large-scale, forced-entry amphibious exercises.

able threat. Even if successful of repelling a Chinese invasion, the Marine Corps will have to rapidly expand to prepare for the next phase of circumstance, intention, and required capability just as it did immediately after the Pearl Harbor attack.

The second major critique is that this construct cedes too much agency to the other Services. For example, the focus on RCT-level operations could result in the allocation of those units to be fought by Army divisions rather than Marine divisions. This is simply institutional paranoia that holds the Service back from investing in more important mission sets. The one element that does hold credible concern is the reliance on the Navy that this construct creates. As current trends on shipbuilding and maintenance are likely to continue for decades, this construct—especially the large emphasis on amphibious operations—may be foolhardy when there are no ships from which to operate.[29]

While those counterarguments must be considered, the fact remains that the Marine Corps' "do it all" attitude from the Global War on Terrorism era and investing across too many mission categories risks the downside of the black swan of war. After earning the United States' role at the top of the global order, the Marine Corps cannot risk the nation's security by trying to be everything to everyone. If advanced semiconductors are the twenty-first century's oil and the PRC continues to look menacingly at Taiwan for both practical and nationalistic reasons (just as the Empire of Japan did for the oil, rubber, and essential resources of Southeast Asia and the South Pacific), then the War Plan Orange for today's and tomorrow's Marines seems clear. Integrating seaward-focused capabilities to project an active defense around critical terrain to interdict adversary maneuver prior to landing with defensive-minded RCTs to conduct counterlanding or frontier defense operations at the outset of a conflict offers the Joint Force the missing resource—time—in

[29] Caitlyn Burchett, " 'Pattern of Unpreparedness': Breakdown of Third Wasp-class Warship Sends Message of Questionable Readiness, Analysts Say," *Stars and Stripes*, 16 September 2024.

which to mobilize and project war-winning forces from the Navy, Army, Air Force, and Space Force. This remains true in the defense of other allies and partners from the Republic of Korea, North Atlantic Treaty Organization states that share a border with Russia, and to partners in the Middle East.

By breaking out from its offensive-minded paradigm and loading the barbell in a disciplined approach that matches the probable national strategy as dictated by geopolitical, domestic political, and budgetary circumstances; understanding adversary intentions and theory of victory; and designing a disciplined set of capabilities that fulfill the United States' national strategy and obviates the adversary's, the Marine Corps can do its part to keep the gains that previous generations of Americans fought for on battlefields around the globe.

Chapter
2

The Marine Expeditionary Force Is the Marine Corps' Stand-in Force

The Future of Corps-level Warfighting in the Littorals

By Lieutenant Colonel Brian Kerg, USMC

Introduction

Stand-in forces (SIF) are manned, trained, equipped, and deployed within the littorals to operate and fight within an enemy's weapons engagement zone. Through a variety of means, they persist forward despite the enemy's relative overmatch in precision fires. SIF are employed in the littorals next to any threat, whether China, Russia, Iran, or others.[1] Still, the preponderance of SIF literature within the United States focuses on employing such forces against America's pacing threat, the Chinese Communist Party (CCP).

As the originator of *A Concept for Stand-in Forces*, and given its direction to focus on fighting the CCP in the *2022 National Defense Strategy*, the U.S. Marine Corps remains at the center of SIF discourse.[2] Much attention remains focused on the Marine littoral regiment (MLR), a new formation optimized to provide sea denial

[1] *A Concept for Stand-in Forces* (Washington, DC: Headquarters Marine Corps, 2021), 4.
[2] Cmdt Gen David H. Berger, "A Concept for Stand-in Forces," U.S. Naval Institute *Proceedings* 147, no. 11 (November 2021).

to support the SIF.[3] At the time of this writing, two MLRs are stationed within the Pacific, providing sea denial capability to U.S. commanders.[4]

However, the MLR is but a single element within a larger network of forces needed to field and sustain a viable SIF. More to the point, the MLR is not, and cannot, be the SIF. Rather, this task requires a corps-level formation with combined arms and organic ground, air, logistics, and information forces to serve as a Marine Corps contribution to the SIF. Within the context of deterring and fighting the CCP, that formation is III Marine Expeditionary Force (III MEF). By understanding how III MEF is organized and postured to fight within the first island chain, the future of SIF warfighting can be understood, both within the first island chain, and within the littorals around the world.

This chapter discusses III MEF's organization as a Marine air-ground task force (MAGTF), contextualizes the MLRs within III MEF, and examines III MEF's role within the SIF. It then reviews a method for III MEF warfighting as a part of the SIF. Finally, it proposes implications for this model for MEF warfighting within other theaters against other threats.

The MAGTF and III MEF

The MAGTF is the Marine Corps' principal organization for conducting missions across the range of military operations. MAGTFs provide combatant commanders with scalable, versatile expeditionary forces able to respond to a broad range of contingency, crisis, and conflict situations. The MAGTF joins air, ground, and logistical forces as a combined-arms, self-sufficient, and highly responsive force. MAGTFs are tailored by the mission for rapid deployment by air, sea, or a combination. No matter the mission, a MAGTF encompasses four elements: command element, ground combat

[3] *Force Design 2030 Annual Update* (Washington, DC: Headquarters Marine Corps, 2023), 2.
[4] Dzirhan Mahadzir, "U.S. Marines Stand Up New Regiment, Chinese Warships Sail in East China Sea," *USNI News*, 16 November 2023.

element, aviation combat element, and logistics combat element. A single commander leads and coordinates this combined-arms team from predeployment training through all phases of deployment and combat. Standing MAGTFs exist at different echelons at the regimental, brigade, and corps level, respectively as Marine Expeditionary Units (MEU), Marine Expeditionary Brigades (MEB), and Marine Expeditionary Forces (MEF).[5]

III MEF is a corps-level MAGTF commanded by a lieutenant general and composed of 3d Marine Expeditionary Brigade, 3d Marine Division, 1st Marine Aircraft Wing, 3d Marine Logistics Group, 31st Marine Expeditionary Unit, and III MEF Information Group. At full strength, III MEF totals approximately 26,000 Marines located across 10 camps and air stations throughout Okinawa. In addition, 3,200 Marines and sailors are stationed on mainland Japan and approximately 5,000 are stationed in Hawaii.[6]

In addition, III MEF's capabilities and position optimize it to conduct a series of specific missions within the first island chain. Writ large, III MEF can establish three Joint Task Force-capable headquarters and provides the nucleus for Joint and combined integration of U.S., allied, and partnered forces within the first island chain. In addition, III MEF's location enables it to develop and maintain deep ally and partner relationships, notably with equivalent headquarters operating in the same terrain, such as the Japanese Western Army and the Philippine Marine Corps.

The 3d Marine Expeditionary Brigade is a staff of approximately 100 Marines that supports a scalable crisis response headquarters under which a brigade-level MAGTF can be task organized. The 3d MEB is now integrated into the headquarters of Expeditionary Strike Group 7 to form Task Force 76/3. This arrangement provides a standing, navally integrated, one-star headquarters to employ the full range of amphibious capabilities that

[5] *Marine Corps Operations*, Marine Corps Doctrinal Publication 1-0 (Washington, DC: Headquarters Marine Corps, 2011), 2-7.
[6] *III MEF Booklet* (Camp Courtney, Okinawa: III Marine Expeditionary Force, 2022), 6–31.

reside within Seventh Fleet, including an amphibious squadron, a mine countermeasure squadron, and other enablers. Further, Task Force 76/3 provides an organic coordinating mechanism for Marine and Navy fires and effects across the maritime battlespace within the first island chain.[7]

The 3d Marine Division, as the ground combat element for III MEF, is the MEF's action arm for seizing and defending key maritime terrain and conducting sea denial. The 1st Marine Aircraft Wing conducts all functions of Marine aviation, antiair warfare, maritime target interdiction, aviation command and control, and perhaps most notably in this maritime theater, provides organic airlift for all III MEF forces. The 3d Marine Logistics Group provides sustainment for the MEF and critical engineering support. III MEF Information Group provides task-organized, scalable force packages to provide organic information warfare, multispectrum sensing, electromagnetic support, cyber operations, and assured communications. Finally, the 31st Marine Expeditionary Unit is a reinforced, regimental-size MAGTF embarked aboard amphibious shipping and serves as the Marine Corps' only persistently forward deployed MEU.

While Marine Corps Installations Pacific (MCIPAC) is an adjacent command that has only a coordinating relationship with III MEF, it is important to emphasize the increasing interdependency of III MEF and MCIPAC.[8] Due to the increased threat presented by the PRC across the first island chain, and III MEF's role as a stand-in force, MCIPAC is no longer viewed or treated merely as the steward of bases and stations in the Pacific. Rather, MCIPAC serves as a power projection platform for III MEF forces and Joint forces moving through and operating from these locations, providing the advanced naval bases from which combat forces will

[7] Steven Bancroft and Benjamin Van Horrick, "Creating a Sea Change: TF 76/3, Adaptation, Experimentation, and the Joint Force," Modern War Institute at West Point, 1 March 2023.
[8] *III MEF Booklet*, 32–35.

Figure 1. III MEF and MCIPAC organizational chart, Okinawa, Japan (2024)

Source: III MEF, U.S. Marine Corps, adapted by MCUP.

fight. MCIPAC will necessarily be responsible for multiple roles in combat, such as base defense, base recovery after attack (BRAAT); reception, staging, and onward integration (RSOI) of force flow; and rear area security.

The MEF, the MLR, and the SIF

In 2021, the Marine Corps published *A Concept for Stand-in Forces*, a framework to guide Marine operations with allies and partners from within contested areas. The ideas continue to evolve and are reflected in the Marine Corps' annual *Force Design* updates, the most recent of which was published in June 2023.[9]

Individual elements of the Marine Corps' evolving force design, such as Marine Littoral Regiments (MLR), naturally draw attention when discussing the SIF concept as they appear to be the hallmark of III MEF's contribution to sea denial.[10] Battalions

[9] *Force Design 2030 Annual Update*, 1.
[10] Todd South, "In China's Backyard: The New Marine Regiments Changing the Fight," *Marine Corps Times*, 13 May 2024.

within the MLRs include the new littoral combat teams, the littoral antiair battalions, and the littoral logistics battalions.

These formations bring long-range precision fires to engage enemy ships, as well as antiair defense systems to protect friendly forces from enemy strikes. These capabilities are essential elements of the SIF concept, allowing naval expeditionary forces to operate and survive within the operational reach of an enemy's fires, hold enemy forces at risk, and create opportunity for standoff forces to eventually fight into the enemy's threat range and roll them back.[11]

As initially conceived, the three infantry regiments underneath 3d Marine Division—3d, 12th, and 4th Marine Regiments—were slated to transform into MLRs. To date, 3d and 12th Marine Regiments have been redesignated as MLRs (3d MLR and 12th MLR) and continue to move toward full maturation. Currently, 4th Marine Regiment remains a conventional infantry regiment.

While the MLRs are critical elements of the SIF concept, it is important to think of these units as just single elements of a larger SIF warfighting system. The MLRs alone are not the SIF, for operating alone, they are operationally incapable. MLRs lack organic mobility, their magazines are limited, they offer but a single contribution to what must be an integrated air defense, and they lack sufficient mass to retain ground against a concerted enemy attack. It is only with III MEF as a whole in support that naval expeditionary forces can deploy, seize key maritime terrain, defend it, contribute to sea denial, and provide sustainment to provide a combat credible threat to enemy forces over time. The MLRs are not the Marine Corps' stand-in force in the first island chain; rather, III MEF is the Marine Corps' stand-in force in the first island chain. MLRs cannot serve as the base unit for a maritime defense in depth, but a MEF can.

[11] Andrew Feickert, *The U.S. Marine Corps Marine Littoral Regiment (MLR)* (Washington, DC: Congressional Research Service, 2024), 1.

III MEF's Role within the Stand-in Force

To understand III MEF's role within the SIF concept, it is best to first understand the definition of SIFs: "Stand-in Forces are small but lethal, low signature, mobile, relatively simple to maintain and sustain forces designed to operate across the competition continuum within a contested areas as the leading edge of a maritime defense-in-depth in order to intentionally disrupt the plans of a potential or actual adversary."[12] SIF is not just inclusive of Marine Corps forces but includes any force that meets this definition. Generally, this includes submarines and special operations forces (SOF), with today's planners categorizing SIF as "Marines, subs, and SOF."

As the SIF concept has matured with III MEF as the point of experimental action and the point of need given the threat posed by the CCP, the Marine Corps has refined its understanding of III MEF's role as it has proceeded to develop *Force Design 2030*. Per one annual update, III MEF is described as a SIF this way: "Optimized as Stand-in Forces in the first island chain . . . underpinned by maritime mobility III MEF secures key maritime terrain, gains and maintains maritime domain awareness, and maintains U.S. security guarantees through a persistent, forward-deployed posture that helps U.S. interests and supports allies and partners."[13]

With a greater appreciation of the composition of III MEF, and the role of III MEF as the Marine Corps' contribution to SIF over and above the MLRs, it is possible to expand on these Service explanations with greater granularity when templating III MEF onto its location within the first island chain.

Critically, one can assess III MEF's value to the geographic combatant commander within the Pacific, USINDOPACOM, this way: III MEF provides USINDOPACOM with scalable and versatile

[12] *A Concept for Stand-in Forces*, 4.
[13] *Force Design 2030 Annual Update,* 14.

MAGTFs to support deterrence activities and, if necessary, respond to crisis situations and contingency operations. III MEF is not the stand-in force, but it is the nucleus of the stand-in force for a conflict within the first island chain. USINDOPACOM's premier warfighting focus, as inferred from the U.S. *National Security Strategy* and the *National Defense Strategy*, is deterring, and potentially prosecuting a war between the United States and China within its area of responsibility. Among the forces available to USINDOPACOM, many are based on the West Coast of the continental United States, based in Hawaii, or based in Guam. In terms of operational factors such as time, space, and force, it is critical in a fight that is preventing a fait accompli by the CCP that the right forces be in the right place in time to matter. As such, a sufficient warfighting force with an appropriately supported echelon of command within the first island chain that can immediately achieve decisive effects against China's People's Liberation Army (PLA) forces making a bid for Taiwan, with the appropriate authorities and ability to serve as Joint task force, is essential. III MEF is the only formation and headquarters that fits the bill. Four central ideas to this role follow:

1. III MEF is uniquely postured to support crisis response, deterrence, and, if necessary, a naval campaign. The right forces have to be in the right place to offer operational relevance. III MEF does just that. III MEF forces are stationed within immediate striking distance of the adversary. When deployed and operating at key maritime terrain, III MEF sensors can detect enemy forces in real time, and transfer target quality tracks to close kill chains—that is, to pass the information needed for Joint fires and effects to target and kill enemy forces. The most credible deterrent is a combat credible force, and III MEF offers that, like a knife pointed right at the throat of America's most dangerous threat. As a MAGTF, III MEF offers a cohesive, combined arms-capable force that can disperse across the battlespace and enforce, via fires and effects, a "line of scrimmage" that will prevent

PLA forces from breaking out of the first island chain in strength, while serving as the eyes and ears of the Joint and combined force. This includes closing kill chains with platforms from other elements of the SIF, such as submarines with Seventh Fleet and special operations with Special Operations Command Pacific. This will also include surface vessels from Seventh Fleet when conditions permit them to operate in the vicinity of the first island chain, as well as those Pacific Air Force aircraft that pulse back into the first island chain for sorties from safer locations outside of the threat range of the preponderance of enemy munitions. When U.S. Army Pacific forces flow into theater, they will be tied into this kill chain, as well, via III MEF sensors. In a sense, III MEFs location, capability, and naval character allow III MEF to serve as a corps-level targeting cell that can action fires and effects for all of INDOPACOM as well as for allies and partners.[14]

2. III MEF's strength is multiplied exponentially through its relationships with allies, partners, and the U.S. Joint force. III MEF will not fight alone. Every U.S. fight is a Joint fight, and a fight against the CCP will be a coalition fight. By doctrine, the command operating forces in the vicinity of the first island chain and beyond would be a Joint task force (JTF), and this and other JTFs would operate under INDOPACOM as the Joint Force commander (JFC). Figure 2 depicts III MEF in relation to Joint and allied forces arrayed across the Pacific. The distances from the first island chain, where III MEF operates, and the remainder of these forces is telling. For forces to matter at the start of any war, they must be in the place that counts, and III MEF is already established at the key operational location. With command and control

[14] LtCol Brian Kerg, "Put III MEF in a Fighting Stance," U.S. Naval Institute *Proceedings* 149, no. 12 (December 2023).

nodes established at the decisive point, and with integrated command and control capabilities linked into adjacent Service headquarters via survivable, organic, terrestrial-based tactical data links and communications pathways, III MEF can sense enemy targets and pass them to the Joint force for targeting, and vice versa. Similarly, as III MEF's location demands and fosters constant working relationships with adjacent allied and partnered forces, such as the Japanese Western Army and the Philippine Marine Corps.[15] Consistently increasing activities to enhance interoperability with allies and partners ensures that the same advantage of closing kill chains across the U.S. Joint force is offered to allies and partners, leveraging their sensors that expand across the first island chain, as well as additional magazine depths for critical munitions.

3. III MEF and Marine Corps Installations Pacific are interdependent and provide advanced naval bases. As described above, MCIPAC is now an essential element of III MEF's combat power, as well as the combat power for the Joint force. Marine Corps bases and stations in the first island chain are effectively the "gun" from which III MEF "rounds" of combat power will fire—and where they will return to reconstitute and where new forces will generate.[16] The principle of advanced naval bases extends the MEF-MCIPAC value to the entire Joint force, as additional forces to support a fight with China will flow into theater and forward into a fight through these established bases. As extensions of MCIPAC bases, III MEF will establish expeditionary advanced bases (EAB) at key maritime terrain to better enable the dispersal and persistent deployment of difficult to detect and rapidly mobile force packages, in

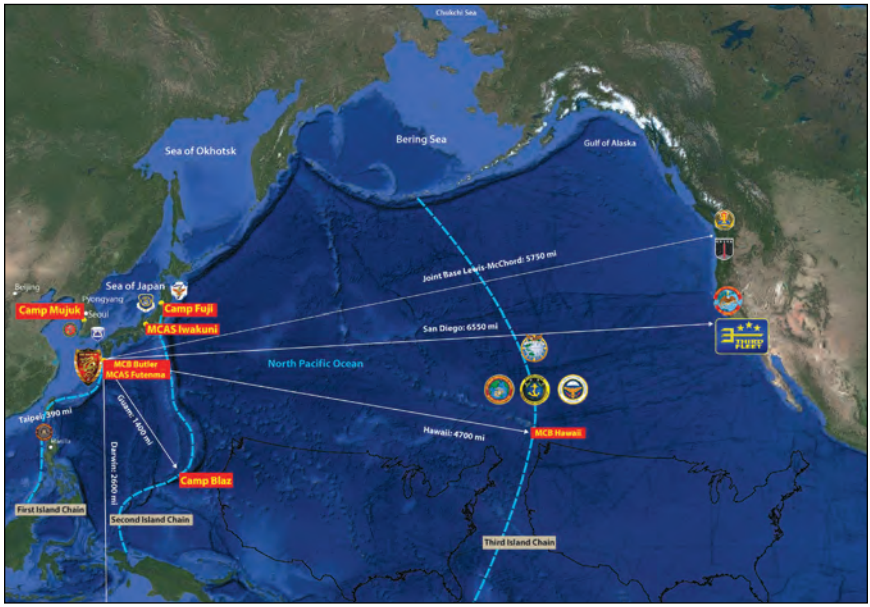
[15] *Force Design 2030 Annual Update*, 14.
[16] *III MEF Booklet*, 33.

line with SIF concepts and EAB operations principles.[17] As such, advanced naval bases are aligned across a spectrum where size and permanence are inversely proportionate to capability—with EABs on the low end to large, established bases and stations on the other.

4. III MEF supports a free and open Indo-Pacific by competing daily for influence and access. As a persistently deployed corps-level MAGTF operating by, with, and through those countries that geographically surround the PRC, III MEF is the United States' principal action arm to influence allies and partners to increasingly align themselves with the III MEF forces are consistently called on and seek out opportunities to participate in bilateral and multilateral engagements with key leaders and subordinate forces. These relations flow up, causing military-to-military exchanges to influence the policy makers who those military forces serve. Increasingly effective and collegial bilateral and multilateral exercises strengthen bonds between nations, generate progress toward interoperability, and serve to grease the iron gears of coalition building. Repeatedly, the professionalism inculcated into U.S. Marines in general and III MEF Marines in particular pays dividends in every engagement, winning much-needed influence with foreign governments on behalf of the U.S. government. For the Joint force, this also results in the output of greater permissions for access, basing, and overflight, further enhancing the combat credibility of III MEF and the Joint force by communicating clearly to the CCP that the United States will operate alongside a coalition of nations who will not bow to the malign influence of the CCP.

[17] SSgt Albert Carls, "Stand-in Force Exercise: 1st Battalion, 2d Marines Air Insertion," Defense Visual Information Distribution Service, 7 December 2022.

Figure 2. III MEF in relation to Joint and allied forces, Okinawa, Japan (2024)

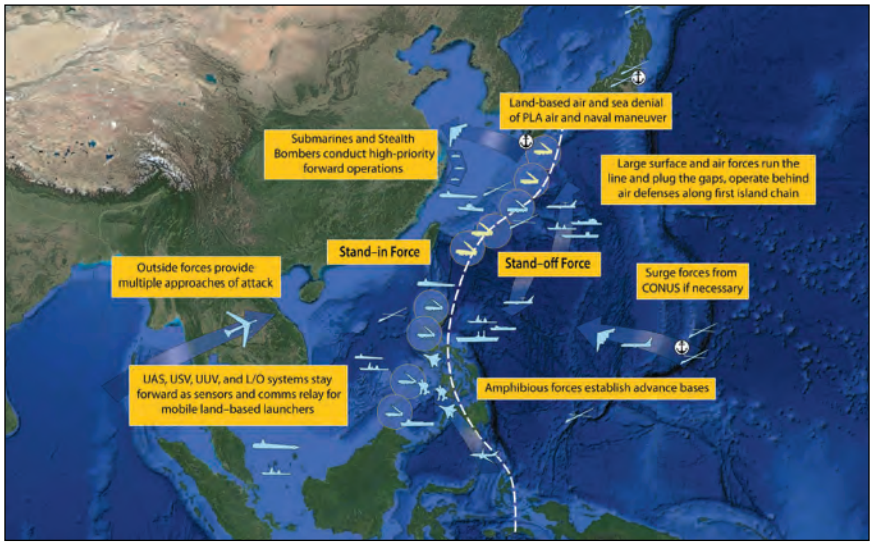


Source: III MEF, U.S. Marine Corps, adapted by MCUP.

How III MEF Fights as a Stand-in Force

Figure 3 depicts U.S. SIFs, portrayed as blue icons, arrayed across the first island chain, from Japan in the north through the Philippines in the south. In addition, allied forces are depicted as green icons. These forces are templated along a dashed line that corresponds with the key maritime terrain of the first island chain, which in effect demarcates the forward edge of the maritime defense in depth provided by the SIF. Those forces operating on and inside of that line are stand-in forces, while those operating to the right of the line comprise stand-off forces, which consist of those forces that principally operate outside of contested areas. The composition of the SIF and the manner in which they operate enable the entry of stand-off forces into the weapons engagement zone of the adversary, at first periodically, and then more regularly

Figure 3. Stand-in forces



Note: This inside-out defense overview from a Center for Strategic and Budgetary Assessments report has been modified to align with current terminology, replacing the "inside force" label with "stand-in forces" and the "outside force" label with "stand-off forces." Source: Thomas G. Mahnken et al., *Tightening the Chain: Implementing a Strategy of Maritime Pressure in the Western Pacific* (Washington, DC: Center for Strategic and Budgetary Assessments, 2019), 31, adapted by MCUP.

as enemy capabilities are collectively rolled back by the Joint and combined forces of the United States, its allies, and partners.

So how does III MEF contribute, specifically? The above figure reveals the overlap of this concept with the same locations in which III MEF is placed along Marine Corps bases and stations, as well as those locations where III MEF forces routinely deploy, exercise, and operate alongside allies and partners. Given that III MEF forces are persistently stationed, deployed, and ready to operate as a combat credible force, any location in which III MEF forces operate in the first island chain becomes key maritime terrain from which sea denial operations can be conducted. Still, the value of terrain is relative to the objectives of the operation, so force disposition will occur based on the nature of the crisis and the starting position of the necessary forces when the crisis begins.

At the indications and warning of an impending crisis, III MEF will place its forces into a notional fighting stance, the position optimal for serving as a maritime defense in depth. First, those forces that are already favorably placed will conduct the missions assigned to them within the MEF. For example, if a sensor from III MIG is already positioned where it can sense enemy targets, it will remain in place and feed the friendly kill-chain. Second, forces that must get into position will get there. A battery of rocket artillery from an MLR that needs to stage on an island within a key strait will get inserted via 1st Marine Aircraft Wing airlift and seize that key maritime terrain, securing it with infantry. In some cases, enemy forces could occupy that terrain, and seizure could require kinetic operations led by 3d Marine Division at the outset, with a combined arms attack leveraging Joint air and maritime strikes in support through the command and control exerted by the III MEF command element.[18] It is worth emphasizing here that even in the establishment of a maritime defense-in-depth, this establishment is inherently offensive in nature—posturing for the key position requires offensive operations, and holding this position requires sustained strike capabilities that are also offensive by nature. Moreover, even this initial operation required the MEF to fight as a MAGTF, according to the Marine Corps' foundational doctrine.

With sensors and shooters in place, enemy forces are held at risk throughout the littorals within range of the all-domain kill-web established by III MEF. As rules of engagement permit, enemy platforms and positions will be struck by III MEF fires, or, detected target information will be transferred to Joint, allied, and partnered platforms for prosecution. Aviation command and control established within this zone will enable 1st Marine Aircraft Wing to continue to move troops for reinforcement and enable 3d MLG

[18] Scott Cuomo, "On-the-Ground Truth and Force Design 2030 Reconciliation: A Way Forward," *War on the Rocks*, 12 July 2022.

to conduct sustainment. If surface craft are fielded to III MEF prior to conflict, these surface craft will also be used as connectors for sustainment and reinforcement. The 1st Marine Aircraft Wing tactical aircraft, notably the Lockheed Martin F-35 Lightning II, will also conduct aerial strikes throughout the battlespace in tandem with joint air missions.

Survivability and persistence will be enabled through dispersal, counterreconnaissance, antiair warfare, and regenerative capability. The preponderance of forces will move to locations where they are less likely to be targeted, establish themselves in geographic positions that reduce relative massing to reduce casualties if struck by enemy munitions, operate in covered and concealed positions, and move constantly but unpredictably to avoid targeting after releasing emissions, be those physical, electronic, or administrative. Counterreconnaissance, tactical deception, and decoys will degrade enemy sensing and confound enemy targeting. The 1st Marine Aircraft Wing will conduct antiair warfare, providing integrated air and missile defense, contesting enemy long range precision fires via organic and Joint integrated air and missile defense. As advanced naval bases are struck and degraded, MCIPAC will conduct base recovery operations, repairing ports, airfields, and other infrastructure to ensure bases and stations are operable and can continue to receive and project combat power throughout the conflict.

In short, key SIF operational principles by which III MEF will operate can be summarized as: move constantly, shoot judiciously, communicate when able, sustain as required. With each component operating as described, in accordance with these principles, III MEF will get into its fighting stance, fight from within the enemy's reach, serve as the nucleus for maritime operations for Joint and combined forces, and persist over time to enable the entry of standoff forces, setting conditions for victory.

To build on this warfighting concept for the future, U.S. military planners can pursue the following efforts: continue to en-

hance bilateral interoperability with allied and partnered forces, with a focus on preparing to defend key maritime terrain in the Western Pacific; template such efforts relative to the times of the year when the CCP believes it is best postured to conduct malign activities relative to the CCP conscript-training cycle and regional weather that favors PLA operations; continue to strengthen multilateral relationships, leveraging III MEF's position to enable multilateral coordination under a "one theater" approach; and build on the positive momentum created by political and military leaders to preposition supplies and equipment that will be essential during a crisis or a conflict.

SIF Warfighting in Different Theaters

The method of III MEF warfighting described above is executable by other MEFs deployed to other theaters. I MEF, as part of Marine Forces Pacific, and another MEF employable by USINDOPACOM, should explore application of this concept in areas adjacent to III MEF's area of operations, notably in those areas where I MEF regularly exercises and operates within the Philippines, Australia, and Micronesia. A key difference between I MEF and III MEF is that I MEF lacks MLRs, however, the warfighting concept described above shows that MLRs are but a single insufficient element of the SIF construct. I MEF contains similar combined arms and sensing capabilities that are also resident in III MEF, and in much greater capacity, as I MEF is notably larger than III MEF. If deployed forward into the Philippines, Australia, and Micronesia, I MEF and III MEF, as "two MEFs abreast," exponentially increase the combat credibility of the SIF for the USINDOPACOM commander.

Similarly, II MEF, as the Marine Corp's Service-retained MEF, can be deployed as needed to any combatant command and provide similar SIF capabilities. Task Force 61/2, a navally integrated formation similar in scope and mission to Task Force 76/3, continues to operate forward within the EUCOM's area of operations and provides essential reconnaissance and counterreconnaissance

capabilities to that combatant commander.[19] II MEF forces could surge forward and apply the above warfighting concept in a conflict with Russia or deploy to CENTCOM and do so in a conflict with Iran, against the Houthis in Yemen, or similar conflicts. Regardless of theater, the combined arms and sensing capabilities exist to allow any MEF to serve as the core of Joint and combined kill webs and provide a cornerstone to U.S. maritime defense in depth.

Conclusion

The concept for SIF represents a critical paradigm shift in modern and future warfare, particularly in the littoral regions where conventional forces face a significant threat from precision fires. While much of the discourse on SIF focuses on countering the CCP, it is essential to recognize that SIF employment is adversary agnostic, encompassing a range of potential threats including those posed by Russia, Iran, and others.

The Marine Corps, as the originator of *A Concept for Stand-in Forces*, occupies a central position in SIF development. The MLR is a highly capable part of the Marine Corps' contribution to SIF, but the MLR alone is insufficient to achieve the objectives of SIF. Instead, a Corps-level, combined arms MAGTF is necessary—that is, the MEF. Within the first island chain, III MEF is the only unit capable to be the Marine Corps' contribution to SIF. III MEF is also the key formation that will continue to evolve to best posture the United States to maintain the core of a maritime defense in depth to deter and, if necessary, defeat the PLA within the first island chain. And by applying this course of warfighting to other MEFs in other theaters, the Marine Corps can apply the SIF concept within the littorals around the globe.

[19] General Francis Donovan, "Task Force 61/2: A Model for Naval Warfighting," U.S. Naval Institute *Proceedings* 148, no. 6 (June 2022).

Chapter
3

Force Design and Maritime Southeast Asia

Military Diffusion or Mutual Inspiration?

By Drake Long

Introduction

The future Marine Corps will likely be judged by their effectiveness in naval campaigns, most especially those in geostrategic maritime zones like the Indo-Pacific. Public debate about *Force Design's* effectiveness reflects the risk of this modernization goal. It is an unprecedented restructuring of the U.S. Marine Corps, and a rescoping of the Corps' identity so that it more resembles a military branch closely integrated into the naval Service. By nature, this means *Force Design* represents a series of tradeoffs, optimizing the Corps for some security environments, such as the Indo-Pacific, and deemphasizing the skills for others, such as the inland counterinsurgencies of the previous 20-plus years.

Force Design accepts a certain level of risk in proposing these tradeoffs, and debate over that in the common square is inevitable for that reason. However, as the conversation matures, the collective community keenly tuned into Marine Corps developments—comprising scholars, navalists, policy practitioners and the operational community—need to begin asking deeper questions. The community needs to begin assessing *Force Design*'s merits via new

theoretical approaches, especially as its adjacent operating concepts are updated with more frequency. One way to assess the wisdom of *Force Design* is to look at the security environments it is most suited for, and whether other militaries in that environment are coming to the same conclusions as the line of Commandants that developed *Force Design*.

This chapter takes an applied history approach to the history of military innovation—the development of new technologies and tactics for warfighting—across maritime Southeast Asia and seeks to situate *Force Design*'s associated concepts into this context. The discussion then proceeds to assess *Force Design* on the basis of a simple question: Will other militaries in the Indo-Pacific resemble the future Marine Corps? *Force Design*'s effectiveness hinges, at least partially, on the answer to this.

Partnered Logistics Means Partner Reliance

One critical aspect of *Force Design* is the functional role future Marines will play across the competition continuum. Most of this role is outlined in the current draft manual for expeditionary advanced base operations (EABO), *Tentative Manual for Expeditionary Advanced Base Operations,* 2d edition.[1] In the early stages of that continuum, EABO places a special emphasis on the component concept of stand-in forces (SIF) or Marine elements prepositioned in allied or partner territory.[2] The purpose of SIF is to allow the Marine Corps a way to persist and have a marked effect throughout all parts of the conflict spectrum—including in the competition stage where zero kinetic activity is happening, and most contestation is actually happening in the information space.[3] Colloquially, this is probably better known as the gray zone.

[1] *Tentative Manual for Expeditionary Advanced Base Operations,* 2d ed. (Washington, DC: Headquarters Marine Corps, 2023).
[2] *A Concept for Stand-in Forces* (Washington, DC: Headquarters Marine Corps, 2021), 1.
[3] *Information*, Marine Corps Doctrinal Publication 8 (Washington, DC: Headquarters Marine Corps, 2022), 1-3–1-9.

At the conflict-heavy end of that same spectrum, EABO aims to maximize the utility of low-density forces across a massive theater of operations. It meets this challenge by focusing on strategically important waterways and littorals, which ideally are sited beforehand and have supplies prepositioned, thanks to the persistent presence of the SIF.

However, persisting in contested areas requires the permission of the host country. EABO, as a concept, thus has a unique dependency on access, basing, and overflight (ABO) policy in Southeast Asia. Even where access is granted, the kinds of robust forward-operating bases the Marine Corps had in the past will likely not exist in the future. For example, the 2014 Enhanced Defense Cooperation Agreement (EDCA) between the United States and the Philippines represented a new epoch for U.S. military presence in the Philippine archipelago, allowing U.S. military personnel to explicitly operate out of nine specific sites across Philippine territory. However, the nine sites are not military bases of any kind, and U.S. personnel are not allowed to be posted permanently at any of them. They are explicitly rotational; that is, both U.S. and Philippine personnel must have shared access to them, and U.S. personnel must rotate out after completing specific, time-designated tasks agreed to by both militaries. Without the necessity of hosting permanent U.S. forces, the luxuries U.S. soldiers may normally have at other bases are not present, and the EDCA sites today remain overwhelmingly sparse of infrastructure.[4]

EDCA probably represents the apex of any future ABO agreement the United States could secure in the Indo-Pacific. The unique political-military environment of Southeast and East Asia implies that future U.S. military presence will be rotational or threadbare, if anything, in peacetime, and therefore physical staging locations will be much more austere. EABO anticipates this by

[4] Seth Robson, "American Forces Dust off Spartan Philippine Airport During Balikatan Exercise," *Stars and Stripes*, 7 May 2024.

embracing the dearth of infrastructure around littoral areas, outlining a set of logistics operations and requirements that a Marine Corps element and commander will meet to sustain themselves.[5]

These requirements assume Marines will, at times, operate in austere conditions where resupply and relief for expeditionary forces is difficult or not forthcoming in an actual conflict. To counter this, EABO recommends a diffuse set of possible resupply solutions, including making use of local resources and partner-country logistics. In short, *Force Design* envisions the Marine Corps living off the land.[6] The implication for the future Marine Corps, from looking at the EABO concept and the physical reality of the Indo-Pacific, is that EABO will work best when the operating environment, including its equipment, stockpiles, logistical sites, and human terrain, are aligned with their mission.

The best strategic situation for a SIF, for example, is that the materiel it requires to operate and refit as necessary is already in place. The other key enabler for a SIF, beyond the other components of the naval Service and Joint force, is thus the partner country hosting it. And the easiest way for a SIF and the partner country to enable one another is that they both operate from the same page, have the same requirements, and can rotate through the same infrastructure. To put it succinctly, partnered logistics are exponentially easier if all partners supporting a Marine element are also supporting a similar force structure. In conflict, Marine elements deployed to the littoral operations area (LOA), described in chapter 2 of the EABO manual, will ultimately rely on local knowledge of the terrain—something that only local partners are suited to provide, especially in a situation where Marine forces must be mobile across vast distances.

Whether *Force Design* concepts are emulated across likely partner forces in the future is therefore a reasonable question to ask, for

[5] Chapter 6, in *Tentative Manual for Expeditionary Advanced Base Operations*, 2d ed.
[6] *Tentative Manual for Expeditionary Advanced Base Operations*, 2d ed., 6-5.

this reason and more. The purpose of this chapter is to show how uniquely suited *Force Design*'s concepts, weapons, and doctrine are for the future operating environment of Southeast Asia and how it fits into a historical trend of Southeast Asian militaries reconsidering littoral defenses when faced with a superior naval adversary. For this reason and more, *Force Design* concepts are already being emulated unconsciously by Southeast Asian militaries. The Marine Corps' partner Services in Southeast and East Asia are beginning to converge on a similar set of tactics and technology that *Force Design* outlines, and this chapter argues this is mostly the result of mutual inspiration rather than outright emulation.

Force Design may actually provide a premier case study in military diffusion, and show a rare example of military convergence, wherein many different military powers arrive at similar conclusions about their future security environment and what adaptations are necessary.

A Brief History of Military Diffusion in Southeast Asia

If one could travel back in time to 1599 in the area now known as Burma and observe the siege of the capital of Toungoo, one would encounter a confusing, diverse array of military capabilities. On one side, in the militaries of the allied Burmese empires of Toungoo and Arakan, there were Malay and Muslim foot soldiers drawn from the Indian subcontinent and maritime Southeast Asian kingdoms. There were Portuguese mercenaries wielding firearms imported from Europe alongside local troops employing firearms purchased through the sprawling trade routes of the Islamic world.[7] There were cavalry and elite elephant-wielding sol-

[7] Michael W. Charney, "Crisis and Reformation in a Maritime Kingdom of Southeast Asia: Forces of Instability and Political Disintegration in Western Burma (Arakan), 1603–1701," *Journal of the Economic and Social History of the Orient* 41, no. 2 (1998): 185–219, https://doi.org/10.1163/1568520982601287.

diers possibly trained in the Mughal way of warfare.[8] Toungoo and Arakan had combined their fleets, drawn from coopted pirates, yet more Portuguese hired guns, and tributary states along the littorals and islands of Southeast Asia. Each had its own eclectic mix of ship designs and tactics, which had just been demonstrated in the war preceding this siege.[9]

On the other side, the growing empire of Ayutthaya had in its ranks elite Indian bodyguards. It had its own differently structured, differently employed elephant units, and a riverine fleet specialized in raiding or disabling coastal fortifications, possibly based on its experience countering the naval tactics employed by the Malacca Strait kingdoms.[10] It possessed indigenously crafted cannons, and may even have had more artillery and firearms imported overland, produced in what would be modern day Vietnamese, Laotian, or Chinese workshops.[11]

Southeast Asia represents an exceptionally special, illustrative case for how military technologies and innovations can spread rapidly and change a region's character. Spanning the Indian subcontinent and modern-day China, the region had unique exposure to civilizations that created revolutionary military technology at a prolific pace. At Toungoo, revolutionary cavalry tactics and firearms clashed alongside naval campaigns that leveraged substantial foreign expertise, planned by mercenaries and court-appointed commanders that had a wealth of experience fighting with or for other empires. Later on, Eu-

[8] J. J. L. Gommans, *Mughal Warfare: Indian Frontiers and Highroads to Empire*, 1500–1700, 1st ed. (London, UK: Routledge, 2022), 133–200, https://doi.org/10.4324/9780203402580.
[9] Charney, "Crisis and Reformation in a Maritime Kingdom of Southeast Asia," 185–219.
[10] Derek Heng, "State Formation and the Evolution of Naval Strategies in the Melaka Straits, c. 500–1500 CE," *Journal of Southeast Asian Studies* 44, no. 3 (2013): 380–99, https://doi.org/10.1017/S0022463413000362; and Charney, "Crisis and Reformation in a Maritime Kingdom of Southeast Asia," 185–219.
[11] Sun Laichen, "Military Technology Transfers from Ming China and the Emergence of Northern Mainland Southeast Asia (c. 1390–1527)," *Journal of Southeast Asian Studies* 34, no. 3 (2003): 495–517, https://doi.org/10.1017/S0022463403000456; and George Dutton, "Flaming Tiger, Burning Dragon: Elements of Early Modern Vietnamese Military Technology," *East Asian Science, Technology, and Medicine*, no. 21 (2003): 48–93, https://doi.org/10.1163/26669323-02101005.

ropean and Japanese influence reshaped Southeast Asian militaries as well, alongside potent political ideologies that inspired common guerrilla movements across the entire region. It is difficult to argue that the exposure Southeast Asia had to these revolutionary military powers was beneficial in any way. Disruption, colonialism, and ethnic cleansing were the endemic aftereffects of new military conquest and imperial interest in Southeast Asia from the 1500s onward.

Reading the interconnected history of classical Southeast Asia through to the modern day, though, gives a sense of how Southeast Asian kingdoms and polities adapted—and eventually incorporated—revolutionary military tactics, doctrine, and weapons to ensure their maximum chance for survival in times of tumult. From the classical period, to the colonial period, the world wars, wars of national liberation, and the Cold War, a prominent commonality is how militaries in Southeast Asia are influenced by the strongest external powers at any given time, whether European, Mongol, Chinese, Japanese, Indian, Soviet, or otherwise. Southeast Asia thus represents a region known for widespread and rapid periods of military diffusion. *Military diffusion* refers to the common adoption of military technology by some or many countries at once. It usually occurs after a certain military technology or individual weapon system is used widely and publicly in an actual conflict, marking a certain innovation as particularly battle-tested and therefore worthy of emulation by other militaries seeking to keep pace with possible armed adversaries.[12]

Historically, diffusion occurs in a very pragmatic cycle; regional militaries do not want to be caught with outdated weapons and look for battle-proven technologies to adopt that may provide an edge over rivals. Those rivals in turn draw on those same technologies to ensure they do not fall behind in the arms race. However, the diffusion phenomenon is not actually limited to weapon systems,

[12] Emily O. Goldman, "Cultural Foundations of Military Diffusion," *Review of International Studies* 32, no. 1 (2006): 69–91, https://doi.org/10.1017/S0260210506006930.

but also can refer to innovative doctrine or the tactical employment of said weapons. In addition, military diffusion refers to more than just emulation. In the diffusion process, the transmission of knowledge about innovative weapon systems and doctrine eventually transforms culture and the institutions underpinning the military of a given country. This is sometimes referred to as a "revolution in military affairs."[13] This happens by way of a country's national security community (or military elites), who closely monitor their contemporaries around the world.[14]

History shows that innovation via military diffusion occurs in a series of branching paths, as well, as individual countries adopt successful characteristics of systems and tactics, but add their own unique spins to them. And this is dependent on the military culture encountering an innovation for the first time. One illustrative example of this is the adoption of naval gunpowder technology across Southeast Asia in the fifteenth century. Prior to the arrival of European naval powers—the Portuguese and the Dutch—Southeast Asian maritime kingdoms depended on a common style of ship for far seas trade: a type of galley sometimes dubbed the djong, jong, or junk, the latter being a term more familiar with scholars of the same period in Chinese history. While used in warfare, the typical junk was mostly suited for transport—polities in what is now modern-day Indonesia would organize amphibious landing fleets for the main purpose of raiding or seizing key coastal territory, as Dutch historians noted, but many maritime kingdoms primarily built their blue water fleets around trade, and they were not suited for long-range ship-to-ship or ship-to-shore engagements.[15]

[13] "What Is a Revolution in Military Affairs (RMA)?," in David R. Mets, *The Long Search for a Surgical Strike: Precision Munitions and the Revolution in Military Affairs* (Maxwell Air Force Base, AL: Air University Press, 2001), 1–4.
[14] Goldman, "Cultural Foundations of Military Diffusion," 69–91.
[15] "Firearms," in *Southeast Asian Warfare, 1300–1900*, ed. Michael W. Charney, *Handbook of Oriental Studies*, sec. 3, *Southeast Asia*, vol. 16 (Leiden, The Netherlands: Brill, 2004), 42–72, https://doi.org/10.1163/9789047406921_004.

The overwhelming firepower demonstrated by Portuguese and Dutch warships prompted a redraw of regional relations in Southeast Asia and a rethink of many militaries. Gunpowder weaponry was not new to Southeast Asia at this time. The Portuguese found preexisting cannonry during the siege of Melaka in 1511.[16] Mainland Southeast Asia probably produced firearms and artillery as early as 1381 thanks to overland trading routes from Ming Dynasty-ruled China and the defection of Chinese soldiers.[17] This was not even the first time Southeast Asia encountered shipborne cannon, either; that was recorded as early as 1363.[18] What made European empires' weaponry so disruptive was the integration of mobility and sheer firepower—in other words, the combination of Portuguese and Dutch weapon systems and their naval tactics. In isolation, neither were tremendously new developments to Southeast Asian kingdoms fighting along and against littorals prior.

While the Europeans enjoyed a distinct advantage for a time, Southeast Asian polities began integrating firearms and cannon onto their junks and other ship designs, or, in the case of Vietnam, outright reverse engineering European warships.[19] Southeast Asia's militaries did not, ultimately, symmetrically copy European naval fleets. But the introduction of gunpowder profoundly influenced the design of Southeast Asian coastal fortifications and land forces, rapidly increasing the ability of inland empires to suppress and destroy European blue water fleets that were not optimized for the confines of near-shore or riverine warfare.[20]

This arms race culminated in a series of wars between European and Southeast Asian powers in the seventeenth century, when

[16] Charney, "Firearms," 42–72.
[17] Laichen, "Military Technology Transfers from Ming China and the Emergence of Northern Mainland Southeast Asia (c. 1390–1527)," 495–517.
[18] Laichen, "Military Technology Transfers from Ming China and the Emergence of Northern Mainland Southeast Asia (c. 1390–1527)," 495–517.
[19] Dutton, "Flaming Tiger, Burning Dragon," 48–93.
[20] Michael W. Charney, "Shallow-Draft Boats, Guns, and the Aye-Ra-Wa-Ti: Continuity and Change in Ship Structure and River Warfare in Precolonial Myanma," *Oriens Extremus* 40, no. 1 (1997): 16–63.

the Dutch and Portuguese began to face opposing firepower of a similar kind to their own and naval fleets started to lose their influence on decisive military engagements the closer they came to the coastline. The Dutch, notably, then had to discard their overreliance on shipborne bombardment and resort to extensive, well-manned, and well-equipped landing parties, the only tactic suited for suppressing opposing land forces now perfectly capable of sea denial from the shore.[21]

While both empires had tried to limit gunpowder technology from diffusing out to Southeast Asia earlier, this ultimately proved impossible. Western mainland Southeast Asian kingdoms had access to an extensive trade route with the larger Islamic world that readily provided firearms with which to experiment.[22] Southern Vietnam had a fully working workshop for cannonry by the 1700s, largely because it could successfully play the European powers off one another.[23] Javanese kingdoms were explicitly banned from receiving firearms by the Dutch, but regardless procured them through raiding and, in the mid-seventeenth century, indigenous mass-production.[24] Diffusion—the transmission of knowledge about military innovation, above all else—is virtually impossible to stop once it begins.

Furthermore, this imperial episode of Southeast Asian history had a profound effect on the military culture of regional kingdoms for years to come, as previously wealthy maritime nations began to decline in influence, starved for access to the open oceans for trade.[25] They began to be eclipsed by the riverine and inland kingdoms who could operate outside European reach, consolidate power on land, and then cannibalize their maritime polity coun-

[21] Gerrit Knaap, "Headhunting, Carnage and Armed Peace in Amboina, 1500–1700," *Journal of the Economic and Social History of the Orient* 46, no. 2 (2003): 165–92, https://doi.org/10.1163/156852003321675736.
[22] Charney, "Crisis and Reformation in a Maritime Kingdom of Southeast Asia," 185–219.
[23] Dutton, "Flaming Tiger, Burning Dragon," 48–93.
[24] Knaap, "Headhunting, Carnage and Armed Peace in Amboina, 1500–1700," 165–92.
[25] Charney, "Crisis and Reformation in a Maritime Kingdom of Southeast Asia," 185–219.

terparts for resources, human capital, and legitimacy.[26] One could extrapolate from this period the predominance of armies and large land forces in Southeast Asia's more contemporary military history, although that would be a subject for further research.

An addendum to note about this period is what preceded it: the diffusion of maritime power as a core concept around which to build one's armed forces. The adoption by Southeast Asian littoral kingdoms of gunpowder and antiship technology was likely eased by the widespread restructuring of court politics centuries earlier to accommodate a new class of military elite: the naval commander.[27] This was largely due to the proven might of two fourteenth-century naval powers, the Sukhothai and Majahapit, who innovatively put admirals at the center of their political decision-making process.[28] Malay kingdoms, such as those in the Melaka Straits, followed soon after, and these same polities then had the strategic culture to contend with and to absorb yet another military innovation in the form of European naval technology centuries later.

Military diffusion thus goes beyond mere reverse engineering of foreign weapon systems, and represents a shift in strategic perspective, with a strong cohort effect on defense experts and military elites all over the world.

The Future Security Environment of Southeast Asia: On the Edge

Southeast Asian military history bounces between an emphasis on sea power or land power, as the previous example shows. When blue water navies gain strength, some empires turn inward and fo-

[26] Michael W. Charney, "Centralizing Historical Tradition in Precolonial Burma: The Abhiraja/Dhajaraja Myth in Early Kòn-Baung Historical Texts," *South East Asia Research* 10, no. 2 (2002): 185–215, https://doi.org/10.5367/000000002101297053; and Charney, "Shallow-Draft Boats, Guns, and the Aye-Ra-Wa-Ti," 16–63.
[27] Heng, "State Formation and the Evolution of Naval Strategies in the Melaka Straits, c. 500–1500 CE," 380–99.
[28] Heng, "State Formation and the Evolution of Naval Strategies in the Melaka Straits, c. 500–1500 CE," 380–99.

cus on defending key terrain close to the coastline. When there is a vacuum of power on the high seas, new thalassocracies emerge and project power to maintain trade and security. This is the same cycle that both the Toungoo and the Arakanese fell victim to, as military powers emerged from central Burma to conquer the former and the latter was supplanted by maritime powers near modern-day Bangladesh.[29]

Currently, Southeast Asia is entering an era fairly similar to that of the sixteenth century, with all the associated risk. Since the end of the Cold War, maritime Southeast Asia has enjoyed relatively boundless free trade across the world and a lack of interstate war. Integrating into supply chains and shipping routes has allowed most regional governments to premise their social stability on constant, steady economic growth. This has been an especially important issue since the Asian Financial Crisis of the 1990s, which threatened to throw the growth trajectory of the region off-course.[30] Luckily, one country relatively untouched by the crisis at that time was the People's Republic of China (PRC). The PRC has since become the engine of economic growth for Southeast Asia, especially in maritime trade. Even where Vietnam and Indonesia may dominate in certain manufacturing and mining sectors, they are still integrated in supply chains that ultimately run through China. Seven of the 10 largest container ports in the world are all located on the PRC's eastern coast.[31] China remains the largest trading partner of Association of Southeast Asian Nations (ASEAN) countries, a key member of the Regional Comprehensive Economic Partnership (RCEP) to which many ASEAN countries are party, and accounts for nearly one-fifth of all global ASEAN trade in goods.[32]

[29] Charney, "Crisis and Reformation in a Maritime Kingdom of Southeast Asia," 185–219.
[30] Andrew MacIntyre, T. J. Pempel, and John Ravenhill, eds., *Crisis as Catalyst: Asia's Dynamic Political Economy* (Ithaca, NY: Cornell University Press, 2008), 1–25.
[31] "The Top 50 Container Ports," World Shipping Council, accessed 7 January 2025.
[32] Shay Wester, "Balancing Act: Assessing China's Growing Economic influence in ASEAN," Asia Society Policy Institute, 8 November 2023.

In this situation, many Southeast Asian countries are actively looking to build out their marine economies, which offers one path to trade diversification and less reliance on China's largesse. Vietnam, Indonesia, Malaysia, Brunei, and the Philippines are all blessed with exclusive economic zones granting them economic rights to resource-rich waters. Off their coasts, they are pursuing policies to exploit possible oil and gas reserves, seabed minerals, marine genetic material, and other ingredients for entering the future economy in a strong position. In the case of Vietnam, the marine economy has been described as the "driving force for national development" in official policy documents, placing its offshore resources at the center of its plan for maintaining economic growth through 2030.[33] For most countries, marine economic goals are paired with ambitious plans for building out maritime industry, which would include shipbuilding and processing center construction to further take advantage of maritime supply chains.

However, at the same time Southeast Asia is looking seaward for economic opportunity, China has started projecting naval power alarmingly close to their shores. The South China Sea dispute, in recent years, has come to be defined by China's ubiquitous presence in the waters around disputed features and rocks in the area. China's ongoing militarization of the sea includes not only the construction of physical bases and seaports on artificial islands, but also an unprecedented build-up of its navy, coastguard, and maritime militia fleets. The PRC has made an especial point since 2020 of harassing countries like Vietnam and Malaysia for attempting to exploit resources such as oil and gas within their lawfully designated waters.[34]

[33] Decision No. 1579/QD-TTg on Approving Master Plan for Development of Vietnam's Seaport System in 2021–2030 Period with a Vision by 2050, Hanoi, Socialist Republic of Vietnam, 22 September 2021, which represents an upgrade to Decision No. 2290/QD-TTg; and Resolution No. 36-NQ/TW of the 8th Meeting of 12th Central Committee of the Communist Party on the Strategy for Sustainable Development of Vietnam's Sea-based Economy by 2030, Vision to 2045, Hanoi, Communist Party of Vietnam, 22 October 2018, both via LawNet.vn.

[34] "Report: China Harasses Malaysian Oil and Gas Vessels on Daily Basis," *Malaysiakini*, 26 October 2021; and Govi Snell, "Tensions High as Chinese Vessels Shadow Vietnam's Oil, Gas Operations," *Voice of America*, 17 June 2023.

Table 1. Southeast Asian marine economies

Country	Marine economy policy document(s)
Vietnam	Decision No. 1579/QD-TTg on Approving Master Plan for Development of Vietnam's Seaport System in 2021–2030 Period with a Vision by 2050; and Resolution No. 36-NQ/TW of the 8th Meeting of 12th Central Committee of the Communist Party on the Strategy for Sustainable Development of Vietnam's Sea-based Economy by 2030, Visions to 2045
Malaysia	Twelfth Malaysia Plan (chapter 2, theme 3)[1]
Indonesia	Marine Policy Action Plan 2021–2025[2] ; and Global Maritime Fulcrum
Philippines	*Maritime Industry Development Plan 2019–2028*[3] ; and Blue Economy Act of 2023[4]
Brunei	Brunei Vision 2035[5]

[1] See "Twelfth Malaysia Plan (12MP)," Governance, Whole of Government, MyInitiative, Malaysia.gov, accessed 7 January 2025.
[2] Indonesian Office of Assistant to Deputy Cabinet Secretary for State Documents and Translation, "Gov't Issues Plan of Action on New Maritime Policy," press release, 6 March 2022.
[3] See *Maritime Industry Development Plan 2019–2028* (Maritime Industry Authority, Republic of the Philippines, 2021).
[4] See Blue Economy Act, S. 1993, 19th Congress, Senate of the Philippines (2023).
[5] Brunei Vision 2035 sets a series of broad goals for Brunei's future economy to meet. Specific policies implemented to meet one of these goals would include the Brunei Darussalam Maritime Cluster project, which is part of a larger 2020 Economic Blueprint. "Brunei Vision 2035–Wawasan 2035," Embassy of Brunei Darussalam to the United States of America, accessed 7 January 2025.

There are many ways to characterize the ongoing activities of the People's Liberation Army (PLA) in the South China Sea. A simple way to understand it is to think of it as a persistent naval campaign that emphasizes presence. Presence for the U.S. Navy and naval Service is thought of as the message sent by stationing naval forces around a network of global bases.[35] While the PLA has bases in the South China Sea of its own, it approaches presence differently, by being a ubiquitous roving force, supplemented by

[35] *Chief of Naval Operations of the Department of the Navy Navigation Plan for America's Warfighting Navy, 2024* (Washington, DC: Office of the Chief of Naval Operations, Department of the Navy, 2024), 16.

paramilitaries, at the very edges of China's self-proclaimed boundaries in the area. This sends a message as well. The PRC's position appears to not only be that it controls features in the South China Sea but also that it will control access to the area's resources, which is also evidenced by the recent high-profile incidents of Chinese vessels and aircraft harassing other militaries transiting through the South China Sea despite it being international waters, outside the national jurisdiction of any one country.[36] In this way, China is attempting to exert de facto sovereignty over a vast maritime area.[37]

For Southeast Asia, this has been an ongoing concern, as voiced in the 42d ASEAN Summit chairman's statement calling for "freedom of navigation and overflight" in the South China Sea during the 2023 ASEAN Summit.[38] Regional powers seek to unlock the potential of their marine economies and grow their maritime industries. It is increasingly looking like China, with its advanced blue-water navy, may stand in the way.

The future security environment of Southeast Asia will be colored by how China approaches this dispute. At the same time, Southeast Asia is dealing with other littoral issues in the medium term. The region as a whole is undergoing widespread urbanization and littoralization, primarily in the direction of the sea.[39] Wealth and social services are being condensed into bustling port cities, a natural outgrowth of economic dynamism.[40] Industrial activity at sea—which can include fishing, oil and gas extraction,

[36] Ella Sherman, " 'Unsafe' Intercepts of Australian Anti-submarine Aircraft by Chinese Fighter Jets Hint at What They May Be Guarding so Aggressively, Naval Expert Says," *Business Insider*, 13 May 2024.
[37] Chapter 7, in *Maritime Cooperation and Security in the Indo-Pacific Region*, eds. John F. Bradford et al. (Leiden, The Netherlands: Brill | Nijhoff, 2022), https://doi.org/10.1163/9789004532847.
[38] Item 120, "Chairman's Statement of the 42nd ASEAN Summit, Labuan Bajo, Indonesia, 10–11 May 2023" (chairman's statement, ASEAN Indonesia 2023 Summit, 11 May 2023).
[39] Richard Florida, "How Urbanization Is Driving Southeast Asia's Economies," *Bloomberg*, 8 January 2017.
[40] Florida, "How Urbanization Is Driving Southeast Asia's Economies."

and other activities—is expected to double by 2030.[41] At the same time, littoral regions, especially cities, are the most vulnerable to climate change. Coastal erosion and ecosystem degradation are already affecting maritime Southeast Asian states, and is expected to get worse in the coming decades.[42]

In sum, Southeast Asia is set to be more dependent on its marine potential in the coming years, despite its coastal regions being especially vulnerable. It is increasingly at risk of constant coercion by a qualitatively and quantitatively superior People's Liberation Army Navy (PLAN) that no other regional state can match. This combustible combination is driving Southeast Asian governments to rethink their militaries and national security, focusing on what physical terrain advantages they may have against a potentially hostile PRC (or otherwise external) navy.

Future Marine Corps and Southeast Asian Militaries: Aligned in Mission, if Not Resources

What is uncanny is how the Marine Corps is forcing itself to adapt to this challenge at the same time. At its core, *Force Design* focuses on maximizing the tools and strategies available to the Corps to support naval campaigns and enact sea control from unexpected positions. The Marine Corps' previous doctrine and force structure was focused less on supporting sea control than it was outmaneuvering conventional land forces and securing civilian populations to prevent low-level conflict. This mirrored the major engagements the Corps has been involved in during the past two decades, namely counterinsurgency campaigns inland of Iraq and Afghanistan. The shift to amphibious operations in support of sea control—as outlined in the many components of *Force Design*—

[41] Jennifer Raynor, "We Used AI and Satellite Imagery to Map Ocean Activities that Take Place Out of Sight, Including Fishing, Shipping and Energy Development," *Conversation*, 3 January 2024.
[42] J. Jackson Ewing, "Contextualising Climate as a Cause of Migration in Southeast Asia," in *Climate Change, Migration and Human Security in Southeast Asia*, ed. Lorraine Elliott (Singapore: S. Rajaratnam School of International Studies, 2012).

is emblematic of the new strategic significance littorals in the Indo-Pacific have taken in the minds of U.S. defense planners.

Concurrently, most of the Indo-Pacific is shifting in a similar manner, promulgating national security strategies and military reforms focused on waterways, littorals, and the requirements to sustain an amphibious campaign. Since the late Cold War, Southeast Asia's military powers have focused on internal threats such as secessionism, terrorism, or other insurgencies. The overall trend among Southeast Asia's biggest militaries—the Philippines, Indonesia, and Vietnam, to name a few—now is to focus more on protecting territory from external threats and shifting resources from conventional land forces to naval Service equivalents.

This is taking the form of larger navies, new weapons and tactics for coastal defense, and in some cases traditionally army-centric militaries handing prominent commands or planning positions to other armed Services. A summary of this shift shows how many of the core concepts of *Force Design*—mobile, low-density forces suited for guarding strategic areas with antiship and other diverse sea control weaponry—are making their way into these reforms as well.

Philippines

The Philippines may be most representative of how many Southeast Asian countries are converging on a trend of territorial consolidation, when long-running insurgencies lose power, and where that may ultimately lead at the national policy-making level. Since signing a peace deal with insurgents in Mindanao and reducing the Maoist guerrilla movement in the country down to a shadow of its former self, the Philippines has officially signaled an explicit shift from internal to external defense. This is captured in President Ferdinand Marcos Jr.'s Comprehensive Archipelagic Defense Concept.[43]

[43] Philippine Presidential Communications Office, "PBBM Admin's Adoption of Comprehensive Archipelagic Defense Concept Is a Move in the Right Direction, Says Expert," press release, 9 March 2024.

Marcos's defense concept is best understood by looking at the major military investments being made by the Armed Forces of the Philippines (AFP) under the Re-Horizon III procurement plan. The AFP plans on spending more than $6 billion for small missile corvettes, coastal defense missile batteries, and offshore patrol vessels as well as aircraft suited for patrolling beyond the Philippine coastline.[44] This is explicitly to meet the new requirement of controlling and defending all of the Philippines' vast exclusive economic zone, as well as asserting rights to features and islets within that zone. Multidomain amphibious operations across island chains are set to be a goal for the AFP under Re-Horizon III, incorporating new platforms and even unmanned systems for reconnaissance and sustainment.[45]

The Philippines is unique in that it possesses a mutual defense treaty with the United States, something no other claimant to the South China Sea dispute has. However, it is also unique in that it is exposed to multiple lingering disputes the PRC considers unresolved that could lead to a wider conflict. For example, it neighbors Taiwan, a self-governing nation under the name of the Republic of China on which the PRC has irredentist claims. If ever a conflict broke out over Taiwan, it is unlikely the Philippines would be able to stay completely uninvolved, especially if the United States is caught up as well. As a consequence of this, the AFP is notably putting money into upgrading military facilities in the Batanes, an island chain far to the north of Luzon that is closest to Taiwan Island, as well as permanently stationing more personnel there and even conducting some exercises with American counterparts.[46]

The U.S. alliance is also probably why the Philippines, more than any other country in the region, is modeling some of its re-

[44] Rex Anthony Naval, "Rehorizon 3 Unveiled: AFP's Strategic Move for Territorial Defense and Modernization," *BusinessMirror*, 27 January 2024.
[45] Aaron-Matthew Lariosa, "A Modernizing Force: An Interview with Philippine Navy Chief Adaci," *Naval News*, 29 September 2024.
[46] Chito De La Vega, "Philippines to Boost Military Presence in Islands Facing Taiwan," *Rappler*, 7 February 2024.

forms on U.S. counterparts. The original idea behind the Comprehensive Archipelagic Defense Concept was articulated by the Philippine Marine Corps as the Archipelagic Coastal Defense concept, and its core tenets are extremely similar to that of *Force Design*.[47] Namely, it reorients the Philippine Marines and emphasizes maneuvering to control key littorals and areas adjacent to strategic waterways, which would then allow them to support elements maneuvering through those waterways or to counter adversary forces pushing through the same areas. In support of this, they are currently the primary recipient of three batteries of the Indian- and Russian-developed BrahMos antiship cruise missile system, which is designed to be mobile and exceptionally lethal to a hostile navy parked offshore.[48]

Vietnam

Following the fall of Saigon and the invasion of neighboring Cambodia in 1978, the Vietnam People's Army (VPA) spent much of the Cold War as a force primarily focused on counterinsurgency in inland areas. At its height, the VPA numbered roughly 1.26 million soldiers and dealt with a pronounced irregular threat to its occupation in Cambodia and periodic border skirmishes with the PRC.[49] The VPA only had the opportunity to adjust its military structure when it completed its withdrawal from Cambodia and the drawdown of half its standing army in 1990. Tran Quang Co, a Vietnamese diplomat throughout the 1979–91 period, noted in his memoir the increasing pressure from China over the Cambodian occupation, which culminated in the 1988 skirmish over Johnson South Reef in the South China Sea that saw 64 Vietnamese Navy sailors

[47] Rej Cortez Torrecampo, "A Paradigm Shift in the Philippines' Defense Strategy," *Diplomat*, 11 April 2024.
[48] Torrecampo, "A Paradigm Shift in the Philippines' Defense Strategy."
[49] Carlyle A. Thayer, "Force Modernization: Vietnam," *Southeast Asian Affairs* (2018): 429–44.

killed.[50] Co depicted this transition period as especially tense, where Hanoi began to think it needed to pivot its military to countering an "expansionist, hegemonistic" PRC rather than continuing a *force design* dedicated to counterinsurgency.[51] Crucial to this pivot was a hardening of Vietnam's positions across the South China Sea.

For those skeptical the EABO concept could ever work, the analogue of Vietnam is worth a look. Specifically, the concept of sparse new multidomain bases for mobile operations is not particularly new to Vietnam's armed forces or their paramilitary equivalents. Vietnam has already built a sprawling network of bases in the South China Sea, which are utilized as safe harbors and lily pads for low-density marine forces, civilian fishermen, and Vietnamese maritime militia.[52]

Vietnam's military tradition includes a particularly notable strength in building defensive fortifications, often inspired by the premier military powers of the time.[53] In this case, Vietnam's base building on South China Sea islets has grown concurrently with that of the PRC, although the disparity in resourcing for this effort is apparent when looking at an artificial island constructed by each over satellite imagery. Vietnam does not believe it can symmetrically match the exponential growth of the PLA. What it instead chooses to do is build its bases in such a way that it maintains access to the strategic waterways and littorals of the South China Sea, and complicates enemy planning. This has been the sea denial strategy pursued by the Vietnam armed forces since the end of the Cold War.[54]

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[50] Tran Quang Co, *Trang Quang Co: A Memoir*, trans. Merle Pribbenow, Wilson Center Digital Archive, July 2003, 41–45.
[51] Co, *Trang Quang Co: A Memoir*, 41–45.
[52] "Castles Made of Sand: Vietnam's Spratly Upgrades," Asia Maritime Transparency Initiative, 8 July 2022.
[53] Dutton, "Flaming Tiger, Burning Dragon," 48–93; and Frédéric Mantienne, "The Transfer of Western Military Technology to Vietnam in the Late Eighteenth and Early Nineteenth Centuries: The Case of the Nguyễn," *Journal of Southeast Asian Studies* 34, no. 3 (2003): 519–34, https://doi.org/10.1017/S0022463403000468.
[54] Shang-su Wu, "The Development of Vietnam's Sea-denial Strategy," *Naval War College Review* 70, no. 1 (2017): 143–61.

Nowhere is this truer than in the Union Banks, a microregion of the winder Spratly archipelago at the southern end of the South China Sea. Every Vietnamese artificial islet in this circle of features—Collins Reef, Sin Cowe Island, Grierson Reef, and Landsdowne Reef—can hold a corresponding PRC-held one within weapons range.[55] The static defenses on each of these islets are to ensure a token resistance in the case of an enemy amphibious assault. The naval and paramilitary forces rotated out to these islets allow for opportunistic occupations of neutral or even PRC-held islets if the PLAN were for whatever reason unable to respond. This makes Vietnam's garrisons a nuisance more than a strategic obstacle, but this invokes exactly the kind of dilemmas on the enemy that the Marine Corps is trying to create under the EABO and SIF concept.

On the nature of militaries operating in austere conditions, Vietnam's resource-constrained regular military is supplemented by two other paramilitary forces—the numerous border defense forces and local militias. Together, these forces working to support the regular military are a key component of the "local people's war" Vietnam envisions playing out in any wartime scenario.[56] Vietnam has doubled down on this concept in recent years, especially for maritime areas. Unique to Southeast Asia, it has developed and expanded its own maritime militia at a time other claimants, such as Indonesia, are trying to consolidate naval Services under unified command. The militia, formally promulgated under the 2019 Law on Militia and Self-Defense Forces, is broadly comparable to the People's Armed Forces Maritime Militia (PAFMM) of the PRC, but whereas the PAFMM is used for power projection purposes, the Vietnamese militia fit more neatly into the local people's war concept. They function as part of a gradient of irregular forces

[55] Mike Yeo, "Vietnam Strengthens Fortifications in Disputed South China Sea, Satellite Images Reveal," *DefenseNews*, 18 August 2022.
[56] See *Viet Nam National Defense White Paper* (Hanoi, Socialist Republic of Vietnam: National Political Publishing House, 2019), for a description of a "local people's war."

patrolling the Vietnam exclusive economic zone, putting up resistance and supporting military efforts to degrade a hostile force the closer it gets to the Vietnamese shoreline.[57]

This may not seem similar to EABO or any other key *Force Design* concept at first glance, but on closer examination the primary roles of the militia and other paramilitary forces reflect the same principles of distributed maritime operations (DMO), as these forces' dispersal is primarily intended to deny an enemy navy or amphibious force freedom of movement.[58] The inspiration, for Vietnam's military, is decidedly Maoist and Leninist, but the core goals are more similar to that of the Marine Corps.

The local forces prepare an operational environment for other military forces, similar to the envisioned partnered logistics under the EABO tentative manual. Furthermore, the militia are the eyes and ears of the Vietnamese military, supplementing reconnaissance of the enemy and potentially using their observations of enemy behavior to support information operations. These are the roles an asymmetric military play when facing a symmetrically superior foe—and they are similar to how reconnaissance and counterreconnaissance may play out in a future Marine Corps. The local forces captured under militia authorities can be human intelligence sources, dispersed and with nonexistent signatures, that then feed information to support kill chains further ashore. And those kill chains will largely revolve around moving and firing Vietnam's expanded inventory of antiship missiles.

Indonesia

Indonesia is in the middle of modernizing its armed forces along a number of lines of effort, but not primarily to meet the problem of an assertive PLAN. Indonesia faces maritime disputes with multiple neighboring countries, although they have been deempha-

[57] Nguyen Khac Giang, *The Vietnamese Maritime Militia: Myths and Realities*, IDSS Paper no. 040 (Singapore: S. Rajaratnam School of International Studies, 2022).
[58] *Defense Primer: Navy Distributed Maritime Operations (DMO) Concept,* version 2 (Washington, DC: Congressional Research Service, 2024).

sized lately, and it has more irregular concerns with waterborne migration, piracy, and potential insurgencies in remote provinces.

Jakarta has significantly upgraded its approach to maritime security by establishing Bakamla—a coastguard agency with jurisdiction over all typical coastguard missions—and passing omnibus legislation to more clearly delineate civilian agency and military roles in defending maritime borders.[59]

These changes are occurring in a greater context of Indonesia's attempt to build out a minimum essential force by 2025. For its navy, Indonesia has set rather lofty goals, which are unlikely to be met. This is primarily due to inter-Service rivalry and the sordid bureaucratic politics of the Indonesian National Armed Forces (the TNI).[60] The TNI is overwhelmingly dominated by its army's priorities, and its navy's desired high-end platforms are expensive, difficult to build, and now must be split alongside Bakamla's wish lists as well.

Indonesia has had notable but overlooked success in its domestic shipbuilding sector. However, this success is primarily confined to small, fast, missile-armed attack craft such as the *Klewang*-class, an indigenous trimaran design with antiship missiles. This partly reflects the cost benefit of cheaper, mobile, lethal platforms for a resource-constrained navy, but also the adherence in the TNI to the "flash-point defense" concept that has influenced Indonesian force development since 2009.[61]

Flash-point defense emphasizes stronger military presence at the outer edges of the Indonesian archipelago, where secessionism, piracy, and coercion by external powers (including, but not limited to, China and Southeast Asian neighbors) is most likely. However, inter-Service rivalry is hampering implementation ef-

[59] Joseph Tertia, "Indonesia's Omnibus Bill on Maritime Security: The Making of a Global Maritime Hub?," *Diplomat*, 27 January 2021.
[60] Gregory Vincent Raymond, "Naval Modernization in Southeast Asia: Under the Shadow of Army Dominance?," *Contemporary Southeast Asia* 39, no. 1 (2017): 149–77.
[61] Evan A. Laksmana, "The Enduring Strategic Trinity: Explaining Indonesia's Geopolitical Architecture," *Journal of the Indian Ocean Region* 7, no. 1 (2011): 95–116, https://doi.org/10.1080/19480881.2011.587333.

forts, as Indonesia's armed forces fight over limited resources and political advantage. To this end, Indonesia has inaugurated a new tri-Service military base on Natuna island that will force the Services to work together for joint operations, and at Indonesia's gateway to the South China Sea.[62]

The goals for flash-point defense are aligned to what *Force Design* is orienting the Marine Corps for: it is an attempt to maximize the utility of military forces in remote regions that nonetheless have strategic significance. For Indonesia, the Natunas qualifies as one such example, but it is also an archipelago comprising thousands of islands. The two most vital straits connecting Southeast Asia to the rest of the world run through Indonesian territory, the Malacca and Sunda Straits, to be precise. Maritime security in peacetime in these areas is an utmost priority. In wartime, these same areas become pivotal for sea control reasons. Indonesia's armed forces, from multidomain bases astride these sea lanes, can greatly influence the naval campaigns of any force operating in the South China Sea, South Pacific, or Indian ocean.

Of the three military trends elaborated above, Vietnam, the Philippines, and Indonesia respectively represent the three most dominant military traditions of Southeast Asia. The Philippines military is designed similar to Western militaries, in the vein of the United States, to ensure interoperability with its counterparts. Vietnam inherited a Maoist military tradition from the PRC and Whampoa Military Academy of the then-Republic of China, which has been improved on and adapted by national liberation movements across mainland Southeast Asia.[63] Indonesia, near-undefinable due to its steadfastly nonaligned nature, possesses some of the most strategically significant littorals in all of East, Southeast, and South Asia, owing to the fact that 60 percent of the

[62] Evan A. Laksmana, "Why Indonesia's New Natuna Base Is Not About Deterring China," Asia Maritime Transparency Initiative, 25 January 2019.
[63] Christopher E. Goscha, "Building Force: Asian Origins of Twentieth-Century Military Science in Vietnam (1905–54)," *Journal of Southeast Asian Studies* 34, no. 3 (2003): 535–60, https://doi.org/10.1017/S002246340300047X.

world's trade relies on access to the straits Indonesia surrounds or abuts.[64]

What the three very different militaries and countries share in common is a specific security threat, and the goal they are modernizing toward. The security threat is the realistic possibility of a clash with an overwhelmingly stronger PLA that claims their territory. The goal is joint coastal defense to asymmetrically counter the PLA's advantage. For the Philippines and Indonesia, that means integrating the Services to secure and hold outlying islands from external threats. For Vietnam, jointness comes from the cooperation between paramilitaries and regular military units under the conditions of local people's war. This is the same goal for which *Force Design* is restructuring the Corps to excel.

A special mention here may go to Taiwan, which is not a Southeast Asian country but is a South China Sea claimant pursuing military reforms that are remarkably close to Southeast Asian contemporaries. Taiwan's newly announced Littoral Combat Command and its planned approach to defending Taiwanese territory bears a striking similarity to the littoral operational area spelled out in the EABO concept, minus EABO's consideration of air corridors and air support to littoral operations.[65]

Conclusion: Mutual Inspiration

The lingering question is whether Southeast Asian militaries are learning from *Force Design*'s example. Some Southeast Asian countries, namely those with significant stakes in the South China Sea, such as Indonesia, Vietnam, and the Philippines, appear to be aligned with *Force Design*'s goals and concepts, moving toward dispersed, powerful units armed with cheap antiship weaponry and multidomain lift and logistics that allow for intense

[64] "Geoeconomic Crossroads: The Strait of Malacca's Impact on Regional Trade," National Bureau of Asian Research, 5 October 2023.
[65] Tso-Juei Hsu, "Taiwan to Establish Littoral Combat Command in 2026," *Naval News*, 18 April 2024.

dilemmas to be placed on an adversary in any given naval campaign.

However, all of these reforms for all countries mentioned were trendlines long before any details of *Force Design* were public, and they appear to be outliers when compared to Southeast Asia as a whole. In this case, it is probably not accurate that the innovations espoused by *Force Design* diffused outward to Southeast Asia as if on a point-to-point relationship. Instead, something more interesting may be happening: Southeast Asian militaries have mutual inspiration with the architects of *Force Design*.

This follows the traditional cycle of Southeast Asian military history. As blue-water navies grow more powerful and threaten littoral polities, those same polities begin to look for options to mitigate those navies' advantages, primarily by holding them vulnerable from the shoreline. A complex network of novel individual military systems and concepts—drones, satellite-based reconnaissance and imaging, better and more mobile antiship missiles, portable tactical communication systems—have diffused out and made coastal defense and mobile archipelagic defense more doable and cost-effective than ever before. These countries and the U.S. Marine Corps are converging toward a common standard for what blue-green integration means, and both are exploring how to make use of austere basing locations. For the militaries mentioned in this chapter, austerity is an inevitability borne from resourcing constraints. For the Corps, it is a necessity borne from ABO issues.

Both sides are converging on solutions to solve this problem and more, and both sides are likely to learn and experiment on each other's advances. This is the prime example of military diffusion across a vast region, wherein facing the same overarching security concerns and witnessing similar solutions across borders and time, many small or middle powers begin converging toward the same military innovations. The Marine Corps has already practiced and rehearsed with Indo-Pacific counterparts, and if the mutual inspiration and convergence theory of this chapter holds

true in the future, security cooperation and joint training activities will only grow as partner-nations conclude their force structures and national security objectives remain aligned. The best way to contextualize *Force Design*, then, is that it is a standard-bearer in many ways for how to approach littoral operations but is a sign the Corps is moving toward its historical Southeast Asian analogues, who first started taking advantage of the strategic terrain of the region's waterways and coastlines when first threatened by superior naval firepower.

Force Design may be a stark departure from the previous perceived strengths and mission of the U.S. Marine Corps. This has led to no small number of complaints by prominent military thinkers, experts, and even former Commandants, allied under the banner of "Chowder II," all for the purpose of dissuading the Marine Corps from embarking on this radical new force structure.[66] However, some of these complaints miss the overall shift among world militaries to reorient their culture to better focus on strategic terrain and adapt to the naval campaigns in the future—especially those militaries in the Indo-Pacific most exposed to the pacing threat of China.

[66] John J. Sheehan and James Amos, "Former Marine Generals: 'Our Concerns with Force Design 2030'," *National Interest*, 12 December 2022.

Chapter
4

The Logistical Underpinning of Combined Operations

Lessons from Burma

By Rosella Cappella Zielinski, PhD, and Ryan Grauer, PhD

Introduction

Since 1945, the United States has enjoyed nearly uncontested movement of troops and materiel to and throughout different theaters of operations. Accordingly, strategic planners have come to discount the impact of logistical considerations on operational feasibility, especially in combined operations with allies and partners. In a future war, the United States would be required to transport its forces and their associated equipment and supplies to theater, land them on shore, deploy them to the battlefront, and resupply and reinforce them throughout an operation. All of this requires control of land, sea, and air lines of communication; routes that have the appropriate infrastructure; transport equipment; and trained personnel—considerable hurdles that must be cleared before an operation can be attempted. Fighting alongside allies and partners in a future war would then introduce further logistical difficulties. The resources required to equip and supply forces raised and trained by different countries would need to be procured; the interoperability of logistics equipment, systems, and processes would need to be ensured; and deconfliction of logistics

efforts along shared lines of communication and distribution nodes would need to be achieved to make combined operations feasible. If such efforts are to be made under conditions of contested logistics, wherein supply lines, transport infrastructure and equipment, and supply depots are subject to kinetic and nonkinetic interdiction, then the hurdles to be cleared are both increased in number and raised in height for the forces seeking to combine their combat efforts, and ignoring or downplaying logistical concerns is likely to undermine efforts to field and fight effectively with a multinational force.

A future major war in the Indo-Pacific would present perhaps the greatest array of logistical challenges that the United States and its partners will have ever faced: they would be forced to transport troops, equipment, and supplies over vast distances; coordinate the logistical requirements and processes of myriad units and systems; and overcome new and diverse kinetic and nonkinetic interdiction challenges threatening supply efforts made everywhere from the home front to the last mile to the battlefront, all while fighting a nuclear-armed great power adversary. Aware of many challenges a war in the Indo-Pacific would pose, American strategic and military planners have been strengthening existing partnerships, assessing the willingness of potential partners to fight alongside the United States, and investing in the armed forces' logistical capacities to deploy, fight, and win in the region.[1] While such efforts are necessary, it is crucial to push further and invest in a combined logistical capacity to ensure all potential partners can move, supply, and sustain forces and equipment in-theater to best position the collective to fight and win any future war. This requires ensuring the United States is prepared not only to transport

[1] *Indo-Pacific Strategy of the United States* (Washington, DC: White House, 2022); Jim Garamone, "Tailoring U.S. Outreach to Indo-Pacific Allies, Partners," DOD News, 15 June 2023; and Michael J. Mazarr et al., *U.S. Major Combat Operations in the Indo-Pacific* (Santa Monica, CA: Rand, 2023), https://doi.org/10.7249/RRA967-2.

its own troops and equipment to theater, but also those of allies and partners as necessary, crosstrain allies and partners on American transport equipment, promote logistical interoperability, and build up systems to ensure deconfliction in logistical systems and processes.

Failure to undertake such efforts is likely to result in the underprovision of collective logistical capacity and exacerbate existing challenges within the coalition regarding burden sharing, operational planning, and combat commitments; as seen in historical cases, these problems can lead to the abandonment of planned operations. This chapter illustrates this dynamic through an examination of how Allied partner logistical capacities, or lack thereof, shaped and ultimately undermined a planned combined British, American, and Chinese operation against Japanese forces occupying Burma during World War II. Operation Anakim was to be the first major combined offensive to retake Burma after the Japanese had conquered the territory but, much to the chagrin of U.S. president Franklin Delano Roosevelt and members of the American Joint Chiefs of Staff, the British and Chinese refused to execute the plan when logistical shortcomings endangered their forces. The lack of combined logistical capability delayed the Allied push into Burma for months, allowing the Japanese more time to both entrench their forces and launch an offensive of their own against the British position in India.

Although Operation Anakim is 80 years in the past, the challenges it posed to the Allies are similar in many ways to those that contemporary strategists and planners must consider as they contemplate a potential future war in the Indo-Pacific. First, fighting in the China-Burma-India (CBI) theater then and the Indo-Pacific today features multiple partners, some native to the region and some external. Second, both cases involve allies and partners that have some familiarity with one another but do not enjoy anything like the institutionalized, decades-long relationships that have been fostered by the North Atlantic Treaty Organization

(NATO). Third, the Allies in the CBI were fighting an entrenched adversary convinced not only of its right to rule the territory it occupied but also of the strategic need to prevent the territory from falling into the hands of its enemies, much like the opponent the United States and its partners would face in a future war in the Indo-Pacific. Fourth, a lack of well-developed ports, airfields, and road and rail transportation networks is common across the cases; the deficiencies required concerted remedial efforts to establish and maintain logistical capabilities during World War II and, absent further efforts in the present day, will do so in a future war in the Indo-Pacific. Finally, contested logistics did and will make all combined operational efforts more difficult than those the United States and its partners have attempted since the end of World War II. These similarities suggest that there are important lessons to be learned from the Allied experience in Burma, and we return to present-day implications of our investigation of the case in the conclusion of this chapter.

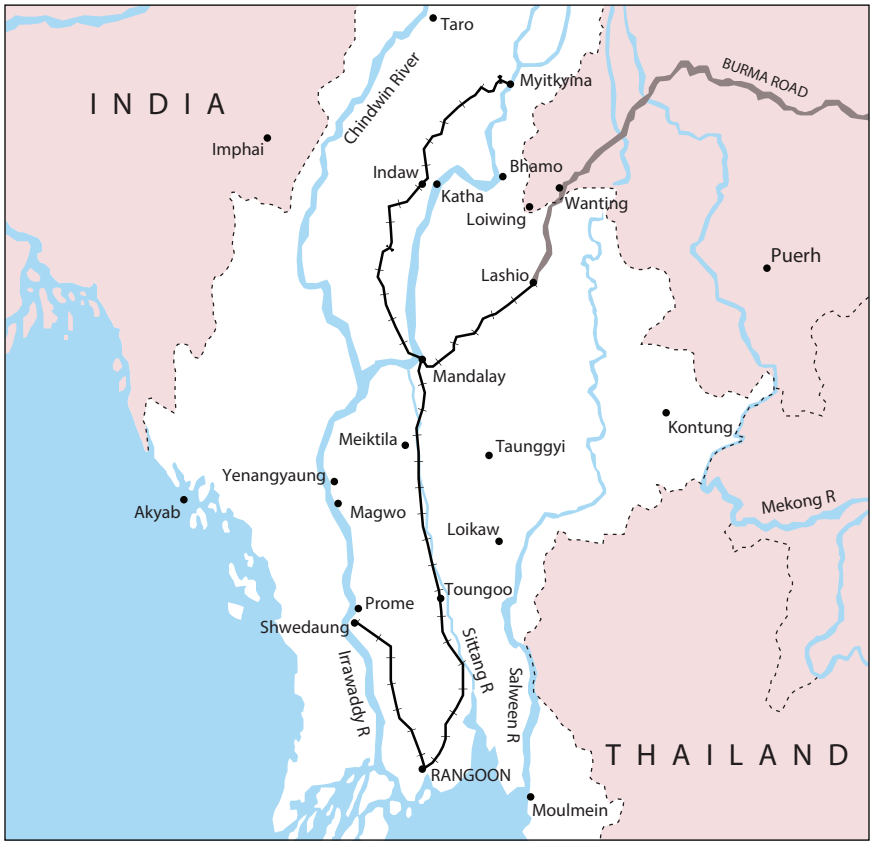
Planning and Abandoning Operation Anakim

Background: Japanese Invasion of Burma

For the United States, CBI was, if not forgotten as some historians suggest, a relatively neglected theater, taking a back seat to Europe and the Pacific and host to relatively few American servicemembers.[2] Yet, the Burma Campaign waged there was the longest continuously contested fight of World War II and had vast implications for the Allied war effort in the Pacific. For the Chinese, facing a Japanese naval blockade, all Lend-Lease materiel reached them via the 2,100-mile Burma Road.[3] For the Americans, particularly in 1942–43, propping up China through provision of Lend-lease supplies was

[2] David W. Hogan, *India-Burma, 2 April 1942–28 January 1945* (Washington, DC: U.S. Army Center of Military History, 2019), 29.
[3] Charles F. Romanus and Riley Sunderland, *China-Burma-India Theater: Stilwell's Mission to China* (Washington, DC: U.S. Army Center of Military History, 1987), 13–21, 238.

Map 1. Map of Burma, 1942



Source: Clayton R. Newell, *Burma, 1942* (Carlisle Barracks, PA: U.S. Army Center of Military History, 1995), 7, adapted by MCUP.

seen as an essential step toward maintaining pressure on the Japanese on the Asian continent and opening pathways toward eventual air strikes on the home islands from Chinese bases.[4] For the British, Japan's capture of Burma represented a crucial loss of territory and positioned the Japanese forces for an invasion of India, the crown jewel of the British Empire.

[4] "C.C.S. 153 (Revised): Situation to Be Created in the Eastern Theater (Pacific and Burma) in 1943," in *Casablanca Conference, January 1943: Papers and Minutes of Meetings* (Washington, DC: Office of the Combined Chiefs of Staff, 1943), 4–7.

Burma was no less critical for Japan than for the Allies. The Japanese, seeking to cut the sole lifeline of aid to China and thereby force Chinese capitulation on the Asian continent, invaded Burma on 12 December 1941, less than a week after the bombing of Pearl Harbor, Hawaii. The invasion, initially intended only to capture the Burmese capital at Rangoon, succeeded beyond the attackers' expectations. The Imperial Japanese Army, with support from Thai and some Burmese forces, swiftly drove north, pushing the British, Chinese, and a small group of American volunteer forces from the country. By the onset of the monsoon season in May 1942, British forces and several Chinese units led by American officers had retreated to India while the remaining Chinese troops withdrew to China. The Burma Road, connecting Indian supply depots with China, had been severed.

The Japanese were then able to entrench themselves in Burma with secure, robust lines of communication through Thailand. A memo drafted by British field marshal Archibald Wavell in February 1943 noted the strength of Japanese land forces in Burma and their ability to resupply:

> Although Japanese land forces at present in Burma are estimated at four or possibly five divisions, they are unlikely to be short of land forces and could reinforce at need provided they had stocked up country beforehand. Shipping now going in is more than they need for troops at present in country or for export of rice. We assume therefore that they are stocking up, and that they may dispose eight divisions in Burma when a main offensive takes place.[5]

A month later, Wavell informed the Allies that the western coast of Burma was also being reinforced: "I am afraid Akyab is

[5] Wavell to Chiefs of Staff, 37949/C.O.S, 10 February 1943, Combined Operations Headquarters, Records of the Ministry of Defence, DEFE 2/71, National Archives, Kew, London, UK.

now out of our grasp as enemy has been greatly reinforced and has made strong beach defenses at all practicable landing places."[6]

After the invasion, the Allies continuously debated when and how to reopen the Burma Road. The Allies developed plans for a variety of combined operations, perhaps the most prominent of which was Operation Anakim. That operation, conceived in the second half of 1942 and planned most intensely in early 1943 with the intention of launch in fall 1943, was meant to be a large-scale offensive to recapture all of Burma. It would be executed primarily by British forces with aid from U.S.-led Chinese troops in India and additional Chinese units attacking from China. The multipronged operation would feature land and air operations from Assam into Burma via Ledo and Imphal as well as an advance by Chinese forces from Yunnan.[7] Additional amphibious operations were to take place in the Bay of Bengal against the Burmese coast with the purpose of interrupting Japanese communications between the coast and their northern front as well as Japanese sea communications into Burma.

Even though China's economy, warmaking capability, and ultimate political survival was hanging by a thread, American strategy in the Pacific was contingent on supplies flowing through the Burma pipeline to help ensure that China remained in the war, and Britain's hold on Indian territory was increasingly threatened by the Japanese build-up in Burma, Anakim was abandoned. It was ultimately the partners' inability to overcome logistical hurdles that led to their decision to postpone and then ultimately scrap the operation.

Getting to Yes on Anakim

While all three partners operating in CBI saw the Japanese incursion to and continued possession of Burma as a significant problem in the

[6] "Wavell to Chiefs of the Imperial General Staff, 40317/G," 1 March 1943, Combined Operations Headquarters, Records of the Ministry of Defence, DEFE 2/72, National Archives, Kew, London, UK.

[7] Romanus and Sunderland, *Stilwell's Mission to China*, 273.

overall course of the war, they disagreed about the stakes of an operation like Anakim in the context of their larger strategic objectives in the war. At one end of the spectrum, British political and military elites did not view Anakim as a high priority. Despite the Japanese holding a robust and increasingly dug-in position at the doorstep of India, the British were doggedly committed to a Germany-first strategy.[8] This point is made clear in a British Joint Planning Staff document prepared in advance of the Casablanca Conference held in January 1943; in it, British planners noted their assumptions, including that the quickest way to end the war would be to eliminate Germany first and then turn to Japan, and wrote: "Detailed plans for operations to reopen the Burma Road during the winter of 1943–44 will also be made. It is not possible at this stage to say by when the forces required for this operation could be provided without detracting seriously from the defeat of Germany."[9]

For the Chinese, an operation like Anakim was a higher priority, as it would help ensure delivery of the Lend-Lease aid Generalissimo Chiang Kai-shek needed to fight an existential war against not only the Japanese invaders, but also Mao Zedong and the Communists. Chinese delegates to the Trident Conference held in May 1943, when the British and Americans were moving away from Anakim, pressed for continued commitment to the operation by underscoring the dire straits in China; they noted that

> inflation had taken place; there was economic distress; China had borne long years of war; and the Japanese were adopting the policy of wheedling rather than terrorizing the people. Throughout the Chinese Army and indeed the people, the plan to retake Burma in 1943 was an open secret. If not

[8] "The Chiefs of Staff Conference, ABC-4, JCCSs-1," Annex 1, in *Proceedings of the American-British Joint Chiefs of Staff Conferences Held in Washington, D.C., on Twelve Occasions Between December 24, 1941 and January 14, 1942* (Washington, DC: Joint History Office, Joint Chiefs of Staff, 1942).

[9] "C.C.S. 153/1: Situation to Be Created in the Eastern Theater (Pacific and Burma) in 1943," in *Casablanca Conference, January 1943: Papers and Minutes of Meetings*, 8–10.

> undertaken, they would believe themselves abandoned by the Allies and suspect that the latter did not intend to achieve the unconditional surrender of Japan by force of arms.[10]

Increased provision of supplies to China was key to ameliorating these problems and defeating the Japanese; while aerial transport over "the Hump" of the Himalayas helped, more equipment and assistance than could be sent by air was needed. To that end, Dr. T. V. Soong, presenting Chiang's views at the conference, argued that "the Chinese would do everything possible to meet their share of the operation. He hoped to be informed of the availability of the Allied forces. He asked only that the decisions taken at Casablanca with regard to the offensive in Burma be implemented."[11]

For the United States, Anakim was, if anything, a higher priority than it was for the Chinese. Defeat of the Japanese, for American strategists and planners, turned on keeping China in the war and exploiting the geographical positioning of the country to launch decisive attacks against the adversary. At a U.S. Joint Chiefs of Staff meeting at the Casablanca Conference on 16 January 1943, Chief of Naval Operations Admiral Ernest King was clear: "The key to our successful attack on the Japanese homeland is the geographical position and the manpower of China; if we attempt to beat our way up through the Netherlands East Indies, we shall make extremely slow progress."[12] The best way to achieve this end, then, was to "open the line of communication with China via Burma [. . . so] as to attack enemy line of communication in Formosa Straits and along the cost of China, perhaps bomb

[10] "C.C.S. 86th Meeting, Minutes of Meeting Held in The Board of Governors Room," in *Trident Conference, May 1943: Papers and Minutes of Meetings* (Washington, DC: Office of the Combined Chiefs of Staff, 1943), 375–86.
[11] "C.C.S. 86th Meeting, Minutes of Meeting Held in The Board of Governors Room."
[12] "J.C.S. 52nd Meeting, Minutes of Meeting Held at Anfa Camp," in *Casablanca Conference, January 1943: Joint Chiefs of Staff Minutes of Meetings*, 13–21.

Japan."[13] Operation Anakim was therefore "of such importance in respect of its objective . . . as to merit that priority which may be found indispensable to mount it."[14] Political and military elites at higher levels also regarded Anakim as a pressing priority. President Roosevelt made a case similar to that of the Chinese delegates, arguing to Prime Minister Winston Churchill that "the effects of help to China would be largely political. A small effort to send aid would have a tremendously favorable effect on Chinese morale. The Generalissimo has been disappointed with regard to Burma operations."[15] General George C. Marshall, Chief of Staff of the U.S. Army, was more blunt when speaking to his British counterparts, stating categorically that "unless Operation Anakim could be undertaken, he felt that a situation might arise in the Pacific at any time that would necessitate the United States regretfully withdrawing from the commitments in the European theater."[16]

Despite their different views of the stakes involved, the vehemence of the Americans ultimately led to the Allies agreeing to pursue an offensive operation in Burma. Anakim was to be executed in November 1943, although the British were careful to ensure that the language authorizing the planning reflected their preference to "concentrate on defeating Germany first and then to concentrate our combined resources against Japan."[17]

Logistical Difficulties

Agreeing to plan Operation Anakim was only the first step to execution, however. As Allied planners began to develop and refine

[13] "C.C.S. 168: Conduct of the War in the Pacific Theater in 1943," in *Casablanca Conference, January 1943: Papers and Minutes of Meetings*, 95–98.
[14] "C.C.S. 168: Conduct of the War in the Pacific Theater in 1943."
[15] "ANFA 2nd Meeting, Minutes of Meeting Held at Anfa Camp," in *Casablanca Conference, January 1943: Papers and Minutes of Meetings*, 142–53.
[16] "C.C.S. 59th Meeting, Minutes of Meeting Held at Anfa Camp," in *Casablanca Conference, January 1943: Papers and Minutes of Meetings*, 225–31.
[17] "C.C.S. 153/1: Situation to Be Created in the Eastern Theater (Pacific and Burma) in 1943."

the various elements of the operation, it quickly became clear that the combined, multipronged offensive featuring contributions from all three partners would be significantly more difficult to carry out than anticipated.

Many of the problems stemmed from the fact that Burma, due to its topography, climate, and lack of infrastructure, was a uniquely challenging environment in which to operate. Burma has the tallest mountains in the world, the Himalayas, to the north and wide, turbulent, nearly impassable rivers (the Salween, Sittang, and Irrawaddy) in the south. It has an intense monsoon season—perhaps the most torrential and violent of any monsoon in the world—and those rains create dense jungle and permit diseases such as malaria to thrive. Given such conditions, it is unsurprising that, in a territory that had historically not been subject to centralized control, there was little in the way of reliable transport infrastructure that could enable efficient movement of large numbers of military forces into and throughout the country.

In early February 1943, American, British, and Chinese military representatives considered the problems of operations in Burma and identified three primary challenges that would have to be overcome: a) northern Burma was separated from India by nearly 100 miles of mountainous, malarial territory that lacked sufficient road networks for wheeled transport; b) the west coast of Burma had a few suitable landing places, but they fed into territory that was also mountainous and devoid of necessary roads; and c) landing points along the southwest coast of the country were complicated by mangrove swamps, narrow creeks, and mud except for around more populated areas.[18] Accordingly, Anakim had to be an all-or-nothing affair; the Allied representatives unanimously agreed that "Burma thus presents extremely strong natural position. Only chance of success appears to be to extend enemy to utmost by concentric attacks with the object of

[18] "Wavell to Chiefs of Staff, 37949/C.O.S."

engaging him simultaneously on every possible route of entry into Burma."[19]

There were high hurdles to executing such an operation, however. Starting in the north, the Allies had poor lines of communication between the port of Calcutta, where British and American troops and supplies would arrive in-theater, and Assam, whence Anakim ground attacks would be launched. Indeed, the rail system was so underdeveloped that the Brahmaputra River in India would have to be "crossed by train ferries since there was no bridge, and the only railways available were single track meter gauge."[20] Once ground forces were in place at Imphal and Ledo, they would then have to attack into Burma along roads that they would need to build while advancing. These ground attacks would need to be supported by landings along the west coast designed to capture airfields, both to prevent Japanese air attacks and facilitate aerial resupply. Such a task would be quite difficult, given the terrain over which the small groups of forces that could be landed on the west coast would have to advance.[21] In the south, the unforgiving coastal terrain would necessitate a two-pronged attack up the Irrawaddy River toward Rangoon and along the Salween River toward Moulmein (now Mawlamyine), to capture the airfield that could be used by the Japanese to launch attacks in defense of the capital.[22] Given the proximity of both waterways to neighboring Thailand, where Japan had additional troops and more developed lines of communication, the force would face a persistent threat on its eastern flank.[23]

[19] "Wavell to Chiefs of Staff, 37949/C.O.S."
[20] "C.C.S. 84th Meeting, Minutes of Meeting Held in The Board of Governors Room," in *Trident Conference, May 1943: Papers and Minutes of Meetings*, 343–61.
[21] "C.C.S. 84th Meeting, Minutes of Meeting Held in The Board of Governors Room."
[22] "C.C.S. 55th Meeting, Minutes of Meeting Held at Anfa Camp," in *Casablanca Conference, January 1943: Papers and Minutes of Meetings*, 169–82.
[23] "C.C.S. 84th Meeting, Minutes of Meeting Held in the Board of Governors Room."

The Allies' ability to overcome these challenges depended in large part on naval supremacy in the Bay of Bengal.[24] Such domination would both facilitate the landings on the western and southern coasts and enable carrier-based air operations in support of both the advancing amphibious units and the land attacks in the north.[25] Naval supremacy could not on its own ensure execution of the operation, though. Anakim depended in large part on the availability of shipping and landing craft that could be used for the western and southern assaults. Here, the Allies ran into unresolvable conflicts. Recalling that the British insisted on the inclusion of language privileging operations against Germany in the authorization of planning for Anakim, the document developed by planners in London for discussion at the Casablanca Conference makes clear the problem:

1. If NO major amphibious operations are carried out elsewhere in 1943, the assault shipping and landing craft [for Anakim] could be found by the British by October 1, 1943.
2. If Operation BRIMSTONE [a plan to capture Sardinia] is carried out no later than end of June 1943, and no other amphibious operation takes place, the assault shipping and landing craft could be found by the British by December 1, 1943 in Indian waters. This would permit the assault on Rangoon about December 30, 1943.
3. If HUSKY [a plan to capture Sicily] is carried out after June 1943—or any other operation, such as the Dodecanese, in addition to BRIMSTONE—it will not be possible to provide the assault shipping and landing craft for ANAKIM from British sources until about February 1944.[26]

[24] "C.C.S. 55th Meeting, Minutes of Meeting Held at Anfa Camp."
[25] "C.C.S. 84th Meeting, Minutes of Meeting Held in the Board of Governors Room."
[26] The Dodecanese islands were garrisoned by Italian and British forces after Italy switched sides in 1943; the Germans invaded and captured the islands, and held them until the end of the war. Jeffrey Schultz, "The Reich Strikes Back: German Victory in the Dodecanese, October–November 1943," in *On Contested Shores: The Evolving Role of Amphibious Operations in the History of Warfare*, eds. Timothy Heck and B.A. Friedman (Quantico, VA: Marine Corps University Press, 2020), 200–17.

4. If Operation ANAKIM is carried out with British assault shipping and landing craft at any time during the winter 1943–44, it would seriously curtail the British share of any cross-channel operations in the early spring of 1944.[27]

The Americans attempted to address British concerns, arguing that the landing craft deficit could be made up by both increased production and shifting some ships built by the United States for use by forces island-hopping in the Pacific to CBI. U.S. planners were not able to convince their British counterparts, however, that they would be able to ensure the arrival of the necessary boats in time for Anakim's execution during the 1943–44 dry season.[28] More pressingly, the British highlighted the fact that the new landing craft would need crews—personnel that could not be mustered in time for Anakim. In response, the Americans promised several crews, though, crucially, not enough.[29] As a result, they could not convince their British partners that the logistical challenge of transporting the requisite forces and equipment to the western and southern coasts of Burma, as required by Anakim, could be overcome.[30]

The landing craft problem was perhaps the most significant logistical barrier to executing Anakim, but it was far from the only one. As planners considered their options for moving land forc-

[27] "C.C.S. 154, Operations in Burma, 1943, Report by British Planning Staff," in *Casablanca Conference, January 1943: Papers and Minutes of Meetings*, 11–15; and "C.C.S. 164/1, Operation ANAKIM, Provision of Forces, Report by British Planning Staff," in *Casablanca Conference, January 1943: Papers and Minutes of Meetings*, 82–83.
[28] "J.C.S. 54th Meeting, Minutes of Meeting Held at Anfa Camp," in *Casablanca Conference, January 1943: Joint Chiefs of Staff Minutes of Meetings* (Washington, DC: Office of the Combined Chiefs of Staff, 1943), 27–31; and "JSM. 875, JSM Washington to WCO London," 10 April 1943, Combined Operations Headquarters, Records of the Ministry of Defence, DEFE 2/72, National Archives, Kew, London, UK.
[29] "C.C.S. 60th Meeting, Minutes of Meeting Held at Anfa Camp," in *Casablanca Conference, January 1943: Papers and Minutes of Meetings*, 232–47.
[30] "American-British Conference Held at New Delhi in February 1943," 23 February 1943, Combined Operations Headquarters, Records of the Ministry of Defence, DEFE 2/71, National Archives, Kew, London, UK.

es through India to Imphal and Ledo, the challenges of doing so became increasingly clear. There was neither a way to bridge the Brahmaputra River in the short term, nor was there an easy way to double-track the rail route; as a consequence, the Allies would be limited to 12 pairs of trains per day in moving troops and equipment to the border with Burma.[31] Even if sufficient forces could be staged near Burma, the American-led Chinese units that would be attacking from Ledo were not making the necessary progress in road development south during the ongoing monsoon season. Add in the British and American doubts about whether the Chinese forces that were slated to attack westward into Burma from Yunnan province had sufficient supply and maintenance facilities, and there was no portion of the multipronged offensive that appeared to be logistically supportable.[32]

Abandoning Anakim

The logistical barriers to Operation Anakim led to its ultimate abandonment by the Allies. The British were the first to express doubts about the feasibility of the operation and, in late April 1943, produced a formal document laying out their objections to the offensive. Discussing both the feasibility and desirability of Anakim, the British noted that more pressing than any concerns about the capabilities of combat forces to fight well enough to achieve their assigned objectives were a) the lack of assault shipping and landing craft; b) a shortage of air assets with sufficient range to protect forces as they were transported and engaged in operations; and, especially, c) the deleterious impact diversion of effort to Burma would have on the execution and exploitation of operations in the Mediterranean, especially Operation Husky.[33] As the British dug

[31] "C.C.S. 84th Meeting, Minutes of Meeting Held in the Board of Governors Room."
[32] Joint Planning Staff, "Operations in Burma—Answer to President's Telegram No. 254," 9 January 1943, Records of the Cabinet Office, CAB 84/52/19, National Archives, Kew, London.
[33] "Operation 'Anakim'—Possible Alternatives: Draft Report by Joint Planning Staff," 26 April 1943, Records of the Cabinet Office, CAB 84/52/19, National Archives, Kew, London.

in on the landing craft issue and the Americans floated the possibility of executing Anakim without the amphibious component, Chiang Kai-shek balked at participation in the operation. He had long feared that, in the absence of an amphibious attack, the Japanese would have a free hand to reinforce their armies in Burma and, potentially, wipe out the Yunnan Force as it advanced into the country.[34] Allied commitment to the planned combined operation was falling apart.

The death knell for Anakim came during the Trident Conference in May 1943, when Churchill pressed the British case directly to Roosevelt. Recognizing the American commitment to China, Churchill questioned whether it would be better to aid China by air and "by-pass Burma" altogether. He cited recent British operations in Burma and their ineffectiveness, asserting that "he could not see how operations in the swamps of Burma would help the Chinese."[35] He even suggested an alternative in "an operation against the tip of Sumatra and the waist of Malaya at Penang."[36] An operation like "Torch should be sought," Churchill argued. "It would be much better to baffle the enemy by surprise than to continue with the development of the obvious."[37] Roosevelt and the Americans, recognizing that the British and Chinese would provide the vast majority of the troops that would be used in Anakim, acceded and Anakim was shelved.

[34] Franklin Delano Roosevelt, "Prime Minister's Personal Telegram, T48/3," 8 January 1943, Records of the Prime Minster's Office, PREM 3/143/6, National Archives, Kew, London; War Cabinet Joint Planning Staff, "J.P.(43)26(Final): Burma: Report by Joint Planning Staff," Records of the Prime Minster's Office, PREM, 3/143/2, National Archives, Kew, London; "J.C.S. 51st Meeting, Minutes of Meeting Held at Anfa Camp," in *Casablanca Conference, January 1943: Joint Chiefs of Staff Minutes of Meetings*, 8–12; "C.C.S. 90th Meeting, Minutes of Meeting Held in the Board of Governors Room," in *Trident Conference, May 1943: Papers and Minutes of Meetings*, 415–26; and "ANFA 2nd Meeting, Minutes of Meeting Held at Anfa Camp."

[35] "Combined Chiefs of Staff, Trident, Minutes, 2nd Meeting, the White House," in *Trident Conference, May 1943: Papers and Minutes of Meetings*, 263–76.

[36] "Combined Chiefs of Staff, Trident, Minutes, 1st Meeting, the White House," in *Trident Conference, May 1943: Papers and Minutes of Meetings*, 251–61.

[37] "Combined Chiefs of Staff, Trident, Minutes, 2nd Meeting, the White House."

Conclusion

It is useful to note the similarities between the Indo-Pacific operating environment and one in which the United States has operated with partners in the past. The Burma Campaign is such an analog, and it is especially revelatory with respect to a core aspect of coalition warfighting that, to date, has received less attention than it deserves. While the centrality of logistics to military operations is often noted—the famous quip of uncertain origin about amateurs talking strategy while professionals study logistics is on point—less appreciated is the potentially decisive effect a coalition's collective capacity to transport and sustain their combined forces has on the feasibility of their cooperation on the battlefield. If the United States hopes to execute combined operations with allies and partners in a future war in the Indo-Pacific, it must prepare the logistical substructure well in advance of such a conflict.

Three lessons stand out from an examination of Operation Anakim. First, in a theater in which the topography, climate, and political history have forestalled the development of robust transport and maintenance infrastructure, it is never too early to begin investing in improvements. In CBI, the rail links connecting the port of Calcutta with various depots in Assam were eventually improved, though it took an infusion of American railroading expertise and considerable numbers of troops to make the necessary changes.[38] Undertaking such efforts earlier may have enabled Anakim or something like it to have been executed during the 1943–44 dry season.

Second, it is likely that partners will not be equally capable in logistics matters, and plans must be made to draw on and combine the different comparative advantages of each belligerent participating in a combined operation. In Burma, forward thinking

[38] Louis Mountbatten (Earl of Burma), *Report to the Combined Chiefs of Staff by the Supreme Allied Commander South-East Asia, 1943–1945* (London, UK: His Majesty's Stationery Office, 1951), 14; and Romanus and Sunderland, *China-Burma-India Theater: Stilwell's Command Problems* (Washington, DC: U.S. Army Center of Military History, 1987), 265–71.

about the respective capabilities of the Allies—the United States' ability to mass produce war materiel and Britain's expertise in naval matters—could have resulted in the combination of American landing craft and British crews in numbers sufficient to affect the necessary amphibious landings on the west and southern coasts of the country.

Finally, and most importantly, the value of increased preparation in the form of exchanges, exercises, and institutionalization prior to any future war cannot be understated. While the political environment of the interwar period precluded the American and British militaries developing close ties in the run-up to World War II and, as a consequence, the belligerents were ironing out the myriad problems of wartime coordination as fighting ensued, the United States and its partners are not facing the same restrictions today. Stepping up military-to-military contacts among logistical units, building on and increasing both the frequency and complexity of logistics-oriented exercises, and concluding agreements governing the prepositioning of supplies and efforts to be made during wartime will make it more likely that the kinds of logistical problems that forced the cancellation of Anakim and permitted the Japanese more time to strengthen their defenses and attack Allied positions will not arise, or at least will not have the same effect, in the future.

Chapter
5

Ironclad Commitment

U.S. Marines Reinforcing U.S.-Philippine Defense Alliance

By Amparo Pamela Fabe

This chapter honors the memory of Colonel James "Nick" Rowe, USA

Introduction

The peace, security, and stability of the Philippines is founded on the nation's core sociopolitical values and reflected in the democratic way of life that calls for participatory governance, respect for human rights and freedoms, equality of men and women, social justice, innovation, rule of law, and equitable distribution of wealth and opportunities.[1] The Philippine Security Vision is as follows: "A free, resilient, peaceful, and prosperous archipelagic and maritime nation, at peace with itself and its neighbors, enabled and protected by reliable defense and public safety systems."[2]

As part of its distinct strategy to promote peace and stability in the Indo-Pacific region, the Philippines has notably firmed up its defense alliances with like-minded partners. The U.S.-Japan-Philippines Trilateral Summit, held in Washington, DC, on 12 April 2024, showed the deepening progression of security ties in

[1] *National Security Policy 2023–2028* (Manila, Philippines: Office of the President, National Security Council Press, 2023), 3.
[2] *National Security Policy 2023–2028*, 3.

the face of geopolitical challenges in the Indo-Pacific. President of the Philippines Ferdinand Marcos Jr. declared,

> We meet today as friends and partners, bound by a shared vision and pursuit of a peaceful, stable, and prosperous Indo-Pacific. It is a partnership, borne not out of convenience nor of expediency, but as a natural progression of a deepening relations and robust cooperation amongst our three nations, linked by a profound respect for democracy, good governance, and the rule of law.[3]

Organizational Culture of the U.S. Marine Corps

War, for the modern American servicemember, is the monotony of everyday life lived far away from home, broken up by intense moments of fear, conflict, and violence.[4] The U.S. Marine Corps understands that war remains a human endeavor and that its nature does not change, while its character can be highly variable. This means that how humans think, organize, plan, and act, takes primacy over the material means at their disposal. The Marine mindset naturally predisposes it to asymmetric war where a materially deprived but thinking enemy, made up of groups of individuals, seeks to gain time and space against the state (or coalition of states) seeking to supplant the rule of law with the rule of force. The focus on the human dynamic of war is deeply embedded in Marine lore and culture. Perhaps because of this, the infantry battalion is the *primus inter pares* (first among equals) in Marine Corps organizational culture. It is the hub around which the Marine air-ground task force's (MAGTF) aviation, logistics, and command pivot. The ground, air, logistics, and command combat elements (GCE,

[3] President Ferdinand R. Marcos Jr., "Opening Statement by President Ferdinand R. Marcos Jr. at the Trilateral Summit Meeting with U.S. President Joseph R. Biden Jr. and Japanese Prime Minister Kishida Fumio" (speech, White House, Washington, DC, 12 April 2024).

[4] Paolo G. Tripodi and Kelly Frushour, *Marines at War: Stories from Afghanistan and Iraq* (Quantico, VA: Marine Corps University Press, 2016), 1.

ACE, LCE, and CE) comprise the MAGTF, which is the foundation of the Marine Corps. MAGTFs are a self-contained and self-supporting military force able to be scaled up and down in size to suit any task they are given.[5]

The Marine Corps takes great pride in the idea that it trains as it fights and in the fact that it does more with less. The average battalion has to learn on the job after it arrives in theater. The predeployment training programs are weighed down by a litany of tasks that do not directly contribute to preparation for war. The Corps' military staff is made up of the commander, intelligence, operations, logistics, and communications. The commander's intellect, preferences, leadership, education, experience, vision, personality, and network impact success or failure. These "intangibles of command" are shared by every member of the staff and operate in all directions in the chain of command: up, down, and across. The priority the commander places on the staff functions reflect these intangibles and the task at hand. The commander's preferences and personal trust may possibly interfere with the established chains of command. A Marine Corps infantry battalion has its own combat operation center and intelligence cell of varying degrees of sophistication that rival battalion echelon organizational structures of past wars. There are three primary drivers of this innovation. Counterinsurgency (COIN) places emphasis on intelligence as a precursor to action. In COIN, all intelligence is local, requiring a depth of local knowledge across a broad range of social, cultural, and military contexts, and the low intensity of the fight permits battalion commanders to spread their companies over considerable distances, further requiring company commanders to exercise significant independence of action. The Marine Air Defense Integrated System (MADIS) is the Marine Corps' new push for modernizing its ground-based air defense (GBAD) capabilities. It is part

[5] Adam Cobb, "How US Marines Use Intelligence to Counter Irregular Adversaries: Preliminary Thoughts on Recent Operations," *Inteligencia y Seguridad* 13 (January–June 2013): 246.

of the Corps' plan to upgrade its two active low altitude air defense (LAAD) battalions, which currently rely on dismounted FIM-92 Stinger missiles and radar equipment transported in two M1114 HMMWV uparmored Humvee armament carriers per section.[6]

U.S.-Philippine Defense Relations and the Role of the Marine Corps

An inherent feature of U.S.-Philippine defense alliance is the strategic role of the U.S. Marine Corps during the three significant periods that the Philippines needed strong security support: 1889, 1951 and 2020s. The presence of the Marines Corps in the Philippines commenced during the period when the Philippines was placed under the administrative control of the U.S. Army based on the provisions of the Treaty of Paris of 10 December 1898. Three Marine battalions were sent to the Philippines with the primary mission of guarding the U.S. naval base in Cavite. The first Marine battalion's 15 officers and 260 enlisted arrived on 18 April 1889, the second battalion's 16 officers and 362 enlisted arrived on 26 July 1899, and the third battalion's 15 officers and 325 enlisted arrived on 15 December 1899. The Marines carried out an outstanding record of protecting the bases and maintaining law and order.[7]

The Marine Corps has been in the forefront of implementing the ironclad commitment of the United States in dealing with current and emerging threats within the framework of the 1951 U.S.-Philippines Mutual Defense Treaty. The main objective of the U.S. Department of Defense is to establish a combined deterrence and a capacity to resist coercion capabilities of Philippine Defense Forces. It is important to note that the Marines Corps takes the lead during the U.S.-Philippine military Balikatan exercises. The Balikatan exercises are designed to achieve seamless multidomain operations as a unified force, which allows security

[6] Cobb, "How US Marines Use Intelligence to Counter Irregular Adversaries," 249.
[7] Maj John H. Johnstone, *A Brief History of the First Marines* (Washington, DC: Historical Branch, G-3 Division, Headquarters Marine Corps, 1962), 27.

forces for any contingency and implementing the concept of integrated all-domain deterrence. The significant contribution of the Marine Corps to Philippine defense initiatives resonates in contemporary times. On 3 May 2023, U.S. secretary of defense Lloyd J. Austin III and Philippine secretary of the Department of National Defense Gilbert Teodoro established the Bilateral Defense Guidelines to modernize alliance cooperation in service of the United States and the Philippines' shared vision for a free and open Indo-Pacific region. The guidelines reaffirm that an armed attack in the Pacific, including anywhere in the South China Sea, on either of their public vessels, aircraft, or armed forces—which includes their Coast Guards—would invoke mutual defense commitments under Articles IV and V of the 1951 U.S.-Philippines Mutual Defense Treaty. Cognizant of the fact that threats may arise in several domains, encompassing land, sea, air, space, and cyberspace and take the form of asymmetric, hybrid, and irregular warfare and gray-zone tactics, the guidelines pave the way to reinforce interoperability in both conventional and nonconventional domains.

The bilateral defense guidelines featured four major components. The first component is the Philippines' defense modernization comprising the Security Sector Assistance Roadmap (SSAR), establishing priority defense platforms and force packages. This section also includes facilitating the procurement of interoperable defense platforms sourced from U.S. programs and expanding investments in nonmateriel defense capacity building, including through education and training exchanges, exercises, and other operational activities. According to the Armed Forces of the Philippines (AFP) spokesperson, Lieutenant Colonel Enrico Gil Ileto, "The SSAR involves the provision of support, training, and assistance by the United States to help the Philippines strengthen their security sectors, including defense forces. These partnerships aim

to promote stability, build capacity, and enhance the effectiveness of the partner country's security forces."[8]

The second component is improving interoperability by enhancing the combined ability to counter armed attacks on either country and deal with threats in space and cyberspace, while expanding the scope, scale, and complexity of the exercises. Another focus is to expanding cooperation on maritime security and maritime domain awareness through the conduct of combined maritime activities and utilizing the Enhanced Defense Cooperation Agreement (EDCA) to implement infrastructure improvements, promote joint use of facilities, develop humanitarian assistance and disaster relief capabilities, and rotational U.S. access to agreed locations.[9] Secretary Austin highlighted that the U.S. president's budget request for fiscal year 2025 seeks $128 million to execute 36 projects at EDCA sites, which includes the Philippines.[10]

The third component is information sharing through coordinated analysis, tabletop exercises, and training and exercises to reinvigorate bilateral planning and coordination efforts; assess bilateral requirements; and advance common objectives and approaches to shared challenges. Another area is making adaptable decision-making processes and communication procedures to support flexible, timely, whole-of-government bilateral coordination and action to respond to conventional and unconventional warfare and broadening real-time information sharing on early indicators of threats to peace and security. Additionally, there is a need to improve operational coordination and enhance information security for the protection of classified defense and military information. Philippine defense secretary Teodoro explained that

[8] Priam Nepomuceno, "Assistance Roadmap Workshop Seen to Boost PH-US Defense Ties," *Philippine News Agency*, 17 July 2023.
[9] U.S. Embassy in the Philippines, "Enhanced Defense Cooperation Agreement (EDCA) Fact Sheet," fact sheet, 20 March 2023.
[10] U.S. Department of Defense, "Readout of Secretary of Defense Lloyd J. Austin III's Meeting with Philippine President Ferdinand Marcos, Jr.," press release, 12 April 2024.

in the maritime domain, the Philippines will continue to build security alliances and stage Joint combat drills in disputed waters to defend its territorial interests.[11]

The fourth component is combatting transnational and nonconventional threats to improve cyber defense and cybersecurity cooperation to secure critical infrastructure and protect against attacks emanating from state and nonstate actors. In a meeting with the U.S. Joint Chiefs of Staff chair, General Charles Q. Brown, Secretary of Defense Teodoro stated that maintaining robust cybersecurity is important given the most aggressive attacks from state and nonstate actors in the cyberspace.[12] Moreover, there is a need for capacity-building activities to carefully deal with chemical, biological, radiological, and nuclear-related attacks and to counter the proliferation of weapons of mass destruction.[13]

President Marcos holds a high respect for the U.S. Marine Corps because he graduated from the Philippine Special Forces training in the 1970s, which had U.S. Marine Corps officers as part of its roster of training consultants. The positive image of the U.S. Marine Corps on the political leadership facilitates the development of U.S.-Philippine defense relations.

Bolstering Deterrence Capabilities through the Balikatan Exercises

The U.S. Joint Pacific Multinational Readiness Center stressed the importance of multilateral cooperation. U.S. Army general Charles A. Flynn presented four building blocks of multilateral cooperation. The first building block is to reorganize the most battle-winning mix of capabilities. The U.S. Army has deployed a security force assistance brigade, a theater fires element, and

[11] Jim Gomez, "Philippines Says It Will Forge Security Alliances and Stage Combat Drills Despite China's Opposition," Associated Press, 24 May 2024.
[12] "Teodoro Stresses Need for Stronger Cyber Defenses," Philippine News Agency, 17 July 2024.
[13] U.S. Embassy in the Philippines, "Fact Sheet: U.S.-Philippines Bilateral Defense Guidelines," fact sheet, 20 May 2023.

an information warfare directorate into areas near China. Flynn's second building block is to regenerate combined Joint warfighting capabilities by "training together, rehearsing together." The third building block is to reapply land power to create unity of effort, and the fourth block is to build enduring advantages through regional posture, "allowing our Army forces to control decisive points."[14] In addition, the U.S. Army achieves this through extensive exercises, better known as the Operation Pathways, which are continuously run throughout the year.[15]

The Balikatan exercises showed a positive impact on U.S.-Philippine defense relations through a two-pronged approach: achieving deterrence capabilities and reinforcing interoperability of all domain security operations. Additionally, the Philippine security forces acquire capability in weapons proficiency and technological applications. U.S. Marine lieutenant general Michael S. Cederholm, U.S. Exercise Joint Task Force commander of Balikatan 2024, led approximately 16,000 Filipino, American, Australian, and French servicemembers in training shoulder-to-shoulder at locations throughout the Philippines to increase proficiency in maritime security, amphibious operations, combined arms, aviation operations, and information and cyberspace operations. This 39th iteration of the exercises highlighted the multilateral cooperation between the Philippines, United States, Australia, and France. They implemented humanitarian civic assistance teams infusing $50 million (USD) in the construction of schools and medical centers while training medical providers, gifting education supplies, and building relationships with local communities. AFP major general Marvin Licudine, Philippine Balikatan 2024 director, emphasized the new collaborations considering dynamic challenges across domains.

[14] "Four Ways U.S. Army's Pacific Chief Plans to Boost Regional Land Forces," *DefenseNews*, 17 May 2024.
[15] "Army Continues Growing Partnerships in Indo-Pacific," News, Association of the United States Army, 15 May 2024.

"It's no coincidence that as democratic nations, the values we share are enshrined in our respective national anthems," said Lieutenant General Cederholm. "Those anthems talk about heroes, those that are brave, about defending freedom, and defending our respective shores from external attackers. I could not be prouder of the men and women in the field, the operational planning staffs, and all the enablers; they have truly made Balikatan 2024 an incredible success."[16]

Live-fire Drills

Philippine, U.S., and Australian military forces integrated land, sea, and air platforms to simultaneously sense, target, strike, and destroy a decommissioned ship off the western coast of Northern Luzon. The live-fire event demonstrated the capability of the force's combined fires networks, joint and combined interoperability, and the high state of readiness between the U.S. and the AFP. Philippine and U.S. platforms fired various types of ordnance, including the SSM-700K C-Star, a Spike NLOS missile, GBU-38 joint direct attack munitions, and 2.75-inch advanced precision kill weapons system rockets. Incorporated through virtual and constructive fires, the medium range capability added to the firing options in the scenario. Incorporating as many combined sensing and shooting platforms as possible, the objective of the maritime strike exercise was to test and validate the combined fires networks. To maximize the training value, the goal was to keep the target vessel afloat for as long as possible before ultimately sinking it. U.S. Marine Corps colonel Douglas Krugman, Marine Expeditionary Force officer and head of the live-fire drills, affirmed the lethality and capability of munitions to sink maritime targets. Colonel Krugman explained that this exercise demonstrated the collective capability of our combined fires networks and increasing interoperability to sense

[16] "Philippines and U.S. Conclude Balikatan Exercises, Shoulder-to-Shoulder," U.S. Marine Corps Forces Pacific, 13 May 2024.

and shoot targets from a variety of Philippine, U.S., and Australian land, sea, and air platforms. Specifically, sensing platforms, including the TPS-80 Ground/Air Task Oriented Radar and the Australian E-7 Wedgetail, relayed data to firing units who then launched ordnance at the target. Integrating sensor networks was a key component of the exercise and allowed coordinated strikes from multiple platforms. During the maritime strike, the U.S. and AFP forces led execution from the combined coordination center on Camp Aguinaldo. The Combined Coordination Center (CCC) is responsible for integrating combined command and control functions between the U.S. and Philippine Joint task forces executing the training.[17]

By integrating all-domain systems and processes across the combined and Joint force, the participating nations enhanced their interoperability and mutual defense capabilities both in the Philippines and in support of their allies and partners within the region. Participating units included: the Philippine Navy's BRP *Jose Rizal* (FF 150); the Philippine Air Force's 7th Tactical Fighter Squadron, flying the Kai FA-50 Golden Eagle; the U.S. Air Force's 13th Fighter Squadron, flying General Dynamics F-16 Fighting Falcons; Royal Australian Air Force No. 2 Squadron, flying the Boeing E-7 Wedgetail; Marine Air Control Squadron 4, 3d Marine Littoral Regiment, operating a TPS-80 Ground/Air Task Oriented Radar; Marine Air Control Group 38; 16th Special Operations Squadron, 27th Special Operations Wing, Air Force Special Operations Command, flying the Lockheed AC-130J Ghostrider; and the U.S. Navy Patrol and Reconnaissance Squadron (VP) 10, flying the Boeing P-8A Poseidon.

Balikatan is designed to strengthen bilateral interoperability, capabilities, trust, and cooperation built between the U.S. military and the AFP during decades of shared experiences. According

[17] "Philippine, U.S. Forces Demonstrate Flexibility, Operational Reach in Simultaneous Missions during Balikatan," U.S. Marine Corps Forces Pacific, 7 May 2024.

to the AFP, the exercises will cover external defense operations, cyberdefense, counterterrorism, humanitarian assistance and disaster response, and interagency capacity-building. Balikatan has three main components, according to the AFP: Command and Control Exercise (C2X), Field Training Exercise (FTX), and Humanitarian Civic Assistance (HCA). The 2024 Balikatan exercises served to build collective deterrence and illustrate the international community's united front in ensuring peace, security, and stability in the Indo-Pacific. The country observers of Balikatan include Brunei, Canada, France, Germany, Great Britain, India, Indonesia, Japan, Malaysia, New Zealand, Republic of Korea, Singapore, Thailand, and Vietnam. For the first time, the Philippine Coast Guard, Philippine National Police, Department of Information and Communications Technology, and the Office of Civil Defense also participated.[18]

Multilateral Maritime Exercise

The Philippines, United States, and France held the inaugural Multilateral Maritime Exercise in Palawan. The AFP, U.S. Indo-Pacific Command, and the French Navy simulated gunnery exercises, cross-deck operations, detect and engage, and photo exercises. Philippine vessels BRP *Davao del Sur* (LD 602) and *Ramon Alcarez* (PS 16), alongside the USS *Harpers Ferry* (LSD 49) and French Navy *Vendémiaire* (F 374), set sail from the Puerto Princesa, Palawan, port to engage in a series of dynamic exercises aimed at bolstering maritime capabilities. This multilateral exercise provided an avenue for the three countries to promote interoperability and enhance maritime capabilities.[19]

[18] Bea Cupin, " 'Largest Balikatan': What You Need to Know about the 2024 PH-US Military Exercise," *Rappler*, 17 April 2024.
[19] "Balikatan's Multilateral Maritime Exercise Kicks off," News, Armed Forces of the Philippines, 25 April 2024.

U.S.-Philippine Marine Exercise 2024

Marine Exercise 2024 was carried out by the Philippine Marine Corps and the U.S. Marine Corps, 8–19 April 2024, at Camp Iranun, Mindanao. This bilateral exercise was intended to promote military interoperability and maritime domain awareness capabilities, strengthen relationships, and expand military capabilities among participating forces. In 2022, the 11th Marine Expeditionary Unit participated in the inaugural iteration. In 2024, the 2d Battalion, 1st Marine Regiment, 1st Marine Division, participated in the combined field training exercise with the Philippine Marine Corps, focusing on maritime security operations, amphibious assault operations, counterterrorism, and special operations, including air and surface force insertion. A total of 40 U.S. Marines and 350 Filipino Marines worked together to enhance coastal defense, combined fires drill, amphibious assault operations, and small unmanned aerial system combined capabilities. Participants held cultural exchanges and community relations days that included a visit to the Siddique Elementary School in Barira, Maguindanao, on Mindanao Island. There were also subject-matter expert exchanges as part of the exercise. Philippine Marine Corps major general Ariel R. Caculitan led platoon-level infantry rehearsals to showcase and further the collective combat capabilities and camaraderie between the Philippine and U.S. Marine Corps.[20]

Humanitarian Civic Assistance

Colonel David J. Fennell, commanding officer of the 1st Civil Affairs Group, and commander of the Combined Joint Civil-Military Operations Task Force, led the Humanitarian Civic Assistance for Balikatan 2024. The Humanitarian Civic Assistance conducted operations activities and investments and was a key line of effort for I Marine Expeditionary Force (I MEF) and the Joint Forces. This

[20] Katrina Guerrero, "Balikatan Exercises: A Collective Pursuit of Maritime Security," PhilStar Global, 4 May 2024.

civil-military engagement featured the distribution of televisions, laptops, printers, and school supplies to the pupils of the Davila and Nagabungan Elementary Schools.[21]

Communication Exercises

Cope Thunder 24-1 promoted secure communications between the Philippine Air Force (PAF) and the U.S. Air Force's 644th Combat Communication Squadron to reduce barriers to sharing information during realistic training scenarios. The 644th Communication Squadron provided critical communication support to ensure mission success and foster collaboration between the two forces. The Flexible Communication Package is capable of supporting up to 2,000 combat net radio users, which enhanced the PAF's capacity to host and engage in international exercises, thereby enhancing readiness and operational efficiency.[22]

Achieving a Multidomain Task Force

The combined, Joint all-domain operations brought together and integrated security forces to secure and protect the Philippines' maritime terrain, territorial waters, and national sovereignty across the archipelago. The security forces focused on maritime terrain security operations, exercising their collective ability to secure several of the Batanes islands. For example, members of the U.S. Army's 1st Multi-Domain Task Force and their Filipino allies conducted a rapid infiltration operation into northern Luzon. A rifle company of U.S. Marines with 3d Littoral Combat Team partnered with Filipino Marines from 4th Marine Brigade to secure key maritime terrain in a scenario designed to preserve Philippine territorial integrity in support of the Philippine Archipelagic Coastal Defense Concept. The 3d Littoral Combat Team conduct-

[21] 2dLt James Estillore, "Tech for Teachers: AFP, US Chaplain's Initiative for La Union Elementary Education," U.S. Marine Forces Pacific, 23 April 2024.
[22] MSgt Darnell T. Cannady, "Enhancing Communication Capabilities with the Philippine Air Force," News, Pacific Air Forces, 15 May 2024.

ed expeditionary advanced base operations, supported maritime domain awareness, and conducted reconnaissance and counter-reconnaissance to demonstrate stand-in force capabilities to the combined and Joint force. The Batanes islands of Mavulis, Itbayat, and Batan were the training sites for the combined maritime key terrain security operations. The Lal-lo airfield and Port of Irene in the province of Cagayan served as the training sites for High Mobility Artillery Rocket System (HIMARS) operations that simulated nonlive fire strike operations against notional threats.[23]

The Joint exercises enhanced bilateral interoperability in complex littoral and coastal defense operations. Lieutenant Colonel Benjamin Blan, commander of 5th Battalion, 3d Field Artillery Regiment, 1st Multi-Domain Task Force, explained that the exercise demonstrated the versatility and interoperability of military capabilities of both countries. The first iteration of the combined and Joint all-domain training began on 24 April 2024 in Palawan at the EDCA sites located on Antonio Bautista Air Base and Balabac Island. Several training components consisted of expeditionary mine hunting, sonar hydrographic surveys, reconnaissance drills, amphibious landings, and air assault drills to secure key maritime terrain and establish expeditionary advanced bases and forward arming and refueling points. Subsequently, rapid infiltration demonstration (HIRAIN) operations that consisted of using a heavy-lift capability where the rocket system is put ashore at an expeditionary base to project combat power within the area via a HIMARS live-fire event. All these operations together facilitate the all-domain, multimodal maneuver required to operate in a rapidly evolving security environment. Units supporting the maritime key terrain security operations and HIRAIN included: the Philippine Marine Corps' 4th Marine Brigade; the U.S. Army 1st Multi-Domain Task Force; the U.S. Marine Corps' 3d Marine Littoral

[23] Maria T. Reyes, "Balikatan 24 in Philippines Enhances Joint Military Forces' Skills, Interoperability," Indo-Pacific Defense Forum, 11 June 2024.

Regiment; and the U.S. Air Force's 317th Airlift Wing and 353d Special Operations Wing.[24]

Monitoring Terrain and Safety of Location

To improve operational capability, the U.S. Marine Corps also worked on a new tool to provide a much-needed visual of the signals that command posts and units leak into the electromagnetic spectrum, possibly giving away their location. This spectrum analyzer capability is expected to work through a portable, tablet-like piece of equipment, with sensors at tactical operations centers or mounted on vehicles to allow monitoring in the field. This tool integrates with the Electronic Warfare Planning and Management Tool (EWPMT), a command-and-control capability that allows U.S. forces to visualize the potential effects of electronic warfare in the field and chart courses of action to prevent jammed capabilities. Integration of the two tools will provide a better operational picture of this invisible terrain in near-real time. The combination of a spectrum analyzer with EWMPT allows the commander to visualize and plan network-enabled operations in the electromagnetic spectrum which is critical to winning on a multidomain battlefield.[25] Moreover, the U.S. Army's extended range sensing and effects (ERSE) company tested sensing capabilities in Basco, one of the Batanes islands north of Luzon. The ERSE company provides sensing capability from the ground level within the electromagnetic spectrum up to roughly 100,000 feet. The spectrum is a critical resource in modern conflicts, as those in control of it can manipulate communications, and weapons guidance. The company is made up of three platoons: one focused on electronic warfare, another on unmanned aircraft, and another on high-altitude capabilities such as balloons. Inside the small operations center,

[24] "Philippine, US Forces Advancing Territorial Defense, Rapid Infiltration Capabilities at Balikatan," U.S. Marine Corps Forces Pacific, 3 May 2024.
[25] Mark Pomerlau, "Army Pursues Spectrum Tool to Help Keep Post Locations Secret," C4ISRNET, 7 May 2021.

American soldiers assigned to the company watched monitors displaying signals of interest gathered by electronic surveillance. With another monitor, they controlled the Kraus Hamdani Aerospace K1000 and its payload, zooming in on areas of interest and flagging things to watch. This company was able to pass data from the drone's sensors and cameras to Philippine troops, a major step in advancing interoperability between the two nations. The K1000 has been used in the Edge exercise and Project Convergence. The lightweight K1000, which features solar panels on its wings, broke the endurance record for class 2 unmanned aerial systems by flying for 76 hours. Completing an eight-hour mission tackling the winds at sea, the aircraft returned with 80 percent of its battery life. The K1000 is difficult to detect, with most sensors and radars mistaking it for a bird.[26]

The 1st Multi-Domain Task Force experimented with its structure and identified the assets that will best serve Joint and coalition forces in situations where adversaries can deny regional access. Major Seth Holt, who commanded the ERSE company, stated that they were focused on learning how the team can contribute to a flexible and easily tailorable multidomain task force through the use of specialized balloons and a small, unmanned aircraft.[27]

Counterlanding Live-Fire Drills and Joint Domain Operations

Combined forces from the AFP and U.S. military rehearsed defending the coastline during a Balikatan counterlanding live-fire exercise. Converging fires onto floating targets off the coast and mock-enemy targets along the beach, Marines and Soldiers from both nations improved their ability to defend Philippine interests within their territorial waters and exclusive economic zone. Lieu-

[26] Jen Judson, "US Army Experiments with Long-endurance Drones, Balloons in Philippines," *DefenseNews*, 14 May 2024.
[27] Judson, "US Army Experiments with Long-endurance Drones, Balloons in Philippines."

tenant General Cederholm, commanding general of the Marine Expeditionary Force, was satisfied with the skill, dedication and interoperability of U.S. and Philippine forces. The combined-arms range included multiple shots from the FGM-148 Javelin missile and M3A1 Multi-Role Anti-Armor Anti-Personnel Weapon System, small arms and machine gun fire from dug-in and maneuvering forces, and artillery fire from the Philippine Marine Corps, Philippine Army, and the U.S. Army. Major General Marvin Licudine, the U.S. Army director for the Balikatan 2024 Philippine Exercise, cited the efforts to leverage valuable insights and expertise gained to ensure regional security and stability. Participating units included the Philippine Army's 502d Brigade, the Philippine Marine Corps' 4th Marine Brigade, the U.S. Army 3-7 Field Artillery, and the U.S. Marine Corps' 3d Littoral Combat Team.[28]

Philippine and U.S. military forces who participated in Balikatan 2024 implemented a coordinated, synchronized, combined and joint all domain operations across more than 1,600 kilometers of Philippine territory over 16 days, involving more than a dozen units across the combined force. The goal of the training was to increase bilateral interoperability in complex littoral and coastal defense operations to secure and protect Philippines' maritime terrain, territorial waters and exclusive economic zone interests. According to Brigadier General Bernard Harrington, the HIRAIN training exercise demonstrated the effectiveness of combined operations between U.S. forces and the AFP, highlighting the ability to rapidly deploy critical weapons systems throughout the archipelago to collectively sense and engage military targets. Training activities include expeditionary mine hunting, sonar hydrographic surveys, reconnaissance drills, amphibious landings, and air assault drills to secure key maritime terrain and establish expeditionary advanced bases and forward arming and refueling points. These op-

[28] "Philippine, US Forces Conduct Counter-landing Exercise," IMEF Information Group, 7 May 2024.

erations facilitate the all-domain, multimodal maneuver required to operate in a rapidly evolving security environment. Colonel Sean P. Dynan, commanding officer of 15th Marine Expeditionary Unit, emphasized that the U.S. and Philippine Joint forces held the beach.29 As bilateral forces in Palawan conducted HIMARS operations, they also prepared for the HIRAIN multimodal transportation movement to Subic, Zambales and follow-on movement to Northern Luzon. Lieutenant Colonel Benjamin Blane, commander of the U.S. Army's 1st Long Range Fires Battalion, 1st Multi-Domain Task Force, further highlighted the successful execution of a complex multimodal transportation operations. Integrated units supporting operations across the combined force including these respective units: the Philippine Army's 1st Multiple Launch Rocket System Battery, 1st Army Artillery Regiment, 203d Infantry Brigade, and 5th Infantry Division; the Philippine Marine Corps' 3d and 4th Marine Brigades; U.S. Army 1st Multi-Domain Task Force; the U.S. Marine Corps' 3d Marine Littoral Regiment and 15th Marine Expeditionary Unit; the U.S. Air Force's 317th Airlift Wing and 353d Special Operations Wing; and the U.S. Navy's Assault Craft Unit 5 and USS Somerset (LPD 25).[30]

Conclusion

The strategic role of the U.S. Marine Corps in reinforcing the U.S.-Philippine Defense Alliance is all-encompassing and worthy of merit. The dedication of the U.S. Marines to their mission in protecting the Philippines started in 1889 with the deployment of three Marine battalions to protect the U.S. Navy base by dealing with security threats and upholding law and order. Fast forward to the present: the tasks of the U.S. Marines in the Philippines include the operational, technical, and strategic functions that are evident in a warfighting unit. In all its engagements with the Phil-

[29] "Philippines and US Conclude Balikatan Exercises, Shoulder-To-Shoulder."
[30] "Philippine, US Forces Advancing Territorial Defense, Rapid Infiltration Capabilities at Balikatan," U.S. Marine Forces Pacific, 3 May 2024.

ippine defense forces, the U.S. Marine Corps excelled in multi-domain task force activities, Marine maritime exercises, live-fire drills, Joint domain drills, monitoring terrain and safety of location, humanitarian and disaster risk management, community engagement, and communication exercises.

Finally, it is important to highlight the fact that the U.S. Marines are the embodiment of the values they hold dear—competency, grace, dignity, and judgment. They show their dedication in the theater of war. Captain Douglas A. Zembiec, the "Lion of Fallujah," addressed his company of Marines before they entered the city of Fallujah, Iraq, in 2004:

> When the ramp drops tomorrow, who will come out? What type of human beings will come out? Will those humans honor their country, their corps, and more important, the Marines to their left and right? When the ramps dropped from the boats on the beaches of Iwo Jima, who came out? When the ramps dropped from the helicopters in Vietnam, who came out? Honorable warriors came out to uphold the virtues and values by their actions on the battlefield. This is our time and our legacy. This is our Vietnam. This is our Okinawa. Carry the honor and traditions that formed our great nation into battle. Climb aboard, Marines![31]

[31] "Douglas A. Zembiec, Maj, USMC," USNAMemorialHall.org, accessed 14 January 2024.

Chapter
6

To the Shores of Taiwan

Preparing for a Defensive Paradigm in the Pacific

By Lieutenant Colonel Zach Ota, USMC, and
Lieutenant Colonel Austin Duncan, USMCR

Introduction

As conflict raged across Europe and Asia in 1939, the U.S. Marine Corps prepared for war. While the Marine Corps was busy refining its doctrine for amphibious operations and experimenting with capabilities that would become tied to the organization's identity for decades to come, Marines also prepared for a defensive paradigm that would define the early years of the Pacific War. In alignment with the nation's will and the requirements of the Rainbow series war plans, the Marine Corps established defensive battalions of antiair and antiship capabilities to support the Fleet by defending key terrain across the Pacific. This approach resonated with Congress who authorized the Marine Corps to increase its personnel by 35 percent, thus gaining critical capabilities and strength in the years leading to the Pacific War.[1] By the end of the war, 74,474 Marines and sailors served across 20 Marine defense battalions, marking the last time the Marine

[1] David J. Ulbrich, *Preparing for Victory: Thomas Holcomb and the Making of Modern Marine Corps, 1936–1943* (Annapolis, MD: Naval Institute Press, 2011), 73.

Corps optimized its force for a defensive campaign in the Pacific.[2] As political and military leaders across the Indo-Pacific evaluate and optimize for the current security environment, the lessons of defensive campaigns in World War II and subsequent regional conflicts offer historical insights for contemporary application.[3]

Since the initial surprise attacks that forced the United States into World War II, the United States and its allies have supported several successful operational-level defensive campaigns across a range of situations and environments that are instructive for a prospective defense of Taiwan. In the Philippines during World War II, the United States led and supported indigenous forces through a protracted campaign of resistance that facilitated the liberation of the country from initially superior occupying forces. During the Korean War, the United States led a multinational effort that rapidly assembled forces from across the world and repelled successive numerically superior surprise attacks from the Democratic Republic of Korea (DPRK) and the People's Republic of China (PRC). In both cases, the United States and allies projected power and delivered support across vast, and at times, contested spaces to enable these defensive efforts. Such support was also made possible by small, but impactful organizations designed to coordinate and cooperate with allies and partners. Allies achieved these outcomes with large and narrowly focused coalitions, but were often successful as part of large, internationally sanctioned efforts. While a strict formula cannot be applied to the success of these campaigns, as evidenced by subsequent U.S. efforts in Vietnam, the lessons from these defensive campaigns are instructive for future success.

[2] Charles D. Melson, *Condition Red: Marine Defense Battalions in World War II* (Washington, DC: Marine Corps Historical Center, 1996), 25–32.
[3] *Statement of Admiral John C. Aquilino, U.S. Navy, Commander, U.S. Indo-Pacific Command: U.S. Indo-Pacific Command Posture, before the Senate Armed Services Committee*, 118th Cong. (21 March 2024).

Offense and Defense, Army Doctrinal Publication 3-90, notes "preparation, security, disruption, massing effects, and flexibility" as characteristics of successful defensive operations.[4] These characteristics also apply at the operational level, where commanders must achieve strategic objectives through a campaign of mutually supporting operations. In such a campaign in the Pacific, defenders can prepare the operational environment by creating frameworks for multinational support and closely coordinating with allies and partners to mass forces and effects, thereby disrupting a prospective invader's decision to launch an invasion. Additionally, by building the defensive capacity of allies and partners prior to conflict, defenders increase their collective security and increase flexibility by expanding the methods in which a defensive campaign may ultimately achieve its objectives. To meet the demands of the new paradigm in the Pacific, the U.S. military must optimize its force for a defensive campaign, just as the Marine Corps did with defense battalions through World War II.

None of these approaches are revolutionary in of themselves, but the totality of the contemporary threat requires a comprehensive defensive approach with a scale and scope that is unprecedented in U.S. history. Although the United States and allies have successfully supported defenses against overwhelming odds in discrete facets, the contemporary security environment presents all these challenges simultaneously. The current lack of multilateral alliance network weakens the collective strength of such a defense, and the low likelihood of an international resolution under existing international frameworks challenges the prospects of gaining enduring and widespread multinational support. If these conditions persist, a defense of Taiwan will face the aggregate risk of these disadvantageous positions should the People's Liberation Army (PLA) attempt to forcibly unify the islands with the PRC.

[4] *Offense and Defense*, Army Doctrinal Publication 3-90 (Washington, DC: Headquarters, Department of the Army, 2012), 11.

The current defensive paradigm requires a holistic refocusing of all elements of national power alongside regional allies and partners to defend their autonomy and uphold the rules based international order.

Sustaining an Enduring Resistance: The Philippines during World War II

Prior to entry into World War II, the U.S. military postured for defensive operations in the Pacific. The United States' noncontiguous battlespace, bifurcated by the Japanese South Seas Mandate in Micronesia, prevented mutual support by air and sea lines of communication. The lack of cohesion and coordination between the United States, United Kingdom, Netherlands, Australia, and Canada in the Pacific exacerbated these fractures. Additionally, these relatively few foreign powers provided the majority of defensive means along key maritime terrain, which heightened the vulnerability of these expansive, yet isolated positions. Although cut off from major sea and air lines of communication, the resistance continued with U.S assistance delivered primarily by submarines through nearly three years of occupation, and eventually created advantageous conditions when conventional U.S. forces returned to the Philippines. Thus, these Filipino forces contributed to their eventual liberation and postwar independence.

Based on the prewar planning assumptions captured in Rainbow 5, the War Department's operational plan for a war with Japan, forces in the Philippines would likely not receive assistance from the U.S. Pacific Fleet. General Douglas A. MacArthur, serving as the military advisor to the Philippines, bears considerable responsibility for failing to develop a viable strategy to defend the Philippines and repel potential attackers. His generally optimistic assessments of the Philippine Army resulted in a false sense of se-

curity and overconfidence in the nascent Filipino force.[5] Moreover, he failed to fortify likely landing zones and was insistent on a strategy of "defense at the water's edge," vice organizing for prolonged resistance.[6] Notwithstanding fears of a surprise Japanese attack from Washington, MacArthur remained committed to his flawed strategy and did not adequately prepare for the likelihood of a campaign of prolonged resistance if conventional defenses fell before the U.S. Pacific Fleet could reinforce the combined defensive forces. When Imperial Japan severed these key lines of communication, the viability of a conventional forward defense disintegrated. Despite these challenges, Filipino soldiers organized units for prolonged resistance against their occupiers with indirect American and Australian support. Despite these challenges, active duty Philippine Army personnel independently organized to continue the fight after their conventional counterparts surrendered. The most effective of these forces were in the central and southern islands, and especially on Mindanao. With U.S. support coordinated by key U.S. officers embedded in Filipino resistance organizations and delivered through submarines of the U.S. Seventh Fleet, Filipino resistance forces reciprocally supported the maritime fight around the Philippines and enabled their eventual liberation.

As the situation in the Pacific worsened during 1942, the Allies hastily reorganized for a protracted defensive campaign. These newly joined Allies established the American, British, Dutch, and Australian Command (ABDACOM) on 1 January 1942 to defend the "Malay Barrier" of contemporary Malaysia and Indonesia against further Japanese aggression.[7] Only 10 days later, however, the Imperial Japanese Army and Navy continued their assault against the Allies and launched invasions from the Philippines across the

[5] John C. McManus, *Fire and Fortitude: The US Army in the Pacific War, 1941–1943* (New York: Caliber, 2019), 54.
[6] McManus, *Fire and Fortitude*, 63.
[7] *Reports of General MacArthur: The Campaigns of MacArthur in the Pacific*, vol. 1, CMH Pub 13-3 (Washington, DC: U.S. Army Center of Military History, 1996), 22.

Map 1. Philippines district map

Source: *Reports of General MacArthur: The Campaigns of MacArthur in the Pacific*, vol. 1 (Carlisle, PA: U.S. Army Center of Military History, 1994), 303, adapted by MCUP.

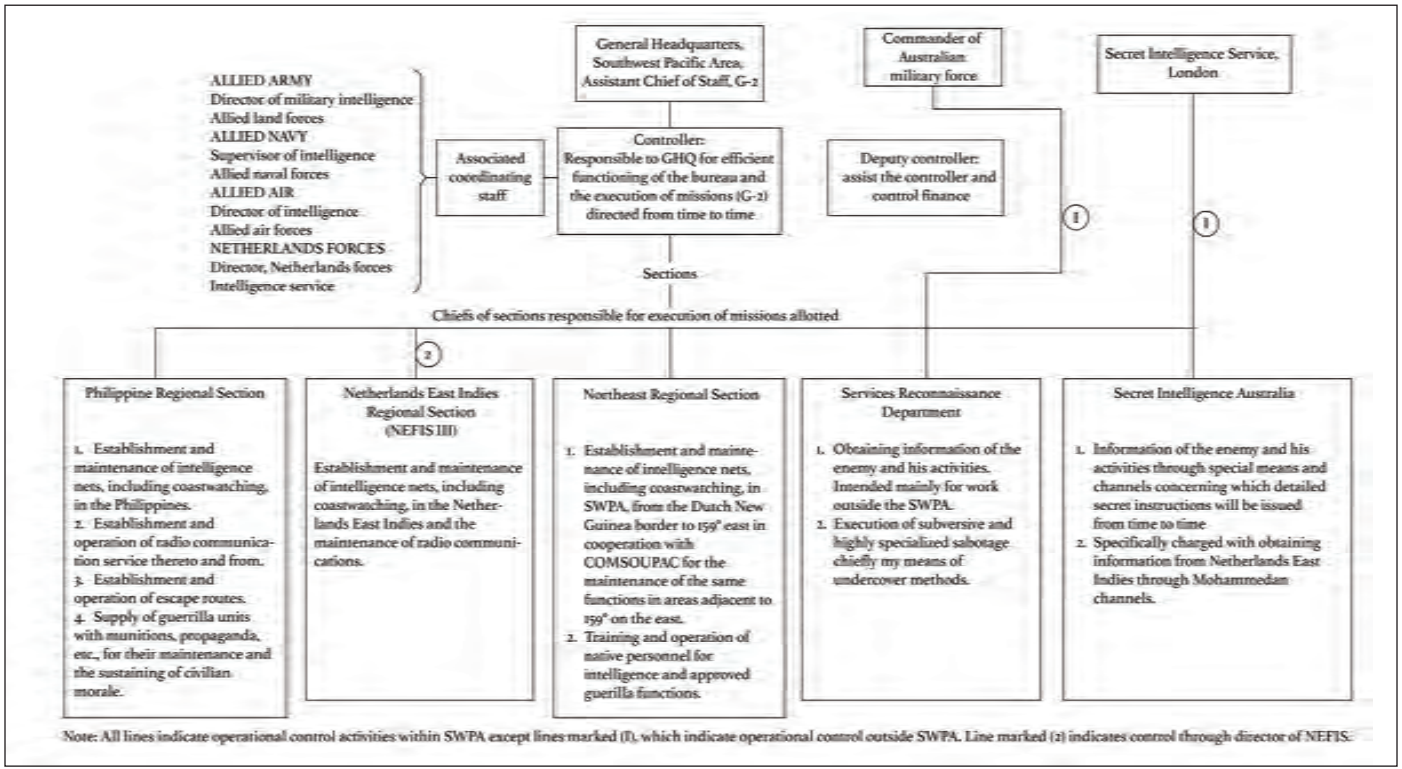
Indonesian Archipelago. British forces in Singapore subsequently surrendered on 15 February and the Allied defeat in the Battle of Java Sea on 27 February brought an end to ABDACOM and, with it, the possibility of rapidly regaining the initiative from the invading forces.

Meanwhile in the Japanese-occupied Philippines, remnants of the U.S. Army and Philippines Army organized themselves throughout the 10 prewar military districts that roughly correlated to the cultural and geographic boundaries of the archipelago. Throughout the districts, soldiers organized chains of command to coordinate operations and support across the archipelago and with U.S. forces across the theater. The forces in Mindanao, under U.S. Army Colonel Wendell W. Fertig, soon became the largest and most effective. Given its size, location in the southeast Philippine archipelago, and proximity to U.S. and Australian support, the Mindanao district grew to become a key base of support for resistance and the eventual liberation of the Philippines.

The collapse of ABDACOM and the corresponding Allied defenses in the Malay Barrier, however, complicated the challenge of supporting forces in the Philippines. With allied forces pushed back to bases in Australia and Hawai'i, conventional means of air and sea-delivered sustainment lacked the necessary protection to reach isolated positions in the western Pacific. The newly formed General Headquarters (GHQ), Southwest Pacific, sought to regain the initiative through resistance forces remaining in occupied territories. Accordingly, GHQ Southwest Pacific organized the Allied Intelligence Bureau (AIB), which subsequently established the Philippines Sub-Section and later the Philippines Regional Section to direct collections and support the resistance in the occupied archipelago.[8]

[8] *Brief History of the G-2 Section, GHQ, SWPA and Affiliated Units* (Tokyo, Japan: General Headquarters, Far East Command, Military Intelligence Section, General Staff, 1948), 37.

Chart 1. Allied Intelligence Bureau organizational chart, 16 April 1943



Source: *Brief History of the G-2 Section, GHQ, SWPA and Affiliated Units* (Tokyo, Japan: General Headquarters, Far East Command, Military Intelligence Section, 1948), 38, adapted by MCUP.

U.S. Army major Jesus A. Villamor led the first mission of Filipino soldiers embarked on submarines that clandestinely contacted the resistance movement in the Philippines on 27 December 1942.[9] Once Major Villamor and his team confirmed the viability of supporting such a resistance movement, U.S. Navy lieutenant commander Charles T. Parsons directed a larger effort on behalf of AIB to sustain the resistance forces. Through Seventh Fleet's Special Mission Unit of submarines affectionately known as Spyron, short for "spy squadron," U.S. forces resupplied and reinforced the resistance in the Philippines.[10] Between its first mission on 14 January 1943 to its last on 1 January 1945, the 19 submarines of the Special Mission Unit inserted 331 personnel, evacuated 472, and delivered approximately 1325 tons of supplies through 41 missions to the Philippines. One such Spyron submarine delivered the following in 1943:

- 6 radio sets
- 4 batteries
- 10 cases .45-caliber ammo
- 12 cases .50 ammo
- 10 cases hand grenades
- 13 Thompson submachine guns, .45-caliber
- 1 air-cooled .50-caliber machine gun
- 3 M1903 Springfield rifles
- Several cases of personal items
- Medical supplies[11]

Two submarines in particular, the USS *Narwhal* (SS 167) and the *Nautilus* (SS 168), were critical capabilities in this clandestine

[9] *Brief History of the G-2 Section, GHQ, SWPA and Affiliated Units*, 45.
[10] Larry S. Schmidt, *American Involvement in the Filipino Resistance Movement in Mindanao during the Japanese Occupation, 1942–1945* (Fort Leavenworth, KS: U.S. Army Command and General Staff College, 1982), 173.
[11] Jose Demandante Dormal, *The War in Panay: A Documentary History of the Resistance Movement in Panay during World War II* (Manila, Philippines: Diamond Historical Publications, 1952), 87.

sustainment effort. Commissioned in 1930, these two submarines could carry approximately 92 tons of cargo and had a surface displacement of approximately 1,000 tons more than their newer, but smaller attack-oriented counterparts.[12] Earlier in the war, *Nautilus* clandestinely inserted U.S. Marines in the "Makin Island" raid on Butaritari, and these two submarines reprised their cargo carrying roles many more times to support the resistance in the Philippines.

While the total tonnage of supplies may not have significantly impacted the 260,715 officially recognized Filipino resistance fighters, these shipments achieved an operational effect that was greater than the sum of its parts. By delivering radios and communications equipment, GHQ maintained the lines of communication between the resistance forces and U.S. forces fighting at sea. Just as coastwatchers under the Royal Australian Navy program reported on enemy ship movements, so did Filipino resistance fighters who reported to Allied forces via their clandestinely delivered communications systems. These reports were especially valuable as battle damage assessments for submarine attacks on Japanese shipping.[13] Later in the war, this coastwatcher network in the Philippines identified and reported enemy naval movements that enabled the U.S. Navy's Task Force 58 to destroy an Imperial Japanese Navy fleet in the Battle of the Philippine Sea.[14]

Most importantly, these shipments of supplies conveyed an American commitment to Filipino freedom. Prior to the initiation of the Special Missions Unit, renowned U.S. resistance leader Colonel Fertig reported that "civilians will succumb to the cumulative effects of Japanese propaganda" without U.S. assistance. Another U.S. resistance leader in the Philippines, Army captain Robert R. Smith, concluded, "Late—and, it would appear, often overcau-

[12] Edward Disette and Hans Christian Adamson, *Guerilla Submarines* (New York: Ballantine Books, 1972), 82.
[13] Robert R. Lapham and Bernard P. Norling, *Lapham's Raiders: Guerrillas in the Philippines, 1942–1945* (Lexington: University Press of Kentucky, 2014), 148.
[14] Robert E. Stahl, *You're No Good to Me Dead: Behind Japanese Lines in the Philippines* (Annapolis, MD: Naval Institute Press, 1995), 100–2.

tious—recognition, encouragement and help from outside the Philippines hardly nourished the guerrilla movement."[15] A Filipino commander in Panay communicated more pithily in 1943: "Still hoping grass arrives before the horse dies."[16]

GHQ remained cognizant of delivering psychological as well as material support to resistance forces in the Philippines. U.S. deliveries were stamped with the letters "ISRM," which stood for "I shall return—MacArthur." Embedded U.S. officers observed that these shipments "gave new life and hope" to the guerrillas. Captain Cris Hipolito, a commanding officer of Filipino resistance forces in northern Luzon, recalled that after receiving supplies from the American submarines, "there were not a few who kissed General MacArthur's picture in one of those 'I shall return' tube-like packs, with tears flowing profusely from their eyes."[17]

The years of support to the resistance forces in the Philippines paid dividends when U.S. forces eventually returned. By January 1945, the forces of Colonel Fertig in 10th District grew to 38,000 strong and played a key role in supporting allied landings by reporting the enemy situation and shaping the environment for U.S. military operations. During the March landings in Mindanao, the 10th District seized Dipolog airfield for 21st U.S. Infantry Regiment and cut off retreating Japanese forces at Zamboanga.[18] Later, the 10th District seized Malabang airfield ahead of Eighth Army's landing and continued to support the liberation of Mindanao. Resistance forces across the Philippines played similar roles on Negros, Panay, Leyte, Samar, and eventually Luzon.

While the defensive approach following the fall of the Philippines ultimately led to its liberation, it depended on circumstances specific to the conflict and the geography. First, the rising tide of

[15] Schmidt, *American Involvement in the Filipino Resistance Movement in Mindanao during the Japanese Occupation, 1942–1945*, 173.
[16] Charles Andrew Willoughby, *The Guerrilla Resistance Movement in the Philippines: 1941–1945* (New York: Vantage Press, 1972), 71.
[17] Lapham and Norling, *Lapham's Raiders*, 149.
[18] *Brief History of the G-2 Section, GHQ, SWPA and Affiliated Units*, 37.

Map 2. Map of Allied Intelligence Bureau and Philippines Regional Section activity

Source: *Reports of General MacArthur: The Campaigns of MacArthur in the Pacific*, vol. 1 (Carlisle, PA: U.S. Army Center of Military History, 1994), 303, adapted by MCUP.

resistance took significant time to peak. Nearly a year after Lieutenant General Wainwright surrendered U.S. forces in the Philippines, Lieutenant Commander Parsons arrived by submarine to support the burgeoning resistance movement in the islands. A trickle of submarine-delivered supplies fed these growing resistance organizations over the next year and a half until U.S. forces generated the necessary mass to project power across the Pacific and defeat the occupying forces. Additionally, the network of resistance depended on lines of communications that increasingly became more favorable to the allies due to relative mass and proximity. As U.S. air and maritime forces successively rolled back Japanese defenses across the Pacific, they also constricted Japan's ability to project and sustain its own forces, including those in the Philippines. In such an environment where both opponents had to project and sustain combat power to foreign shores, the dynamic proved a decisive advantage for the allies. Finally, the effort was made possible by the enduring will of the Filipino people that was sustained by continued U.S. support manifested in the delivery of supplies, integrating U.S. military personnel into the ranks of the resistance and, ultimately, the decision to commit significant forces to the liberation of the Philippines. Though successful, the conditions that enabled this approach did not exist in subsequent U.S.-supported defenses in the Pacific and may not exist in a future conflict.

The Strength of a Multinational Direct Effort: The Korean War

Less than five years after the liberation of the Philippines and the conclusion of World War II, the United States and Allies once again found themselves unexpectedly in a defensive campaign in the Pacific. While many of the same challenges existed in Korea as had in the Philippines—initial defeat and extended allied lines of communication—there were also significant differences between both campaigns. Most importantly, the multinational allied frame-

works established prior to the conflict and solidified in its early days enabled critical material and morale support to the Republic of Korea's (ROK) defense. This multinational effort, codified under the United Nations and led by the United States, eventually negated the massive support provided overland by a relatively narrow set of allies to the DPRK.

The United States' post–World War II policy toward Korea, and later the ROK, was initially ambiguous. After United Nations-supervised elections and a United Nations General Assembly resolution recognized the ROK as a sovereign country, the United States commensurately began withdrawing its troops from the peninsula. Alongside Soviet withdrawals, the United States drew down from 40,000 occupation troops in 1948 to just 7,500 in 1949. Despite a Central Intelligence Agency assessment that highlighted the new republic's vulnerability to an invasion from the North, the United States withdrew the majority of its remaining 7,500 soldiers occupying the country in June 1949.[19]

To offset the withdrawal of its troops, U.S. ambassador to the ROK John J. Muccio advocated for, and ultimately achieved, the establishment of the Korea Military Advisory Group (KMAG) from predecessor organizations on 1 July 1949 to develop the nascent ROK Army.[20] Despite the U.S. Army's direction to curtail military assistance to the ROK, Ambassador Muccio saw the value of such an organization in 1948 when KMAG advised and supported the ROK's constabulary force to defeat pro-Communist rebellions on Jeju-Do Island and in the town of Yeosu.[21] Just as in the Philippines during World War II, the nearly 500 assigned personnel of

[19] Harry S. Truman, "Statement by the President on the Decision to Withdraw U.S. Forces From Korea, 1947–1949," 27 October 1952, American Presidency Project, University of California, Santa Barbara, accessed 6 October 2024.
[20] Memo from the Secretary of State to the Embassy in Korea, 28 April 1949, document 226, in *Foreign Relations of the United States, 1949*, vol. 7, part 2, *The Far East and Australasia*, eds. John G. Reid and John P. Glennon (Washington, DC: Department of State, 1976), 998–1001.
[21] John D. Tabb, *The Korean Military Advisory Group (KMAG): A Model for Success?* (Fort Leavenworth, KS: U.S. Army Command and General Staff College, 2010), 24.

Table 1. Korea Military Advisory Group organizational chart, 1949

	Gen	Col	LtCol	Maj	Capt	1stLt	Total officers	Nurse	WO	Enl
Total	1	3	28	40	100	9	181	1	7	283
Office of the Chief	1	1	2	3	6	5	18	—	3	68
Department of National Defense Bureaus	—	—	3	—	—	—	3	—	—	—
Chief of Staff Korean Army	—	1	—	—	—	—	1	—	—	—
G-1	—	—	1	—	—	—	1	—	—	—
G-2	—	—	1	1	2	—	4	—	—	2
G-3	—	—	1	2	3	—	6	—	—	9
G-4	—	—	1	2		—	3	—	—	—
Finance	—	—	1	—	1	—	2	—	—	1
Inspector General	—	—	1	—	1	—	2	—	—	1
Judge Advocate	—	—	1	—	1	—	2	—	—	2
Adjutant General	—	—	1	1	—	—	2	—	—	—
Special Services	—	—	—	—	1	1	2	—	—	3
Provost Marshal	—	—	—	—	1	—	1	—	—	14
Troop Information and Education	—	—	—	—	1	—	1	—	—	4
Medical	—	—	1	—	1	1	3	1	—	5
Ordnance	—	—	1	1	5	—	7	—	3	20
Signal	—	—	1	1	4	2	8	—	—	36
Engineer	—	—	1	1	10	—	12	—	—	17
Quartermaster	—	—	1	—	6	—	7	—	—	8
Reconnaissance Troops	—	—	—	1	1	—	2	—	—	—
Air Base Detachment	—	—	—	1	—	—	1	—	—	2
Korean Military Academy	—	—	1	2	2	—	5	—	—	1
Korean Army Divisions (6)	—	—	6	18	54	—	78	—	—	84
National Police	—	1	3	6	—	—	10	—	—	1

Source: Robert K. Sawyer, *Military Advisors in Korea: KMAG in Peace and War* (Washington, DC: U.S. Army Center of Military History, 1988), 50, adapted by MCUP.

KMAG served a critical role as a combat enabler and liaison to the Republic of Korea armed forces.

Despite the importance of its mission, however, KMAG suffered from a lack of institutional incentives and a lack of enabling capabilities. "Korea was considered a very undesirable assignment," wrote U.S. Army Lieutenant Colonel Matthew J. Bartosik, a member of a fact-finding board. "Those [officers] on duty in Korea wanted to get out."[22] KMAG was also hobbled by a basic hurdle—the language barrier. The nascent ROK Army also lacked the terminology for modern military capabilities and concepts, which further complicated translation. In December 1949, the Korean Army G-3 (operations), on the advice of the KMAG G-3, began translating U.S. military terms into Korean.

In conjunction with U.S. troop withdrawals and at the behest of Ambassador Muccio, the United States implemented the Mutual Defense Assistance Program with the ROK under the Mutual Defense Assistance Act of 1949. Through this initiative, the United States contributed $10.2 million in defense assistance to the ROK in 1949, which equates to approximately $133.9 million in 2024 U.S. dollars.[23] KMAG was essential in identifying, recommending, and delivering this aid. The military aid was too little and too late to deter conflict, however, but would provide critical capabilities in the decisive days early in the ensuing war.

Conversely, the DPRK enjoyed increasing support from the Soviet Union that enabled it to attempt a forceful unification of the two Koreas. In March 1950, Joseph Stalin approved an arms and equipment transfer to the DPRK worth roughly $287.4 million in contemporary value, which enabled the DPRK to develop 10 in-

[22] Robert K. Sawyer, *Military Advisors in Korea: KMAG in Peace and War* (Washington, DC: U.S. Army Center of Military History, 1988), 43.

[23] James E. Webb, Memorandum for Mr. James S. Lay Jr., Executive Secretary, National Security Council, "National Security Council Progress Report by the Under Secretary of State (Webb)," document 16, 27 February 1950, in *Foreign Relations of the United States, 1950, vol. 6, East Asia and the Pacific*, ed. S. Everette Gleason (Washington, DC: Department of State, 1950), 156–67.

fantry divisions, an armored brigade, and a motorcycle regiment.[24] After 16 days of marshaling and preparing its forces, which contemporary U.S. military planners would term operational warning, the DPRK initiated its invasion of South Korea on 25 June 1950.

The international response to the DPRK's invasion of the south moved with a swiftness that contrasted prewar ambiguity over security guarantees. Between 25 June and 7 July 1950, the United Nations Security Council passed Resolutions 82, 83, and 84 which condemned DPRK aggression and authorized the formation of United Nations Command (UNC). The UNC ultimately grew to 22 member countries from across the world.[25] In total, 58 of the world's then 90 countries supported the United Nations' defense of the ROK through either direct military support, direct medical support, or military assistance.[26] Additionally, the U.S. military's direct intervention led to an increased defense budget from $160 billion in 1950 to $587 billion in 1953, converted to contemporary value, which comprised 68 percent of the overall U.S. budget in fiscal year 1953.[27]

This massive influx of support from the United Nations would have been immaterial had it not been for the extensive logistics network established in response to the surprise invasion. Although the U.S. Air Force's largest overseas contingent at the time of the invasion, Far East Air Force (FEAF) possessed only a fraction of the United States' former air transportation capabilities. FEAF's 374th Troop Carrier Wing comprised two Douglas C-54 Skymaster squadrons based at Tachikawa Air Base in Honshu, Japan, while the 21st Troop Carrier Squadron in the Philippines augmented this capacity.[28]

[24] Charles Kraus, "Preparing for War: Soviet-North Korean Relations, 1947–1950," History and Public Policy Program, Wilson Center, 3 June 2020.
[25] "Host Nation—Republic of Korea," United Nations Command, accessed 6 October 2024.
[26] Jiyul Kim and Sheila Miyoshi Jager, "The 'Greater' UN Coalition during the Korean War," History and Public Policy Program, Wilson Center, 26 May 2020.
[27] "Budget in Brief: 1950–1989," U.S. Bureau of the Budget, FRASER archive, accessed 6 October 2024.
[28] *United States Air Force Operations in the Korean Conflict, 25 June–1 November 1950* (Washington, DC: Department of the Air Force, 1952), 2.

The Military Sea Transportation Service (MSTS), newly established in October 1949, faced similar challenges as FEAF's air mobility wing. The Western Pacific arm of MSTS was not yet established by the time of the DPRK invasion, and in June 1950 only consisted of 10 former Army 177-foot *Camano*-class light cargo ships, two 338-foot *Kelly*-class coastal transports, and six World War II-era landing ship, tanks that carried a maximum of approximately 23,440 deadweight tons and 600 troops.[29] Though limited, the transportation assets played a vital role in sustaining the defense of the ROK.

Shortly after the DPRK's surprise invasion, President Rhee, Ambassador Muccio, and General MacArthur requested an emergency delivery of 105,000 105mm howitzer rounds, 265,000 81mm mortar rounds, 89,000 60mm mortar rounds, and 2,480,000 rounds of .30-caliber ammunition. Two days after the DPRK's invasion, the first MSTS ship set off from Yokohama destined for Korea with 12 105mm howitzers and 1,636 tons of ammunition. The next day FEAF C-54s, each capable of carrying 14 tons, delivered 117 tons of 105mm howitzer ammunition to Korea. With a 105mm round for the M2A1 howitzer weighing 33 pounds, this initial delivery equates to roughly 106,000 rounds, or slightly more than the initial emergency request.

By 10 July, MSTS grew to 52 vessels capable of delivering troops and supplies to Korea from Japan, of which 29 hulls were Japanese owned. By the end of July, the growing ad hoc force, augmented by Seventh Fleet's amphibious group, delivered approximately 40,000 soldiers of two U.S. Army infantry divisions and a cavalry division from Japan to Korea to forestall the DPRK's invasion.[30] The troops landed just in time to stabilize the United Nations' perimeter at Busan.

[29] James A. Field Jr., *History of United States Naval Operations: Korea* (Washington, DC: Department of the Navy, 1962), chap. 4.
[30] Field, *History of United States Naval Operations: Korea*, chap. 4.

Far East Command (FECOM) undertook drastic reforms in July and August 1950 to better organize and streamline this vital flow of troops and supplies to the Korean peninsula. Through Operation Rebuild, Japanese civilians retrofitted and repaired old U.S. equipment, operationalizing 1,950 2.5-ton trucks in Japan for service in Korea. "Red Ball Express" movements across rail and sea lines began on 23 July and transported 308 measurement tons of supply to Korea on 5 August.[31] To accelerate these efforts, FECOM established Japan Logistics Command on 24 August 1950. The sustainment organization assumed the responsibility from the Eighth U.S. Army to sustain all United Nations forces in Korea, including the coordination and transportation of forces and supplies through Japan and to Korea.[32] As an example of the growing demand, the Red Ball Express delivered 949 tons of supply by surface on 25 August, and on 28 August FEAF delivered 398 tons of supply and 343 passengers by air.[33] Eventually, Japan Logistics Command streamlined the flow of material across all means of transportation, thereby enabling UNC to gain a quantitative advantage over North Korean forces.[34]

As the DPRK's invasion of the ROK protracted, support to both sides escalated in attempts to regain the initiative. By August 1950, UNC forces surpassed those of the DPRK Army and contained 600 tanks opposed to 100 North Korean tanks.[35] The PRC then directly entered the conflict in 1950 and committed 3.1 million troops and 730 million Renminbi by the war's end. By 23 November 1950, however, the UNC grew to a force of approximately 553,000 men from the Republic of Korea and 13 members of the United Nations. The Allied command contained 11,186 troops from the United

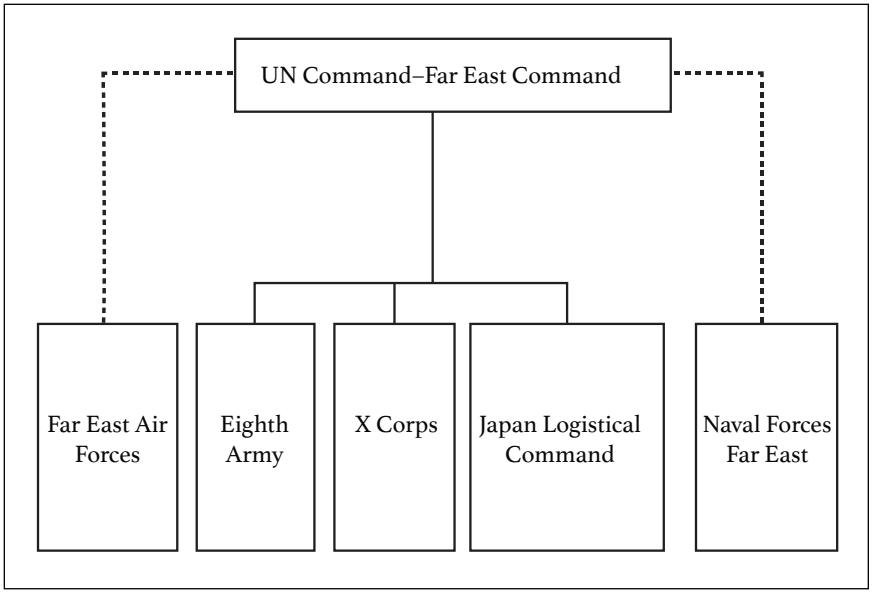
[31] Roy E. Appleman, *South to the Naktong, North to the Yalu: June–November 1950* (Washington, DC: U.S. Army Center of Military History, 1992), 379.
[32] Appleman, *South to the Naktong, North to the Yalu*, 379.
[33] Appleman, *South to the Naktong, North to the Yalu*, 379.
[34] Pierre P. Kirby, *Supplying United Nations Troops in Korea* (Fort Leavenworth, KS: Army University Press, 1953), 46.
[35] Appleman, *South to the Naktong, North to the Yalu*, 379.

Kingdom, 5,051 from Turkey, 1,349 from the Philippines, 1,181 from Thailand, 1,002 from Australia, 636 from the Netherlands, 326 from India, and 168 medical personnel from Sweden.[36] The UNC's multinational support not only offset forces from the DPRK and the PRC, it also reflected the will of the international community to support the defense of a newly sovereign nation.

While allied force contributions to the UNC increasingly grew throughout the war, the most significant force growth to counterbalance PRC intervention came from the ROK Army, growing from a force of 65,000 in March 1949 to one of the world's largest and most battle-hardened force of 591,000 soldiers by July 1953. As General Matthew B. Ridgway later recalled, "No army in modern times was ever subjected to the battle stresses, strains, and losses to which the ROKs were . . . in the beginning of the war."[37] Before and through the Korean War, KMAG played an important role in developing the ROK Army's resilience and enabling its achievements. In turn, General Ridgeway supported KMAG by assigning top-tier U.S. officers to the organization, overstaffed the unit's authorized strength of 1,918 to 2,866 personnel, and developed a close relationship with ROK President Rhee to facilitate the implementation of KMAG's recommendations.[38] As General Ridgway later observed, "officers in an advisory capacity, unit advisors . . . really had a much tougher job than fellows in the regular units, a much tougher job."[39] Collectively, the ROK Army's internal strengthening and UNC's advantage in international military support offset the deep support for the DPRK from

[36] Billy C. Mossman, *Ebb and Flow, November 1950–July 1951* (Washington DC: U.S. Army Center of Military History, 1990), 25.
[37] "How the Korean Army Improved: Interview with Maj Matthew B. Ridgway, USA, Ret.," in: *A Systems Analysis View of the Vietnam War: 1965–1972*, vol. 7, *Republic of Vietnam Armed Forces (II)*, ed. Thomas C. Thayer (Washington, DC: OASD Systems Analysis, Southeast Asia Intelligence Division, 1975), 52.
[38] Alfred H. Hausrath, *The KMAG Advisor: Roles and Problems of the Military Advisor in Developing an Indigenous Army for Combat Operations in Korea* (Chevy Chase, MD: Johns Hopkins University Operations Research Office, 1957), 95.
[39] "How the Korean Army Improved," 52.

Chart 2. Far East Command organizational chart, 23 November 1950



Source: Billy C. Mossman, *United States Army in the Korean War: Ebb and Flow, November 1950–July 1951* (Washington, DC: Center of Military History, 1990), 26, adapted by MCUP.

the Soviet Union and the PRC, and facilitated the signing of the Armistice in 1953.

In the framework of a defensive campaign, the Korean War was characterized by broad and deep international resolve that established a legal framework for military support to the Republic of Korea. Although the DPRK, PRC, and Soviet Union retained an advantage in proximity and shared land borders that facilitated the delivery of massive military support, the UNC offset these advantages by bringing to bear the diplomatic, information, military, and economic power of allies and partners. The United States' next defensive campaign in the Pacific would not be as unified or integrated.

Limitations When Lacking Unity: U.S. Support to the Republic of Vietnam

As defeated French forces withdrew from Southeast Asia and the specter of Communism loomed, the United States incrementally increased its efforts to support the defense of the Republic of Vietnam beginning in the mid 1950s. U.S. Military Assistance Advisory Group (MAAG), Vietnam, redesignated in November 1955, grew from a force of 342 in 1954 to 685 in 1960 to assist the Army of the Republic of Vietnam (ARVN) defend against North Vietnamese aggression.[40] Although North Vietnamese aggression in the post-French era of the late 1950s primarily manifested in guerilla warfare and assassinations of key local leaders, of which there were nearly 2,000 in 1960, MAAG and U.S. Pacific Command (USPACOM) prepared ARVN for "a Korea-style conflict" against a conventional force.[41] As a former MAAG commander, Lieutenant General Lionel C. McGarr noted, this organization and approach attempted to solve a "very unconventional situation in a basically conventional manner."[42] Compounding the problem, as in previous advisory missions, MAAG suffered from a lack of language skills and a poor understanding of Vietnamese politics and cultural dynamics.[43]

Only in January 1961 did MAAG develop and publish a *Counterinsurgency Plan* to increase the ARVN by 20,000 personnel and support local security forces through the assignment of an additional 400 U.S. special forces personnel to the country.[44] By 1962, however, North Vietnam organized their more than 20,000 irregular forces into the People's Liberation Armed Forces that controlled 10 percent of Vietnamese hamlets and influenced an additional

[40] Graham A. Cosmas, *MACV: The Joint Command in Years of Escalation, 1962–1967* (Washington, DC: U.S. Army Center of Military History, 2006), 10.
[41] Cosmas, *MACV: The Joint Command in Years of Escalation, 1962–1967*, 15.
[42] Cosmas, *MACV: The Joint Command in Years of Escalation, 1962–1967*, 29.
[43] Cosmas, *MACV: The Joint Command in Years of Escalation, 1962–1967*, 12.
[44] Cosmas, *MACV: The Joint Command in Years of Escalation, 1962–1967*, 16–18.

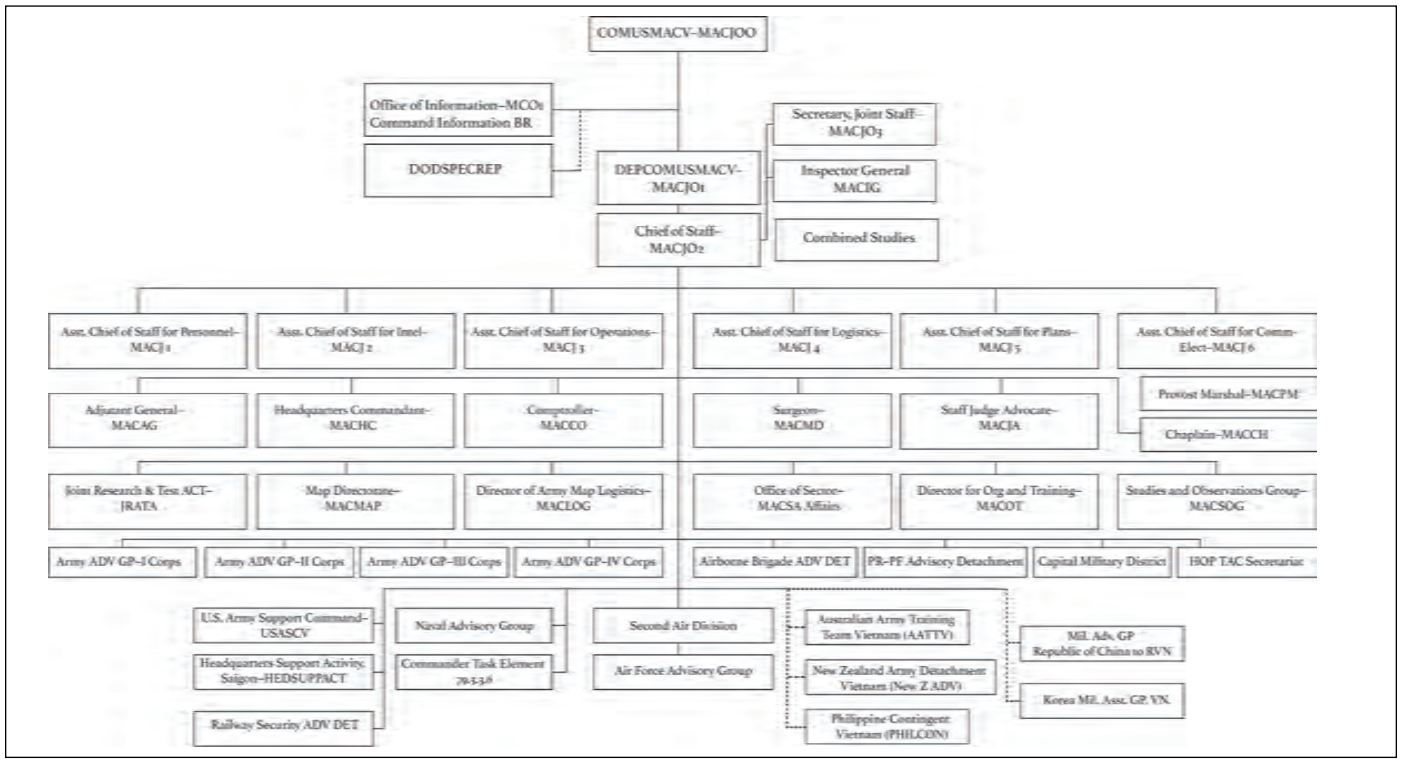
60 percent.[45] Unlike Korea in the late 1940s, the U.S. effort lost the opportunity to contain irregular and subversive elements within South Vietnam relatively early in the conflict and before the subsequent introduction of conventional forces.

The American counterinsurgency approach, which recognized the importance of and depended upon the close coordination between all elements of South Vietnamese national power, was ironically internally fractured along the very lines it sought to strengthen in the South Vietnamese. As the Army's official history observed of the overall U.S. mission in South Vietnam, "The State and Defense Departments competed for overall control and the Central Intelligence Agency, the Agency for International Development, and the U.S. Information Agency independently made and executed policy in their own fields."[46] The internal organization of the U.S. military effort contributed to this lack of unity and focus. USPACOM activated U.S. Military Assistance Command Vietnam (USMACV) on 8 February 1962 to command and control this growing U.S. military effort, but this internal reorganization contributed to the lack of unity and focus that plagued the wider U.S. mission. Although MAAG initially worked as part of the U.S. country team during the late 1950s, USMACV subsumed most functions of the MAAG soon after it established and operated as a coequal entity with the country team. Thus, in growing the military mission in Vietnam, the Department of Defense further bifurcated efforts with the Department of State.

Additional, competing roles and responsibilities complicated the mission for USMACV. By the end of May 1962, the commander of USMACV also held command of the U.S. Military Assistance Command, Thailand, and directed that organization's own efforts to strengthen the Thai military through Joint U.S. Military Assistance Group, Thailand. Furthermore, the commander of

[45] Cosmas, *MACV: The Joint Command in Years of Escalation, 1962–1967*, 72.
[46] Cosmas, *MACV: The Joint Command in Years of Escalation, 1962–1967*, 21.

Chart 3. U.S. Military Assistance Command, Vietnam, organizational chart, 1964



Source: Graham A. Cosmas, *MACV: The Joint Command in Years of Escalation 1962–1967* (Washington, DC: U.S. Army Center of Military History, 2006), 61, adapted by MCUP.

USMACV was also designated as the commander of Southeast Asia Treaty Organization (SEATO) field forces in contingencies. USMACV's first commander, General Paul D. Harkins, concluded that the "whole setup of command and control was too complicated."[47]

These political-military fractures in the U.S. effort only worsened as the political and military situation deteriorated in Vietnam. Following the ARVN coup that removed President Diem from power, coordination and cooperation between USMACV and the U.S. embassy continued to decline through a closing window of opportunity before North Vietnamese forces began large-scale military operations. Thus, the first conventional U.S. ground forces that landed in Vietnam during 1965 stepped ashore into a disadvantageous political and diplomatic environment that suffered from poor coordination between U.S. agencies, a lack of unity within their own command, and a lack of unity with their ARVN counterparts. It was unlike the environment in which conventional U.S. forces landed in the Philippines during 1944 and in Korea during 1950. Unfortunately, it would not be the last time U.S. forces operated in such disadvantageous conditions.

The U.S. defensive effort in Vietnam suffered from a lack of unity across all facets. Internally, USMACV competed with MAAG for personnel, missions, and influence. Within the DOD, USMACV competed with USPACOM and the Joint Staff for control of the effort. In Vietnam, USMACV structurally competed with the country team and ambassador, although these tensions were ameliorated by the personal relationships between its leaders. While the MAAG was initially structured for interagency cooperation with the country team, interpersonal discord between its leaders hindered such cooperation. Conversely, USMACV and the U.S. embassy were poorly structured for interagency cooperation, but such cooperation was episodically achieved through close

[47] Cosmas, *MACV: The Joint Command in Years of Escalation, 1962–1967*, 40.

personal relationships of its leaders. Unfortunately, the structural changes USMACV implemented outlasted the personnel and personal arrangements that made the mission effective.[48]

Although MAAG evolved from the same authorities and informed by the lessons of KMAG, the two similar organizations operated as part of commands that sought to solve two different problems. In Korea, KMAG solved the relatively focused problem of developing the ROK armed forces—first as an internal security force, then as a defensive military force. When the U.S. Eighth Army, then FECOM assumed command of KMAG, its mission and functions largely remained intact and in support of its higher headquarters. In Vietnam, however, MAAG began with an initially well-scoped mission that became muddied and, at times, hindered by the introduction of USMACV. USMACV at once sought to command and control all U.S. forces in both conventional and counterinsurgency roles, coordinate militarily with the government of the Republic of Vietnam, and subsume the responsibilities of MAAG to develop the ARVN. These expansive and overlapping lines of effort pursued by USMACV led to an overall loss of unity of command and unity of effort within the U.S. government's approach to support and defend the Republic of Vietnam.

As the Vietnam case study highlights, military planners and commanders should not simply seek to emulate the structures and organizations that were successful in the previous conflicts. Instead, leaders must understand the factors which led to the success of these organizations, the missions they intended to fulfill, and the variances in those circumstances with the contemporary security environment and its requirements. Preparing the organizations for interagency cooperation proved as necessary as preparing tactical units for a defensive campaign.

[48] Cosmas, *MACV: The Joint Command in Years of Escalation, 1962–1967*, 18–29.

Recommendations for the Defense of Taiwan and a Broader Defensive Paradigm in the Pacific

Across all three case studies, U.S. military headquarters were forced to rapidly restructure due to unexpected developments on the battlefield and in alignment with international resolve. The short history of ABDACOM highlights the risks of major organizational overhauls in crisis and the U.S. efforts in Vietnam raise the difficulty of interagency cooperation. The United States' experience with the UNC in the Korean War highlighted the strength of a multinational coalition established on a legal and diplomatic basis and the necessity to establish such frameworks early in a conflict. With the PRC and Russian Federation occupying permanent seats on the United Nations Security Council, however, that body will not likely pass an international resolution to militarily support the defense of Taiwan. Short of a United Nations Security Council Resolution, the United States can mitigate these limitations by developing alternative frameworks to broaden support for Taiwan.

Although the Southeast Asia Treaty Organization of 1954 is defunct and much derided today, it is worth noting that U.S. national security planners envisioned this alliance as part of a deliberate design to set advantageous conditions for potential defensive campaigns across the region. In assigning SEATO field command to the commander of USMACV, PACOM vested authority in a multinational effort in Vietnam, which eventually included military forces from SEATO members Australia, New Zealand, the Philippines, and Thailand, although the treaty itself was never invoked. While multinational forces sent to Vietnam arrived too late and trained for the wrong fight to seize early opportunities for success, a multinational coalition framework remains critical to offset PLA quantitative advantages over Taiwan's armed forces. Informal military coordination arrangements, such as those currently built on the hub-and-spoke U.S. alliance network, can be the basis for such frameworks; however, these arrangements must be formalized

ahead of subversive and aggressive actions against Taiwan to be most effective. Time is of the essence, for those aggressive actions may occur unexpectedly as in Korea or are already underway as was in Vietnam.

While nations in the Pacific have been steadily strengthening and diversifying their military ties, one notable exception remains: Taiwan. Although multiple countries express varying degrees of diplomatic and military support for Taiwan, the United States currently provides nearly all foreign military assistance to Taiwan. Geography will still dictate the physical flow of goods and defensive means to allies and partners across the Pacific, but increasing the diversification of defense exchanges provides a modicum of resilience to interdiction along these lines of communication. As with the current interrelated nature of Ukraine's defensive support, this approach harnesses the capacity of interoperable and like-minded partners while increasing the difficulty for an adversary to diplomatically, economically, or militarily affect such support.

In conjunction with necessary efforts across all elements of national power, these case studies highlight shortfalls that the U.S. military will likely need to address to prevail in a range of contemporary crises or conflicts in the Pacific. First, an organization to enable and coordinate with key allies and partners is vital to build their military capacity and capabilities while also providing a critical linkage for military support at the outbreak of hostilities. Second, by developing capabilities for a range of support options—from direct to indirect—the United States military can mitigate the lack of breadth and depth of international military support to Taiwan and hedge against the variance of national support caveats. Third, the establishment of Joint, interagency, and potentially combined commands can unify the vital flow of forces, materiel, and efforts when needed rapidly in a crisis.

Despite the eventual success of military assistance organizations in the Philippines and Korea, these units endured chronic shortfalls that persisted throughout subsequent efforts in Viet-

nam, Iraq, and Afghanistan.[49] Although the highlighted case studies validate the value of such organizations in a defensive paradigm, military assistance organizations continue to be deprioritized by the military services and, in some cases, purposefully ignored. As implemented in Iraq and Afghanistan, military assistance organizations were ad hoc units formed with individually augmented personnel sourced from across the joint force and across the world. Despite rhetoric proclaiming such organizations as main efforts of respective U.S. military campaigns, personnel in such key roles continued to lack incentives for their service. As T. R. Fehrenbach surmised of the initial effort to develop the ROK Army during the Korean War, "there was little prestige, promotion, or hope of glory with serving with KMAG. The United States Army tended to forget those troops. Most officers who could avoid KMAG duty did so, preferring to serve among their own troops, where food, companionship, and the chances of recognition were all considerably improved."[50] The perceptions of security cooperation and the approach to developing partner capacity persisted throughout the Global War on Terrorism, to the detriment of U.S. strategy and military objectives.

The lack of preparedness for these historically frequent missions have already hampered recent U.S. military efforts. As Dr. Carter Malkasian observed of the U.S. war in Afghanistan, "opportunity was widest early on, from 2001 to 2005. Popular support for the new Afghan government was high, as was patience with foreign presence, and the Taliban were in disarray. Unfortunately, American decisions foreclosed paths that might have avoided the years that followed."[51] Similar conditions existed in the Philip-

[49] Robert D. Ramsey, *Advising Indigenous Forces: American Advisors in Korea, Vietnam, and El Salvador* (Fort Leavenworth, KS: Combat Studies Institute Press, 2006), 117.
[50] T. R. Fehrenbach, *This Kind of War: A Study in Preparedness* (New York: Macmillan, 2001), 508.
[51] Carter Malkasian, *The American War in Afghanistan: A History* (New York: Oxford University Press, 2012), 456.

pines between 1942–44, in Korea between 1948–50, and in Vietnam between 1954–61. As in Vietnam, though, Malkasian cites the inability to rapidly develop partnered defense forces as a reason for this missed opportunity early in the Afghanistan campaign. If the United States and key allies seek to support the defense of Taiwan, they must establish an effective organization to comprehensively coordinate defensive support with the Taiwan armed forces prior to a potential conflict.

Contemporary threats continue to highlight the need for cohesive organizations to develop partnered security forces. Ukraine's defense against Russia's invasion has lacked an international framework to build support for direct military involvement but has been characterized by high degrees of military assistance. Unlike in the Philippines, Korea, and Vietnam, however, the United States did not establish a military assistance organization to coordinate support to Ukraine until September 2022, nearly six months after Russia's second invasion and more than eight years since its first. Fortunately, rotational security cooperation engagements through the State Partnership Program fulfilled the functions of capacity building in much the same way that KMAG strengthened the ROK Army against subversion in 1948. Since its establishment, Security Assistance Group-Ukraine has coordinated the delivery of nearly $70 billion worth of U.S. military aid to the Armed Forces of Ukraine, overshadowing the 1,325 tons of supplies delivered to the Philippine resistance during World War II and the support provided to the Republic of Korea.[52]

Such organizations continue to be episodic and primarily manned by individual augments from across the globe. The current ad hoc approach to manning, training, equipping, and commanding such critical security assistance organizations decreases unity of command, fractures unity of effort, and risks the overall U.S. effort.

[52] Jonathan Masters and Will Merrow, "How Much U.S. Aid Is Going to Ukraine?," Council on Foreign Relations, accessed 6 October 2024.

While the offices of defense cooperation within U.S. embassies can fulfill the majority of steady-state functions, an organized unit could augment country teams in crisis or be persistently positioned in high-threat locations. Regardless of the political decision to support Taiwan in a crisis, the U.S. military can reduce risks and seize early opportunities by training, equipping, and organizing its personnel into cohesive units to undertake such a vital mission.

Secondarily, allies and partners of Taiwan must develop the necessary capabilities to enable such a defensive approach. As in the Philippines and Korea, the ability to rapidly transport supplies and personnel across contested spaces is vital to sustain resistance, whether acutely in crisis or persistently in a protracted effort. Investing in the transportation capabilities to actualize this logistics flow in conflict is needed in peace. While the *Nautilus* and *Narwhal* proved to be of fortunate design to resupply resistance forces in the Philippines, the U.S. Navy can deliberately develop similar capabilities today through extra-large unmanned undersea vehicles, unmanned surface vessels, and other emerging capabilities. Maturing capabilities in information, space, and cyber domains offer novel means to indirectly support allies and partners across the spectrum of conflict.

Additionally, the Philippines and Korea case studies highlight the necessity and value of military capabilities to understand the operating environment, coordinate with allies and partners, and enable allies and partners to maximize their effectiveness. Conversely, Vietnam, Iraq, and Afghanistan highlight the risks to U.S. forces and objectives when these lessons are not applied. Existing capabilities and organizations, such as international affairs Marines and the Marine Corps' Air Naval Gunfire Liaison Companies, must be developed and employed commensurate with the threat and corresponding to the requirements for Taiwan's defense. While the U.S. Army's establishment of Security Force Assistance Brigades in 2017 was a positive step forward, the U.S. Navy's deactivation of Maritime Civil Affairs and Security Training Command

in 2014 and the U.S. Marine Corps' deactivation of Marine Corps Security Cooperation Group in 2021 are equal steps backward. Although Marine Corps Advisor Companies are a Reserve capability with great potential, the Department of the Navy lacks an organized, active duty force to strengthen the maritime self-defense capabilities of our allies and partners. This self-imposed situation is incomprehensible given the maritime threat facing Taiwan, Japan, and the Philippines today. Such capabilities are important investments in critical munitions and stand-off capabilities that could be employed directly or indirectly in a conflict. Furthermore, by deprioritizing the capabilities designed to seize early advantages, the U.S. military increases the likelihood of employing more precious resources in disadvantageous environments, as was the case in Vietnam, Iraq, and Afghanistan.

Closely related to the first two recommendations, key partners of Taiwan must establish multinational and Joint command and control frameworks to maximize the delivery of military support and effects. The U.S. experience supporting resistance in the Philippines highlights the challenges exacerbated by failing to have a command and control structure in place for a range of possible contingencies. Since the UNC provides an ideal, but unlikely model to be employed in a Taiwan conflict, alternatives must be explored with key allies and partners.

Even without a multinational alliance framework, key partners of Taiwan can establish supporting commands to facilitate the rapid accomplishment of anticipated missions. One way to do so would be through the establishment of a U.S. Joint task force ahead of a Taiwan conflict to better coordinate interagency and prospective multinational efforts. Additionally, an organization can be formed now to solve the challenges associated with rapidly delivering sustainment and defensive capabilities into a conflict zone, as Japan Logistics Command did and as Security Assistance Group Ukraine is doing. As Brian Kerg and Chris Denzel recognized, "Without action now, a postwar history might also make

the same remark about an inevitably doomed command stood up in the first island chain without preparation, hoping for a miracle when the seeds for success were never planted."[53]

Offense and Defense advises that "successful defenses are aggressive; they use direct, indirect, and air-delivered fires; information operations (IO); and ground maneuver to strike the enemy. They maximize firepower, protection, and maneuver to defeat enemy forces. Static and mobile elements combine to deprive the enemy of the initiative."[54] The lessons from defensive campaigns in the Philippines, Korea, and Vietnam compel aggressive action to set the conditions for a successful defense of Taiwan. Although not all of these conditions currently exist, like-minded partners can prevail by applying the lessons of history and preparing for a new defensive paradigm in the Pacific. Now is the time to aggressively set the conditions for a successful campaign to defend allies and partners in the Pacific.

[53] Brian Kerg and Chris Denzel, "Get Multinational Warfighting Right, Before It Matters," U.S. Naval Institute *Proceedings* 154, no. 5 (May 2024).
[54] *Offense and Defense*, 8-5.

Chapter
7

Marine Logistics on the European Front

Delivering Effects Inland from the Littorals

By Sidharth Kaushal, PhD

Introduction

As the North Atlantic Treaty Organization (NATO) articulates the operational approaches that will allow it to deliver the deterrence and defense of the Euro-Atlantic area (DDA) family of plans, the role of amphibious forces within this framework bears considering.[1] On the one hand, there is considerable utility for forces structured for theater-level mobility within a concept that emphasizes the imposition of multiple dilemmas on a Russian force that may be able to muster more mass than the alliance. However, many existing approaches to amphibious power projection will be challenged by adversary antiaccess/area-denial (A2/AD) capabilities that will pose a particularly acute risk to the logistical support on which they depend. In addition, European marine forces, which typically lack the mass they had during the

[1] On the DDA, see Steven R. Covington, "NATO's Concept for Deterrence and Defence of the Euro-Atlantic Area (DDA)," Belfer Center for Science and International Affairs, Harvard Kennedy School, 2 August 2023.

Cold War, will have to consider how they play their traditional role as a vanguard element with fewer people.[2]

This chapter argues that many of these challenges can be overcome through the tighter integration of amphibious operations with concepts for littoral warfare more broadly. If viewed as distributed forward-postured forces that act as enablers for strike capabilities in the European littoral fielded by both the U.S. Marine Corps and also by many of the navies of Europe's smaller states—which were optimized for coastal sea denial but which are just as suitable for inland strike from the littorals—Europe's Marines can continue to be an important part of the alliance's deterrent posture on its eastern flank. Moreover, such an approach could help overcome some of the major points of failure that currently challenge amphibious units, including the risk posed by a reliance on centralized logistical nodes. To be sure, this will create other challenges, including sustaining more widely distributed forces that will require changes to the way in which marine units are structured and postured. The benefit of these changes, however, is the potential to create a littoral contact layer that can significantly complicate the battlefield geometry for an adversary that typically thrives when it can concentrate fires on a narrow front—something it can be denied if it is compelled to provide surveillance and to protect its coastal flanks.

The Challenges Facing Existing Approaches

During the Cold War, European Marine forces such as the British Royal Marines and the Dutch Korps Mariniers were expected to provide a rapid reaction capability on Europe's northern flank. Structured and equipped as light infantry, these forces would represent a vanguard element for heavier forces, including the U.S.

[2] During the Cold War, for example, the UK's Royal Marines could field roughly twice the forces that they presently can. On Cold War assumptions, see Eric Grove, *The Battle for the Fiords: NATO's Forward Maritime Strategy in Action* (London: Ian Allan, 1991).

Marine Corps and the Norwegian Army.[3] In exercises such as Trident Juncture in which the alliance rehearsed its response on its northern flank, the role of marine forces has been analogous.[4]

However, important elements of this vision would prove difficult to replicate. First, the antiaccess threat has evolved. The processing power to fuse data from multiple sensor types and from multiple sources has developed in tandem with the emergence of supersonic and hypersonic antiship cruise missiles such as the Russian P-800 Oniks and 3M22 Zircon.[5] The proliferation of different sensor types as well as the means to cue them will make hiding on the surface increasingly difficult, while faster missiles reduce the salvo sizes needed to penetrate an air defense screen.

While it should not be presumed that antiship missiles can always penetrate an effective surface screen, as illustrated by the tactical success of the coalition supporting Operation Prosperity Guardian in the Red Sea, smaller numbers of destroyers will also be required for other tasks such as the defense of aircraft carriers and air and missile defense for allied homelands. In a context where Marines may have to demand ever more force protection while their numbers dwindle to the point of being incapable of fulfilling historical functions, there is a risk that naval and joint commanders deem the cost of amphibious power projection to exceed its utility in Europe. Perhaps most importantly, however, while the historical success rate of cruise missiles against defended ships is relatively low, this is less true of the vulnerable noncombatant ships they may be defending.[6] In the Red Sea, for example, the Houthis have had little success against Western DDGs (guided missile destroyers), but they have had much more success against the commercial ves-

[3] Grove, *The Battle for the Fiords*.
[4] Megan Eckstein, "Trident Juncture Wraps Up After Successful Amphibious Landings, Training Ashore in Norway," *USNI News*, 7 November 2018.
[5] Jack Watling, Justin Bronk, and Sidharth Kaushal, *A UK Joint Methodology for Assuring Theatre Access*, Whitehall Report 4-22 (London: Royal United Services Institute, 2022), 19.
[6] John C. Schulte, "An Analysis of the Historical Effectiveness of Anti-Ship Cruise Missiles" (thesis, Naval Postgraduate School, 1994), 16.

sels the DDGs are protecting.[7] This is a reasonable and concerning proxy for the vulnerabilities of the vessels upon which the sustainment of a force ashore depends. In a context where marine forces ashore are supported by shrinking fleets of landing platform docks and where options to commandeer vessels from trade are more limited because commercial vessels are increasingly operated by non-European states, this poses a real risk that disembarked forces may not be supported even if they get ashore.

Second, lodgements ashore will become increasingly difficult to defend. This is not exactly a new issue and has been a challenge for amphibious forces historically, as illustrated in the Falklands. Increased precision means that tools such as short-range ballistic missiles can be used effectively as tactical tools. This means that the missile threat to lodgements will be more complex and thus expensive to defend against. In addition, armed and surveillance drones such as Russia's Okhotnik and China's GJ-11 can provide adversaries with a relatively simple means of generating very low observable air power. The challenge of pervasive surveillance will be compounded by proliferating commercial satellite imagery and increasingly capable processing tools. As a consequence, to use an example, the U.S. Army's XVIII Airborne Corps estimates that it will be able to complete kill chains for long ranged precision fires within two minutes—a capability likely to be replicated to at least some degree by competitors.[8] Older tools such as dumb bombs can also be made more lethal with simple glide kits, which allow Russian aircraft to launch them from within the safety of their air defense networks, as illustrated by Russia's employment of the FAB-500 in Ukraine.[9]

[7] Red Sea Attacks Dashboard, Yemen Conflict Observatory Interactive Map, Armed Conflict Location and Event Data, accessed 25 January 2025.
[8] Jack Watling, "Long Range Precision Fires in the Russo Ukrainian War," in Dag Henriksen and Justin Bronk, eds., *The Air War in Ukraine: The First Year of Conflict* (London: Routledge, 2023), 74.
[9] Sergio Miller, " 'An Extremely Big Threat': Russian Glide Bombs Make Their Debut in the War," *Wavell Room*, 17 April 2023.

At the theater level, there is another major challenge to the sustainment of European forces in the littoral: their reliance on a limited number of seaports of debarkation/disembarkation (SPODs). Trident Juncture, for example, saw NATO conduct a massive logistical operation, including the distribution of 1.8 million meals and 4.6 million bottles of water.[10] Most of this was moved through the port of Gothenburg, which is Scandinavia's largest port. Ports such as Bornholm and Gothenburg will also likely be critical in the Baltic Sea where the tempo of activity is likely to be logistically demanding and will require the replenishment of vertical launching system (VLS) cells for vessels afloat, among other things.[11] As illustrated by the war in Ukraine, during which Russia has launched more than 7,000 missiles and unmanned aerial vehicles (UAVs) of all types, a concentrated attack against these points of failure may be difficult for even a very credible air defense network to thwart, and this will impact all force elements rather than Marines alone.

Paradoxically, then, the utility of the strategic function that amphibious forces play has never been greater even as the modalities of their present approaches will become increasingly inapplicable. A self-sustaining force capable of posing multiple dilemmas to Russia in the early stages of a conflict will be an extremely useful capability in the alliance's repertoire precisely because the rapid movement of other elements of the joint force will be so heavily contested. Yet, for all the reasons discussed, the ability of Europe's Marines to play this role as currently structured will be challenged. European Marines will face two dilemmas. First, to survive on the modern battlefield, they will have to become an increasingly distributed force. However, the question then becomes whether a distributed force can have meaningful tactical effects.

[10] Jack Watling, "NATO's Trident Juncture 2018: Political Theatre with a Purpose," Commentary, Royal United Services Institute, 20 November 2018.
[11] SSgt Madeline E. Jinks, "BALTOPS 23 Demonstrates Integrated Logistics Capability as U.S. and Danish Navy Conduct Inert SM-2 Missile Load on Bornholm," U.S Naval Forces Europe and Africa/U.S. Sixth Fleet, 11 June 2023.

Second, the self-sustaining quality of an amphibious force makes it highly valuable, but in a contested and denied environment retaining this capacity for meaningful self-sustainment will demand new approaches.

Marines as Part of a Littoral Contact Layer: The Promise of a Strike-centric Concept of Operations

There are, however, avenues to balance these competing imperatives to enable Europe's Marines to deliver meaningful effects while mitigating some of the risks they face. Central to this will be nesting the concepts of operations for European marine forces within a strike-centric framework.

A number of amphibious forces, most notable among them the U.S. Marine Corps, are reorienting their force design toward a greater emphasis on the ability to deliver long-range precision fires from the littoral. While generally conceived of in the context of expeditionary advanced base operations in the Indo-Pacific, these concepts have utility in the European theater of operations.[12] In Europe, the Russian Army appears geared to reconstitute itself with a focus on mass. According to former Defence Minister Sergei Shoigu's force design (which has not been shelved despite his being replaced), the Russian Army will add 14 new divisions in two new military districts to its order of battle.[13] As illustrated in Ukraine, the Russian Army is at its most effective when it can concentrate forces on narrow fronts that it can saturate with both UAVs and fires. In Donbas, for example, despite its inefficiencies, the Russian Army was inflicting 200 casualties a day on Ukrainian forces in July 2022.[14] A major challenge for Europe is that many of

[12] *Tentative Manual for Expeditionary Advanced Base Operations* (Washington, DC: Headquarters Marine Corps, 2021).
[13] "Russia's Defense Chief Proposes Re-establishing Moscow, Leningrad Military Districts," TASS, 21 December 2022.
[14] Mykhaylo Zabrodskyi, et al., *Preliminary Lessons in Conventional Warfighting from the First Six Months of Russia's Invasion of Ukraine* (London: Royal United Services Institute, 2022), 30.

the fronts on which NATO might confront a Russian force, such as the Baltic states and Norway, are geographically narrow.

The challenge of long-range strikes cuts both ways, however. Amphibious forces can both deliver fires from the littoral and enable fires from across the joint force. Their presence can also expand the geometry of the battlefield for Russian forces in many instances by using the additional space afforded from the littoral. For example, Estonia has 2,000 islands and Norway has, by some estimates, 200,000.[15] As illustrated by the arrival of the M142 High Mobility Artillery Rocket System (HIMARS) in Ukraine and the subsequent use of air-launched missiles such as the MBDA Storm Shadow missile, deep strike capabilities can considerably undercut the offensive power of an artillery-centric army in the early stages of a battle, although this effect becomes attenuated through sustained exposure, which allows adversary electronic warfare to adapt.[16] As a delaying force in the first battle, however, strike-centric assets in the littoral can both pose a risk to Russian rear areas as well as concentrations of troops and can considerably expand the area Russian forces must survey.

Moreover, there are synergies to be exploited between the concepts of operations envisioned by the U.S. Marine Corps and the forces at the disposal of many littoral-oriented European navies. This is particularly true of the navies of new members such as Finland and Sweden, which were built around fast missile-equipped vessels such as the Finnish Navy's *Hamina*-class missile boat and Swedish Navy's *Visby*-class corvette to enable sea denial against a stronger fleet—something which will be less relevant as these states will now confront Russia from a position of strength in the

[15] "How Many Islands Are There in the World 2023," World Population Review, accessed 25 January 2025; and "Estonia Has 800 More Islands than Hitherto Believed," ERR.ee, 25 August 2015.

[16] Zabrodskyi et al., *Preliminary Lessons in Conventional Warfighting from the First Six Months of Russia's Invasion of Ukraine*, 30. On adaptation, see Roman Olearchyk, "Military Briefing: Russia Has the Upper Hand in Electronic Warfare with Ukraine," *Financial Times*, 7 January 2024.

Baltic Sea as part of an alliance that has maritime preponderance. The same platforms that can deny coastal areas can also be used to conduct deep strikes inland with missiles such as the RBS-15 Mk III and can be more easily risked in forward positions than vessels such as destroyers which are scarce, difficult to replace and have larger radar cross sections.[17] As illustrated by Russia's failure to sink Ukraine's sole surviving vessel, the *Yuriy Olefirenko* Project 773 *Polnocny-C* class landing ship, until it was in port, Russia still faces challenges with cueing against dynamic maritime targets.[18] A combination of low radar cross section (RCS) missile equipped vessels and distributed fires on littoral archipelagos can, then, face a Russian advance with a robust strike threat on its flanks. Tracking this threat would necessarily involve the allocation of intelligence, surveillance, and reconnaissance (ISR) assets to conduct surveillance over a wide littoral area, denying the Russian Army the narrow battlefield on which it thrives.

In the high north, the proximity of NATO's land borders to Russia's critical facilities in and around Murmansk, such as the Russian Northern Fleet's administrative base in Severomorsk, could, similarly, allow long-range fires to be used as a means of operational dislocation. Russian commanders planning an escalation in another theater such as the Baltics could not afford to ignore the risk posed if the alliance emplaced strike assets in the littorals of Norway that subsequently went emissions-dark. For a Russian force that does not have the ISR or dynamic targeting to suppress this strike threat, this would necessarily force Russia to strip its limited force of cold weather-capable troops, primarily drawn from the Russian Airborne Forces (VDV), to try to overrun it along with other capabilities such as fixed-wing air assets. Not only would this make an assault elsewhere less viable, it would also commit the VDV to advancing on relatively unsuitable terrain

[17] Sidharth Kaushal and Mark Totten, *Amphibious Futures: The Royal Marines in Contested New Operating Environments* (London: Royal United Services Institute, 2022), 28.
[18] Kaushal and Totten, *Amphibious Futures*, 13.

in northern Norway without a clear target for concentrated fires. As illustrated during Russia's initial assault on Kyiv, this can lead to forces being canalized and attritted by fires.[19]

A littoral contact layer comprising both maritime platforms and distributed ground-based strike assets placed under the control of the maritime component commander could, then, play a role comparable to that of alliance strike assets during the late Cold War when, by deploying in complex terrain and going emissions-dark, they forced the Russian Northern Fleet to allocate considerable resources to attempting to track them—eventually leading the fleet commander to request a tripling of its budget to better track elusive Western maritime assets.[20] By forcing the distribution of Russian ISR as well as scarce high-quality assault units, a littoral contact layer could have a comparable dislocating effect.

The Role of European Marines in a Littoral Contact Layer

A strike-centric contact layer in the littoral would, however, need to be enabled by a presence ashore. This is important for two reasons. First, all else being equal, it is easier to conduct reconnaissance at sea from the land than vice versa. The ability to track elusive and critical targets demands a forward-positioned contact layer. Second, infiltrating forces can impose dilemmas upon an opponent that complement the effect of fires from the littoral. Should a force disperse to elude easy detection, it becomes vulnerable to raiders, while concentration allows it to be engaged by fires.

This was illustrated in Exercise Green Dagger, which saw a force comprising 40 Commando of the Royal Marines and the Korps Mariniers operate ahead of 7th Marine Regiment against a U.S. Marine Corps opposing force. The 40 Commando was divided up

[19] Zabrodskiy et al., *Preliminary Lessons in Conventional Warfighting from the First Six Months of Russia's Invasion of Ukraine*.
[20] John Lehman, *Oceans Ventured: Winning the Cold War at Sea* (New York: W. W. Norton, 2018), 199.

into 12-person strike teams that operated ahead of a light defensive screen. The presence of distributed raiding strike teams of Marines posed considerable challenges to the opposing U.S. commander, who could not distribute his forces without raising the risk of raiding and was exposed to fires if he chose to concentrate both for the purpose of defense and to overrun the light marine raiding screen.[21]

European Marine forces that can no longer operate as conventional light infantry can, then, reorient themselves to play a role as a distributed inland contact layer for a strike-centric force operating in the littorals. Forces structured and equipped for this role could both support fires-centric counterparts and could also generate organic precision strike if equipped with loitering munitions such as the Israeli Hero, which could pose a threat to targets of opportunity from within a Russian integrated air defense system (IADS) rather than outside it.[22]

Opting for this type of disembarked will have a knock-on effect on surface connectors that will need to be optimized to support strike-centric operations rather than to carry heavier assets ashore. Work by the Royal Marines suggests that to keep amphibious shipping safe, future connectors will need to have ranges of up to 400 nautical miles as well as low observability against radar. In heavily denied or contested waters, surface connectors will be at risk from a range of sensors. However, the narrow fields of view of electro-optical and infrared sensors mean that radar will still be needed to cue systems such as unmanned aircraft systems carrying other types of sensor and a number of phenomena including subrefraction and superrefraction can be used to deceive radar.[23] There is, however, an unavoidable tradeoff between range, the dimensions and size to carry heavy equipment, and low observabili-

[21] Kaushal and Totten, *Amphibious Futures*, 24. On the history of raiding, see B. J. Armstrong, *Small Boats and Daring Men: Maritime Raiding, Irregular Warfare, and the Early American Navy* (Norman: University of Oklahoma Press, 2019).
[22] "HERO—Loitering Munitions: Series of High Precision Loitering Munition Systems," Rheinmetall.com, accessed 15 January 2025.
[23] Kaushal and Totten, *Amphibious Futures*, 25.

ty; one cannot combine all of these characteristics in the same craft. For example, a vessel can be long-ranged and have a low profile, but the dimensions of such a vessel necessarily preclude carrying at least some types of platforms on board.[24] This is a challenge under current assumptions that would see amphibious shipping support the insertion of a range of platforms into a theater. A concept of operations that emphasize the movement of 12-person teams with comparatively light enabling capabilities could remove some of the requirements for carrying capacity, enabling a focus on range and observability. In addition, a strike-centric approach to littoral warfare would incentivize a greater focus on multifunctionality with vessels being used as maneuver platforms, not connectors. For example, we might think of how the Iranian Islamic Revolutionary Guard Corps has used British-made bladerunner boats equipped with missiles or how Sweden's Amphibious Brigade is using surface maneuver vessels equipped with Patria NEMO 120-mm mortars to generate fires inland.[25] This need not entail a large increase in the cost of connectors, much of which is driven by the need for carrying capacity. Consider, for example, that China's Type 22 Catamaran, which is comparable (if not identical) to the littoral maneuver craft being described, costs $13 million—less than a landing craft air cushion (LCAC).[26]

One might argue that the cost of such an approach is interoperability with land forces, which is true to an extent. However, the movement of land forces ashore from surface connectors at distances of 30 nautical miles is becoming increasingly unlikely in any case given the A2/AD challenge, and extending the range of a vessel without sacrificing carrying capacity will add to the costs of

[24] Kaushal and Totten, *Amphibious Futures*, 45.
[25] Robin Häggblom, "Swedish Marines to Get Shipboard Mortars," *Naval News*, 23 May 2023.
[26] Kaushal and Totten, *Amphibious Futures*, 25; Thomas Newdick, "Now China Has Cruise Missile Carrying Catamarans Chasing Away Ships in the South China Sea," *Drive*, 8 April 2021; and Megan Eckstein, "Cost of US Navy's Ship-to-Shore Connector Breaches Nunn-McCurdy Law," *DefenseNews*, 14 June 2021.

both connectors and amphibious shipping that will have to carry much larger surface connectors.

Sustaining a Distributed Marine Force

A major challenge to the operations of the force described will be logistical support. It is the case that supporting a distributed disembarked force without creating a lodgement ashore is an inherently challenging task, but in many ways the concept of operations described provides a number of solutions to logistical challenges in the littoral.

One way in which redesigning European Marines as the forward edge of a littoral contact layer can achieve this is through making the force lighter and more specialized. Presently, amphibious shipping is designed to support a full spectrum of capabilities, including heavier assets such as armour, which are necessarily fuel intensive. If, however, the function of amphibious forces becomes the delivery of fires from the littoral and the disruption of adversary forces ashore, the outload can be reduced in certain ways. Vehicles such as the joint light tactical vehicle (JLTV) on which the U.S. Marine Corps is mounting the naval strike missile or the even lighter all-terrain vehicles, with which Marine forces can be equipped to support raiding, are relatively light and fuel efficient by comparison to heavier vehicles such as the BAE Systems Viking (BvS-10) amphibious armored all-terrain vehicle, much less the armor or armored fighting vehicles (AFVs) land forces operate and which amphibious shipping and logistical models must still prepare to support.[27] Furthermore, combining Marines and naval platforms optimized for littoral warfare into a single instrument that enables maritime strike to support a ground campaign can allow for the commander amphibious task force/commander landing force (CATF/CLF) model to be altered, since if the Ma-

[27] Xavier Vavasseur, "Here Is Our First Look at the USMC's NMESIS: NSM Being Launched from an Unmanned JLTV," *Naval News*, 28 April 2021.

rines are an extension of the fleet many command functions can be performed afloat rather than by a separate CLF ashore. This, in turn reduces the requirements for headquarters ashore, which are often still needed for larger-scale operations with the logistical costs these impose.[28] Distributed units ashore do not require large, disembarked headquarters and would largely be required to coordinate with each other on a lateral basis as well as with a headquarters afloat.[29]

The logistical "push" can also be managed differently. One approach might involve the creation of caches ashore in an escalating crisis where freedom of movement has not yet been contested. These caches can then be used by the raiding element ashore without the requirement for subsequent resupply (at least for a time). Such caches would be expensive (and politically difficult) to build up in peacetime but could be surged from amphibious shipping in a crisis. Irregular forces structured for raiding have often done this historically; the Viet Cong, for example, referred to the practice as "feathering the nest."[30] European amphibious forces can learn from this and adapt their approaches in both crisis and conflict since they will be fighting on known terrain. For example, the Royal Marines are currently conceiving a more prediction-based "logistic-push" model, in which supply needs are anticipated and deposited for forces to collect at their time of choosing.[31] This will rely on automated modeling, and low-cost UAVs capable of carrying large payloads over extended distances will be vital to making this model operational. Cargo drones capable of this function are already used in civilian contexts and could be adapted to military requirements.[32]

[28] In principle, the CLF can be kept afloat already but this is often the case only for activity at a smaller scale.
[29] Kaushal and Totten, *Amphibious Futures*, 34.
[30] Stephen Biddle, *Nonstate Warfare: The Military Methods of Guerillas, Warlords, and Militias* (Princeton, NJ: Princeton University Press, 2021), 288.
[31] Kaushal and Totten, *Amphibious Futures*, 43.
[32] Kaushal and Totten, *Amphibious Futures*, 43.

To be sure, such a model can be resource intensive in different ways, is open to compromise, and presents nonkinetic targeting opportunities to adversary electronic warfare. However, the removal of concentrated logistical nodes nonetheless reduces the prospect of catastrophic failure. One might see a steady loss rate in the face of adversary electronic warfare, which can be planned against. This is unlike a single discontinuous event, such as the destruction of a single concentrated hub, the effects of which are far harder to mitigate. This is not a silver bullet, of course, and the decision to adopt a push model may be easier for some assets than others. On use of artificial intelligence (AI)/autonomy, a heuristic for decision-makers might be that a push-driven model, in which the AI anticipates, is valuable in inverse proportion to the consequences of wrong.[33] So, for resources such as food or fuel, which are not expendable but are replaceable, it might be useful to do this on an anticipatory basis, while the movement of munitions will need to be more carefully considered.

A model that integrates amphibious forces into a littoral contact layer without the CATF/CLF distinction also has another advantage, namely the ability for the fleet commander to allocate resources based on need. Many means of supporting an amphibious force are also relevant to the wider fleet. For example, heavy lift UAVs can carry munitions and fuel for surface combatants including aircraft carriers and extra-large uncrewed undersea vehicles (XLUUVs) like the U.S. Navy's Orca have the capacity to carry large volumes of cargo ashore (if a docking station has been set up or if means of moving cargo over the last mile of coastal waters are at hand), but these assets will also be needed by the fleet for other functions such as ISR gathering.[34] It is unlikely that enough

[33] Avi Goldfarb, Ajay Agarwal, and Joshua Gans, *Prediction Machines: The Simple Economics of AI* (Boston, MA: Harvard Business Review Press, 2018), 30–32.
[34] "The First Fixed-wing UAV Lands on a Royal Navy Aircraft Carrier," *Navy Lookout*, 8 September 2023; and Xavier Vavasseur, "First Look at the US Navy's Orca XLUUV with Massive Payload Module," *Naval News*, 12 June 2024.

of these capabilities will be available for both a fleet commander and the commander of a landing force ashore. If the CATF/CLF distinction does not exist, however, then the commander in the littoral battlespace can use a shared pool of enablers to resource both the fleet and its disembarked forward ISR layer—prioritizing allocation as the situation demands.

Conclusions

While amphibious power projection is not necessarily a main line of effort in any European conflict, they will have an important role in both imposing multiple dilemmas on the Russian military and imposing both costs and delay on it in contexts where wider joint forces will have to contend with the twin challenges of a Russian military that can concentrate mass on a single narrow front and can disrupt key logistical nodes on which the timely mobilization of heavier elements of the joint force depends.

Achieving this will necessitate subsuming concepts for the employment of amphibious forces within a wider framework for littoral warfare that is inherently strike-centric. The ability to deliver fires from the littoral where Russia faces considerable ISR challenges remains a key advantage for the alliance and one that in many respects determines the roles of disembarked marine forces. The function of European Marines should, to a great extent, be enabling strike through a focus on both gathering ISR inland and displacing adversary forces through raiding in ways that enables the more effective employment of fires from the littorals.

An approach along these lines would have significant knock-on effects for the sustainment of amphibious forces. While not without its own challenges, the sustainment of a distributed force that falls under the control of a naval commander in the littorals can solve some logistical dilemmas. A more specialized force can reduce its strategic outload by removing the requirement to plan for certain types of sustainment. Moreover, the unification of command can allow for the efficient allocation of a broader spectrum

of enabling capabilities. Finally, as the prepositioned element of a littoral contact layer, Marines can be enabled during an escalating crisis in ways that reduce the resource burden and risk borne by the fleet once the crisis has evolved into a conflict.

Chapter
8

Owning the Littorals

Transforming Marine Aviation in the Twenty-first Century

By Kelly A. Grieco, PhD,
and Colonel Maximilian K. Bremer, USAF

Introduction

When the U.S. Marine Corps last released its aviation plan in 2022, media coverage and public commentary locked on a target: a reduction in the number of Lockheed Martin F-35B Lightning II fighter aircraft in some of its squadrons from 16 to 10.[1] It would keep the overall program of record of 420 F-35 aircraft but signaled future cuts were still on the table.[2] "U.S. Marine Corps Aviation is being significantly and needlessly decimated, another unforced error of Force Design 2030," responded three retired Marine Corps generals in the pages of *DefenseNews*. "No single weapons system better defines the Marine Air-Ground Task Force than the fighter/attack aircraft," they added, arguing, "As the Marine Corps' only fifth-generation, capable aircraft, the F-35 affords the Marine Corps a distinct advantage

[1] Richard R. Burgess, "Marine Corps Aviation Plan Reduces Number of F-35s in Some Squadrons, Keeps 420 F-35s Total," *Seapower Magazine* 66, no. 3 (April 2023).
[2] Aaron Mehta, "Top Marine 'Signaling' to Industry that F-35 Cuts Are on the Table," *DefenseNews*, 1 April 2020.

against peer and near-peer competitors. We believe the significant divestiture of F-35Bs in the active force was a terrible mistake."[3]

This very public and heated debate identified the wrong target—the number of F-35Bs—when the far more serious flaw in the *2022 United States Marine Corps Aviation Plan* was the complete absence of any discussion of small uncrewed aerial systems, or what are more commonly called drones.[4] A broad class of platforms, from commercial quadcopters, first-person view drones, military-grade small and medium uncrewed aerial systems, and loitering munitions have changed the character of war, especially the scope, scale, and persistent capability of air support to ground operations. The persistent and ubiquitous presence of intelligence, surveillance, reconnaissance, communications, and fires platforms is changing battlefields from Azerbaijan to Ukraine to Israel. Yet, Marine Corps Aviation—like the U.S. Air Force—clings to the glorious and costly traditional concept of crewed aircraft flying in support overhead.

The debate about specific platforms supporting this legacy concept obscures the real challenge: shaping doctrine, force structure, and capabilities during a time of sweeping technological change to ensure the Marine Corps, as well as the rest of the Joint force, is ready to fight and win the nation's wars now and in the future. Innovative thinking, not legacy ideas, is the answer. U.S. air superiority is under threat from not only mobile ground-based air defense systems and more advanced enemy fighter aircraft, but also a congested and contested air littoral—that is, the altitudes below where high-end fighters and bombers typically operate.[5] In the air littoral, adversaries can exploit a mix of old and new technologies—such as man-portable air defense systems, radar-

[3] James Amos, Terrence Dake, and Barry Knutson, "Unwise Divestments Are Crippling US Marine Corps Aviation," *DefenseNews,* 25 January 2023.
[4] *2022 United States Marine Corps Aviation Plan* (Washington, DC: Office of the Deputy Commandant for Aviation, Headquarters Marine Corps, 2022).
[5] Maximilian K. Bremer and Kelly A. Grieco, "The Air Littoral: Another Look," *Parameters* 51, no. 4 (Winter 2021): 67–80, https://doi.org/10.55540/0031-1723.3092.

guided antiaircraft artillery, cruise missiles, and dual-use drone technologies and loitering munitions—to deny U.S. air superiority.

Although the Marine Corps has shown it is clear-eyed about the challenge with *Force Design*, it still lacks doctrine and operational concepts to operate effectively in and under a contested air littoral. By employing sufficiently large numbers of smaller, cheaper, uncrewed systems in a distributed way, the Corps could increase both the costs and uncertainty of Chinese or Russian efforts to quickly seize territory and present their conquest as a *fait accompli*. Through this strategy of air denial, the United States would thus gain a more credible deterrent and defense.

Air Superiority Threatened

Aviation Operations, Marine Corps Warfighting Publication (MCWP) 3-20, hews to tradition. "The most important shaping operation performed by aviation is to gain air superiority," it reaffirms, underscoring that "air superiority is *essential* to the conduct of all functions of Marine aviation and therefore weighs heavily in creating conditions for successful aviation operations."[6] Accordingly, the Joint force has long sought to achieve at least air superiority, whether a theater-wide and enduring condition or one localized in time and geography. *Countering Air and Missile Threats*, Joint Publication (JP) 3-01, defines *air superiority* as "that degree of control of the air by one force that permits the conduct of its operations at a given time and place without prohibitive interference from air and missile threats."[7] The highest level of control of the air is *air supremacy*, wherein the enemy is "incapable of *effective* interference within the operational area using air and missile threats."[8]

[6] *Aviation Operations*, Marine Corps Warfighting Publication (MCWP) 3-20 (Washington, DC: Headquarters Marine Corps, 2018).
[7] *Countering Air and Missile Threats*, Joint Publication (JP) 3-01 (Washington, DC: Office of the Chairman of the Joint Chiefs of Staff, 2018), I-4, emphasis added.
[8] *Countering Air and Missile Threats*, I-4, emphasis added.

For decades, the United States has attained air superiority, if not air supremacy, over enemy battlefields. Overwhelming advantages in stealth aircraft and precision-guided munitions made it possible to strike across the depth and breadth of enemy territory from the outset of hostilities. The United States wielded this advantage to make quick work of enemy air forces, destroying fixed air defense systems, shutting down airfields, and shooting down the few surviving aircraft that dared to take to the skies.[9] The campaign to destroy enemy air defenses was swift and effective, with the United States achieving air superiority in the first hours and near total air supremacy from the earliest days of conflict. The Joint force fully exploited this asymmetric advantage, wielding the high ground to observe enemy ground forces and attack them when they massed or were on the move.[10] All that is now at risk.

While the United States spent the past three decades fighting third-rate militaries, as well as nonstate paramilitary and terrorist organizations, China modernized its military, investing in antiaccess/area-denial (A2/AD) capabilities, including mobile air defenses, coastal antiship missiles, and large numbers of land-attack cruise and ballistic missiles that make it more difficult and costly for the United States to project military power within the first island chain. As General Mark A. Milley, the former chair of the Joint Chiefs of Staff, testified to the Senate Armed Services Committee in 2019, "China went to school on us. They watched us very closely in the first Gulf War, the second Gulf War." He continued: "They watched our capabilities and in many, many ways they have mimicked those and they have adopted many of the doctrines and

[9] Phil M. Haun, Colin F. Jackson, and Timothy P. Schultz, eds., *Air Power in the Age of Primacy: Air Warfare since the Cold War* (New York: Cambridge University Press, 2022), 8.
[10] Phil M. Haun, *Tactical Air Power and the Vietnam War: Explaining Effectiveness in Modern Air Warfare* (New York: Cambridge University Press, 2024), 13–34, https://doi.org/10.1017/9781009364201.

the organizations, et cetera."[11] China's integrated air defense system can now credibly contest U.S. air superiority hundreds of miles or more from the mainland while its large and ever-expanding missile arsenal threatens U.S. military and allied airbases in the region, including those in Guam and Japan.[12] "We're the dominant military power on the planet until you get within about 1,000 miles of China, and then it starts to change," Secretary of the Air Force Frank Kendall has said, explaining, "The reason it starts to change is because of what China has invested in. They've gone after a suite of capabilities designed to deter and defeat us if we intervene in their part of the world."[13] In other words, the era of unrivaled U.S. air superiority is now over.

Double Down or Choose to Change?

Many airpower enthusiasts look at these developments and conclude the United States must spend whatever it takes to regain its military-technological edge in the air domain. They advocate for the Pentagon to invest aggressively in new and emerging technologies for next-generation penetrating stealth aircraft and air-dominance capabilities to recapture its asymmetric airpower advantage.[14] Specifically, the Air Force's Next-Generation Air Dominance (NGAD) program and the Navy's F/A-XX fighter design aim to secure U.S. air superiority in the future by leveraging new technologies, such as directed energy weapons and "loyal wingmen" drones or collaborative combat aircraft (CCA).

[11] *Hearing to Consider the Nomination of General Mark A. Milley, USA, for Reappointment to the Grade of General and to Be Chairman of the Joint Chiefs of Staff before the Senate Committee on Armed Services*, 116th Cong. (11 July 2019) (stenographic transcript of full committee session), 91–92.
[12] Kelly A. Grieco, Hunter Slingbaum, and Jonathan M. Walker, *Cratering Effects: Chinese Missile Threats to U.S. Runways in Guam and Japan* (Washington, DC: Stimson Center, 2024).
[13] Abraham Mahshie, "Kendall: 'Race for Technological Superiority with China' Warrants Divestments," *Air and Space Magazine*, 17 May 2022.
[14] LtGen David Deptula (Ret) and Doug Birkey, "The US Air Force's Next Generation Air Dominance Program Is Key to Mission Success," *DefenseNews*, 24 July 2019.

This "air superiority through technology" approach is based on an old formula: employing superior U.S. innovation to offset an adversary's other military advantages—whether it is time, geography, or force size. During the Cold War, the United States first used its technological advantage in strategic and tactical nuclear weapons and later a combination of stealth, precision-guided munitions, and satellite-based communications to substitute advanced technology for Soviet numerical superiority. In 2014, Robert O. Work, as deputy secretary of defense for President Barack H. Obama's administration, referred to these past efforts as the *first and second offsets* and proposed the United States pursue a third offset strategy to counter growing threats to American power projection and all-domain military dominance.[15] More recently, Work made the case with Eric Schmidt, an artificial intelligence-tech investor and former head of Google, for an Offset-X strategy, which envisions the Pentagon developing "emerging and disruptive technologies" to restore the technological superiority of the U.S. military over all potential adversaries.[16]

Similarly, many airpower analysts argue that the Pentagon should invest aggressively in new and emerging technologies for next-generation stealth aircraft and air-dominance capabilities to secure air superiority. "Advances in autonomy and other uncrewed systems technologies have created a unique opportunity to combine the lethality of 5th and 6th generation fighters with CCA that are designed to disrupt and defeat China's counterair operations," argues a report from the Mitchell Institute for Aerospace Studies. It adds: "Developing CCA as part of the Air Force's force design is a once-in-a-generation opportunity to enhance its near-term ca-

[15] Robert O. Work, deputy secretary of defense, "Remarks by Deputy Secretary Work on Third Offset" (speech, Brussels, Belgium, 28 April 2016).
[16] Justin Lynch et al., *Offset-X: Closing the Deterrence Gap and Building the Future Joint Force* (Arlington, VA: Special Competitive Studies Project, 2023), 1; and Eric Schmidt and Robert O. Work, "How to Stop the Next World War: A Strategy to Restore America's Military Deterrence," *Atlantic*, 5 December 2022.

pability and capacity to deter peer aggression."[17] Similarly, in 2021, General Kenneth S. Wilsbach, the then-commander of the Pacific Air Force who currently leads the Air Force's Air Combat Command, called the need to field more technologically advanced air superiority capabilities in the Indo-Pacific an "urgent operational need." "I am advocating for NGAD, and the weapons that go with NGAD are also important so we can stay relevant as our adversaries continue to advance," he said.[18] From this perspective, growing threats to U.S. air superiority are the result of Beijing closing the technological gap; those threats can therefore be reversed so long as the United States undertakes sustained and massive investments in futuristic next-generation technologies.

This approach is flawed for at least four reasons. First, the offset strategy is based on a set of largely untested assumptions about the relationship between technology and airpower's effectiveness. The underlying belief is that the first and second offsets were successful and therefore ought to serve as a template for maintaining U.S. superiority inside China's A2/AD envelope today. The first two offsets never faced the ultimate test of a Soviet invasion of Western Europe, however, making it difficult to assess the extent to which the West's qualitative technological edge might have succeeded in offsetting the quantitative advantages of the Soviet Union and Warsaw Pact.[19] Lacking a clear test of the theory in the Cold War, advocates claimed that America's lopsided victory in the 1991 Gulf War validated the offset model, but Saddam Hussein's Iraq was hardly the Soviet Union. The trouncing of the Iraqi military was so overdetermined—U.S. forces were substantially better trained and led than their Iraqi coun-

[17] Col Mark A. Gunzinger (USAF), MajGen Lawrence A. Stutzriem (USAF), and Bill Sweetman, *The Need for Collaborative Combat Aircraft for Disruptive Air Warfare* (Arlington, VA: Mitchell Institute for Aerospace Studies, 2024), 4, 6.
[18] Kris Obsborn, "The U.S. Air Force Is Going All in on 6th Generation Fighters," *National Interest*, 17 May 2021.
[19] Gian Gentile et al., *A History of the Third Offset* (Santa Monica, CA: Rand, 2021), 9–19, https://doi.org/10.7249/RRA454-1.

terparts—that drawing any definitive conclusions from the air war would be specious.[20]

Second, technology matters but far less than many airpower advocates often claim. In World War II, for example, Nazi Germany led in advanced aeronautics, including jet aircraft, cruise and ballistic missiles, and high-speed aerodynamics, but other factors—particularly superior numbers of pilots, aircraft, and weapons—mattered more. Take the Battle of Britain, for example. In popular imagination, it was dogfights between the British Vickers Supermarine Spitfire and the German Messerschmidt Bf-109 that ultimately decided the outcome, but even though the Spitfire was superior in many ways to the Bf-109 and more modern than the British Hawker Hurricane, it still shot down fewer enemy aircraft than the Hurricane during the summer and fall of 1940.[21]

The key to the British victory was neither the Spitfire nor radar alone but a series of organizational innovations for managing the air war, including the aircraft early warning, identification friend-or-foe, track management, aircraft vectoring, and all informed by careful operational research. These organizational processes—even if less glamorous than machines—allowed the Royal Air Force to maximize the efficient employment of its fighters and pilots against a much larger *Luftwaffe*.[22] There is a lesson for the Joint force today: better fighter aircraft and weapons technology offer some important advantages, but they alone cannot deliver air superiority to the United States.

Third, the "air superiority through technology" approach is prohibitively costly and now leaves the United States with a fleet that is too small and too fragile to win a war of attrition—more likely to

[20] Daryl G. Press, "Lessons from Ground Combat in the Gulf," *International Security* 22, no. 2 (Fall 1997): 137–46; and Stephen Biddle, "Gulf War Debate Redux: Why Skill and Technology Are the Right Answer," *International Security* 22, no. 2 (Fall 1997): 163–74.
[21] Christer Bergström, *The Battle of Britain: An Epic Conflict Revisited* (Havertown, PA: Casemate, 2015), 55–58.
[22] John R. Lindsay, *Information Technology and Military Power* (Ithaca, NY: Cornell University Press, 2020), 71–108.

be lost on the ground than in an air-to-air matchup—against a peer or near-peer adversary. On average, successive generations of U.S. warplanes cost two-and-a-half times more to acquire than those they replace. For example, the Lockheed Martin F-22 Raptor cost approximately $250 million apiece, a nearly 400 percent increase over the $65 million McDonnell Douglas F-15 Eagle it replaced.[23] Increasing technological complexity has also driven up operations and maintenance costs, with most of the F-35 program's costs—approximately $1.3 trillion associated with sustainment of the aircraft—projected to exceed total acquisition costs.[24] As a result, as U.S. fighter aircraft (and the weapons they employ) have become ever more capable, but they have also become progressively more expensive, which has reduced the overall size of the fleet.

The Joint force now finds itself at a crossover point, where exquisite capabilities cannot compensate for too few aircraft and munitions. Forty years ago, Norman Augustine, former undersecretary of the Army, foresaw this moment of reckoning, warning, "In the year 2054, the entire defense budget will purchase just one aircraft." He added wryly: "This aircraft will have to be shared by the Air Force and Navy 3-1/2 days each per week except for leap year, when it will be made available to the Marines for the extra day."[25] In pursuing an offset strategy to maintain U.S. air superiority, the U.S. Air Force, Navy, and Marine Corps are all left with air forces built around small numbers of exquisite and hard-to-replace platforms. As a result, the loss of anything more than a few U.S. fighter aircraft would seriously degrade American airpower capabilities.

[23] Steven M. Kosiak, *Is the US Military Getting Smaller and Older: And How Much Should We Care?* (Washington, DC: Center for New American Security, 2017), 4.
[24] *Testimony before the Subcommittee on Readiness, Committee on Armed Services, House of Representatives on F-35 Sustainment: DoD Faces Several Uncertainties and Has Not Met Key Objectives*, 117th Cong. (28 April 2022) (statement of Diana Maurer, director, Defense Capabilities and Management, Government Accountability Office).
[25] Norman Augustine, *Augustine's Laws*, 6th ed. (Reston, VA: American Institute of Aeronautics and Aeronautics, 1997), 107.

Winston Churchill once famously said of Admiral Sir John Jellicoe, the commander-in-chief of the Royal Navy's Grand Fleet in the First World War, "He was the only man on either side who could lose the war in an afternoon."[26] Churchill's criticism mainly spoke to Jellicoe's shortcomings as a commander, but they also alluded to the fact that the Royal Navy could not afford to lose even a single battle and thereby lose control of the seas, effectively leaving Britain defenseless against the German High Seas Fleet. Similarly, today, the United States cannot afford to lose many of its fighters and remain a combat-credible fleet. In these circumstances, even the mere threat of targeting and strike, including while aircraft are vulnerable on the ground, could be enough to deny air superiority to the United States in a future war.

Finally, while addressing high-end capabilities is important, the race to build the next-best air superiority fighter tends to miss the broader point: small drones, low-flying missiles, and loitering munitions present a threat to air control from below the altitudes of conventional air superiority. Just as the emergence of the submarine, the self-propelled torpedo, and mines during the early twentieth century added subsurface threats in the contest for sea control, low-flying assets add a third dimension—that of vertical space—to the contest for air control. Even if traditional fighters and bombers manage to gain air superiority in the "blue skies," the airspace below them remains contested. These threats are converging at the boundary between the Earth's surface and the blue skies and transforming what Italian airpower theorist Giulio Douhet referred to as the *coastline of the air* and we term the *air littoral* into the more challenging and important contest for control of the air.[27] That contest also requires a different set of aerial capabilities to compete effectively.

[26] Winston Churchill, *The World in Crisis: 1916-1918*, vol. 1 (New York: Charles Scribner's Sons, 1927), 106.
[27] Bremer and Grieco, "The Air Littoral: Another Look," 67–80.

The Air Littoral

This *air littoral*, generally located below 15,000 feet, is defined as the "area from the Coordinating Altitude to the Earth's surface, which must be controlled to support land and maritime operations and can be supported and defended from the air and/or the surface."[28] Three trends have converged to make the air littoral central to the contest for air control. First, the so-called Fourth Industrial Revolution continues to usher in technological breakthroughs in robotics, artificial intelligence, machine learning, microelectronics, additive manufacturing (3D printing), and material sciences, among others, that now make it possible to employ large numbers of small and cheap but lethal systems in the air littoral. In addition to numerous radar-guided antiaircraft artillery (AAA) guns and shoulder-fired man-portable air defense systems (MANPADS), small uncrewed aerial systems—or drones—loitering munitions, and cruise missiles offer new opportunities to access and exploit the air littoral.

The war in Ukraine has offered a first glimpse of this future. Above Ukrainian battlefields, there are so many drones in operation that they reportedly fly into each other.[29] "Today, the Vuhledar area has turned into the 'Frankfurt Airport': a frenzied traffic of drones," quipped one Ukrainian drone pilot. "It's like a crossroads in India," he added. Indeed, the skies are so congested with small drones that Ukrainian and Russian forces are often unsure—at least, at first—whether a drone overhead is friend or foe.[30]

Second, unlike the last two high-tech revolutions in military affairs—nuclear weapons and the information age—today's technological breakthroughs are occurring in an era of open innovation.

[28] This definition draws from the Joint doctrinal definitions of the maritime littorals. See *Joint Maritime Operations*, JP 3-32 (Washington, DC: Office of the Chairman of the Joint Chiefs of Staff, 2018), I-5.

[29] David Axe, "There Are So Many Explosives-Laden Drones Flying over Southern Ukraine That They're Running into Each Other," *Forbes*, 28 August 2023.

[30] Vlad Abramov, "Have You Seen How a Shepherd Dog Drives Sheep? We Did the Same with the Russians with the Help of Drones—UAV Pilot Mykola 'Canada' Voroshnov," *Yhiah Agency*, 28 August 2023.

As the political scientist Audrey Kurth Cronin argues, these earlier revolutions in military affairs occurred in a closed context, when government-funded programs drove the technological development of new weapon systems.[31] The technologies that drove past offsets—nuclear weapons, stealth aircraft, and precision-guided munitions—had few commercial applications, allowing governments to limit access through secret programs, security classifications, and restrictive copyrights. In this context, the barriers of entry were high, with only the major powers possessing the financial, organization, technological, and scientific resources required to build effective air forces.[32] Closed innovation also made an offset strategy viable, as air forces with the most advanced aircraft and weapon systems were able to prevent—or at least delay—the transfer and proliferation of these military technologies. Even marginal improvements to existing technologies—for example, more effective stealth or even more precise missiles—could help to sustain a military advantage.[33] Indeed, the U.S. stealth and precision-guided munition advantages endured for nearly three decades before U.S. adversaries like Russia and China closed the gap in these second-offset technologies.[34]

Today, however, the commercial sector, not state-funded laboratories and weapons programs, is driving technological progress. Because these technologies—robotics, artificial intelligence, big data analytics, and 3D printing—are inherently dual-use, cheap, and easy to use, they diffuse globally in short order. By combining "clusters of technologies together," Cronin explains, state and nonstate actors—or even individuals—can "create new forms and uses, both good and bad—well beyond whatever their original inventors had

[31] Audrey Kurth Cronin, *Power to the People: How Open Technological Innovation Is Arming Tomorrow's Terrorists* (New York: Oxford University Press, 2020), 19–23.
[32] Sebastian Ritchie, *Industry and Air Power: The Expansion of British Aircraft Production, 1935–41* (London: Routledge, 1997); and Ferenc A. Vajda and Peter G. Dancey, *German Aircraft Industry and Production, 1933–1945* (Warrendale, PA: SAE International, 1998).
[33] Cronin, *Power to the People*, 11, 201.
[34] Thomas G. Mahnken, "Weapons: The Growth and Spread of the Precision-Strike Regime," *Daedalus* 140, no. 3 (Summer 2011): 45–57, https://doi.org/10.1162/DAED_a_00097.

in mind."[35] For example, Houthi rebels employ a mix of military and commercial-grade drones, laden with explosives, for precision strikes. They also now field their own homegrown designs, obtaining easily accessible off-the-shelf engines, servo actuators, and electronics through a network of intermediaries and using 3D printers to create other components for their missiles and drones.[36]

Open innovation thus levels the playing field, empowering a wide range of actors to contest and exploit the air littoral. Dual-use technologies are not simply a "poor man's air force," however, as China is investing heavily in these areas to gain a military advantage. Indeed, the People's Liberation Army (PLA) already makes extensive use of off-the-shelf drones (the Chinese company DJI is the world's largest commercial drone manufacturer) and has accelerated efforts to build an "intelligentized" military and integrate them into operational concepts, including autonomous swarms for attritional warfare.[37] Because these technologies will be widely available in the commercial market, however, any technological advantage the United States or China might achieve in this age is likely to be short-lived. All of these developments thus make the pursuit of another offset strategy impracticable.

Finally, these technological advances open new possibilities for airpower strategy and doctrine. For most of airpower's history, the contest for control of the air was won or lost in the blue skies—that is, the airspace where fighters and bombers typically operate. If an air force achieved air superiority in the blue skies, it also gained

[35] Audrey Kurth Cronin, "Technology and Strategic Surprise: Adapting to an Era of Open Innovation," *Parameters* 50, no. 3 (Autumn 2020): 73, https://doi.org/10.55540/0031-1723.2675.

[36] M. Mutschler and M. Bales, "Liquid or Solid Warfare?: Autocratic States, Non-State Armed Groups and the Socio-Spatial Dimension of Warfare in Yemen," *Geopolitics* 29, no. 1 (2024): 319–47, https://doi.org/10.1080/14650045.2023.2165915.

[37] Chinese military writings foresee a shift in warfare from *informationization* (or network warfare) to *intelligentization* (which refers to changes brought about by the development of AI, quantum computing, and big data). See *In Their Own Words: Science of Military Strategy 2020* (Montgomery, AL: China Aerospace Studies Institute, Air University, 2022), 333.

a measure of control extending to the ground. Thus, the decisive contest occurred in the blue skies, whether between attacking formations and defending fighters, such as in the 1940 Battle of Britain, or between attacking aircraft and surface-to-air missiles, as in the U.S. wars in Iraq. Of course, air control was never absolute. During the 1998–99 Kosovo conflict, for example, NATO air forces gained air superiority over the blue skies, but they remained above 15,000 feet to avoid threats from Yugoslavia's AAAs and MANPADS. Allied warplanes could still deliver their bombs from above 15,000 feet, even if the positive target identification and damage assessment was more challenging.[38]

The difference today is that adversaries can more easily outmaneuver blue-skies air forces. The blue skies are not only no longer the sanctuary they once were to NATO aircraft in Kosovo, but they also no longer confer the same asymmetric operational and tactical advantages as in the past to the side in control of them. Air superiority in the blue skies was once a prerequisite for an air force to be able to freely operate specialized aircraft for other aerial missions—including battlefield interdiction and close air support; intelligence, surveillance, and reconnaissance (ISR); airlift; and medical evacuation—without incurring serious losses. Today, however, air forces increasingly bypass the blue skies and instead access and exploit the air littoral to conduct many of these missions—especially ISR and direct attack.

Despite the claims of strategic bombing zealots, including Billy Mitchell, John Warden, and David Deptula, airpower is most effective when employed as part of joint combined arm operations. The airpower theorist Phil Haun argues airpower is most effective when it deters an enemy's fielded forces from concentrating and maneuvering. He asserts that "air power's asymmetric advantage is its ability to locate, and attack massed and maneuvering armies"

[38] Benjamin S. Lambeth, *NATO's Air War for Kosovo: A Strategic and Operational Assessment* (Santa Monica, CA: Rand, 2001), 21–22, https://doi.org/10.7249/MR1365.

because it places enemy ground forces on the "horns of a dilemma." If they concentrate and maneuver, they will face almost certain destruction from lethal air strikes, but if they disperse and hide, they cannot concentrate and maneuver to conduct the large-scale breakthrough and exploitation operations required to seize territory.[39] When airpower is most effective, it has no need to destroy armies, because it has already denied the enemy its preferred strategy of massing at the decisive point. "Just as the better measure of a police force is not the total arrests made but the number of crimes committed," Haun observes, "an air force should be evaluated not by the number of targets destroyed but by how air power affects the enemy's decision-making."[40]

Militaries can now leverage this traditional airpower advantage by crowding the skies of the air littoral. In Ukraine, for example, the blue skies are mostly empty of warplanes, but the air littoral is congested. Drones in the air littoral are a persistent presence and threat over the frontlines, with the movement and massing of troops and vehicles made extremely dangerous.[41] A Ukrainian drone operator, fighting in the Kharkiv region, observed, "Nobody really knows how to advance right now," concluding that it was "almost impossible [to achieve a decisive breakthrough] in an era of cheap and lethally accurate drones."[42] The area between the opposing lines is known as the "the death zone," with another Ukrainian drone operator warning that those who dare to move—whether Ukrainian or Russian—are spotted by the other side's drones and "dead immediately."[43]

[39] Haun, Tactical Air Power and the Vietnam War, 13–34.
[40] Haun, *Tactical Air Power and the Vietnam War*, 1–2.
[41] Siobhan O'Grady and Kostiantyn Khudov, "Drones Are Crowding Ukraine's Skies, Largely Paralyzing Battlefield," *Washington Post,* 14 April 2024.
[42] Luke Harding, "Cheap but Lethally Accurate: How Drones Froze Ukraine's Frontlines," *Guardian*, 25 January 2024.
[43] O'Grady and Khudov, "Drones Are Crowding Ukraine's Skies, Largely Paralyzing Battlefield."

This saturation of the air littoral—with everything from cheap quadcopters and first-person racing drones to loitering munitions and military-grade systems—has largely prevented either side from succeeding in a breakthrough campaign. This drone-saturated airspace has delivered tactical airpower's main advantage—denying an enemy the ability to concentrate and maneuver. The effect on the enemy army is the same—whether it is achieved from the air littoral or the blue skies.

Air Denial through Cheap Mass

What do these developments portend for the future of U.S. military operations, especially the doctrine and tactics of the Marine Corps? The bad news is that U.S. ground forces are no longer safe from enemy aerial attacks. In January 2024, three American soldiers were killed and dozens more injured when a one-way attack drone struck a U.S. military outpost in Jordan.[44] For years, U.S. military leaders have warned about the threat. As General Charles Q. Brown Jr., the current chair of the Joint Chiefs of Staff and the then-Air Force Chief of Staff cautioned four years ago, "For decades, American, allied, and partner warfighters have felt safe with top cover and strategic deterrence our air forces have provided. . . . These assumptions no longer hold true today."[45] The 2016 *Marine Corps Operating Concept* was even more blunt: "Tomorrow's fights will involve conditions in which 'to be detected is to be targeted is to be killed'."[46]

To its great credit, the Marine Corps more than any other Service has opened its eyes to new military realities and embraced change. *Force Design* reoriented the Corps from conducting counterinsurgency operations in the Middle East to supporting the Navy's sea-denial operations against China in the Indo-Pacific by

[44] Michael R. Gordon, "Three U.S. Troops Killed in Drone Attack in Jordan," *Wall Street Journal*, 28 January 2024.
[45] Charles Q. Brown, *Accelerate Change or Lose* (Washington, DC: Department of the Air Force, 2020), 3.
[46] *Marine Corps Operating Concept: How an Expeditionary Force Operates in the 21st Century* (Washington, DC: Headquarters Marine Corps, 2016), 6.

widely dispersing Marines to locations within range of China's A2/AD envelope. The 2019 *Commandant's Planning Guidance* states: "Stand-in Forces are designed to generate technically disruptive, tactical stand-in engagements that confront aggressor naval forces with an array of low signature, affordable, and risk-worthy platforms and payloads."[47] This vision also includes equipping companies, platoons, and squads with their own reconnaissance-strike capabilities, including small drones and loitering precision munitions.[48] The Marine Corps is thus not only reforming to make itself more resilient and harder to target in the face of the enemy air littoral threats, but it is also looking to access and exploit the air littoral to its own military advantage.

Currently, however, both the Corps and the Joint force lack doctrine and operational concepts for the air littoral.[49] This is a missed opportunity, especially because the United States—alongside its allies and partners—could more effectively leverage the air littoral to deter and, if necessary, defeat Chinese aggression. Specifically, a doctrine of volumetric defense would employ defense in depth, both laterally (planar distance, or range) and vertically (altitude).[50] The outer (stand off and precision) layer would consist of a mix of different cyber effects, sensors, platforms with air-to-air missiles, and ground-mobile long- and medium-range surface-to-air missiles to cover the approaches from the blue skies. The inner (stand in and mass) layer would include thousands of antiaircraft guns, missiles, rockets, drones, and loitering munitions to deny control of the air littoral to the adversary. These systems are vulnerable to electronic countermeasures—as the war in Ukraine has shown—but because

[47] David H. Berger, *Commandant's Planning Guidance* (Washington DC: Headquarters Marine Corps, 2019), 10.
[48] Robert Work, "Marine Force Design: Changes Overdue Despite Critics' Claims," *Texas National Security Review* 6, no. 3 (Summer 2023): 81–98, http://dx.doi.org/10.26153/tsw/47411.
[49] *Unmanned Aircraft Systems Operations*, MCWP 3-20.5 (Washington, DC: Headquarters Marine Corps, 2016).
[50] Col Maximilian K. Bremer and Kelly A. Grieco, "Assumption Testing: Airpower Is Inherently Offensive," Stimson Center, 25 January 2023.

these systems are so cheap and quick to build, the United States could field them in large numbers and sustain high rates of attrition to them.[51]

Here is the good news: air warfare increasingly favors the operational defense over offense, meaning it is much easier to deny air superiority than to gain it outright, and, if leveraged appropriately, these developments would give the United States—and its allies and partners—a substantial advantage over China and Russia. This change in the character of air warfare is especially pertinent to the already challenging nature of amphibious landings; the Marine Corps should lead the way in understanding and exploiting those changes to advantage.

A strategy of air denial aligns well with the United States' political and military objectives: to maintain the territorial status quo in Europe and the Indo-Pacific and prevent the emergence of Chinese regional hegemony.[52] This requires a military strategy that can persuade China that it cannot achieve a *fait accompli* by increasing the costs and uncertainty associated with military aggression; neither Beijing nor Moscow want to start a war they cannot win. Take Chinese military threats in the Taiwan Strait, for example. Given that offensive maritime and amphibious operations cannot succeed without air superiority—including in the air littoral—U.S. strategy and doctrine should be oriented toward the goal of convincing China that it cannot obtain it.[53]

Specifically, saturating the air littoral over landing beaches and nearby waters with continuous waves of small sensing, decoy, and weaponized drones would deny China control of the air littoral and create numerous hard-to-solve and time-consuming dilem-

[51] Carlotta Fall and Vladyslav Golovin, "Some U.S. Weapons Stymied by Russian Jamming in Ukraine," *New York Times*, 25 May 2024.
[52] *National Security Strategy* (Washington, DC: Office of the President, White House, 2022).
[53] Lyle Goldstein, "The Hard School of Amphibious Warfare: Examining the Lessons of the 20th Century's Major Amphibious Campaigns for Contemporary Chinese Strategy," *Asia Security* 19, no. 1 (2022): 26–42, https://doi.org/10.1080/14799855.2022.2148525.

mas for the PLA. Drones cycled fast enough into the airspace could overwhelm China's targeting process and in turn inflict significant losses on its invasion forces. Chinese commanders would have to decide how much "clearance" is needed in the air, and for how long, and risk depleting their antiair missiles in the process. It would also put them on the losing end of the cost curve, as destroying enough of these cheap drones will only grow harder and costlier as autonomous drone swarms arrive in the air littoral.

Conclusion

The Corps' most recent aviation plan rightly addresses high-end threats, but the debate over the future of F-35 program risks missing how low-cost drones, cruise missiles, and loitering munitions are changing air warfare in profound ways. This emerging operational environment demands innovative thinking, including reimagining traditional concepts of air superiority and embracing alternative strategies of air denial. As Thomas Kuhn pointed out in *The Structure of Scientific Revolutions*, innovation occurs when an established paradigm—or set of foundational beliefs—cannot solve new problems. When this occurs, the search for an alternative paradigm provides an opening for innovation and creative solutions.[54] Increasingly, the American airpower paradigm—which prioritizes the blue skies over air littoral, fighters and bombers over drones, and air superiority over air denial—no longer holds true.

The Marine Corps ought to come to terms with this paradigm shift and embrace a more radical approach to Marine Aviation, bringing it closer to and increasing integration with the force it supports, rather than pushing it farther up and out. As drones become cheaper and more available, the Corps has the chance to make every Marine not just a rifleman, but an aviator as well. It ought to develop new operational concepts and tactics for contesting the air

[54] Thomas Kuhn, *The Structure of Scientific Revolutions* (Chicago: University of Chicago Press, 1962), 1–9.

littoral, including new swarming tactics of denial with thousands of cheap drones providing suppressing fires and close-in precision fires. Instead of investing most of its aviation budget in small numbers of capable but costly and logistically hard-to-support high-end fighters, the vast majority should be designated for uncrewed aircraft and missiles to generate sufficient mass in support of amphibious and operationally defensive ground operations. It should also prepare to operate a wide variety of drones, from Group 1 and 2 small unmanned aerial systems (UAS), such as commercially built quadcopters and first-person drones, as well as loitering munitions, to Group 3 or above UAS, like the General Atomics MQ-9 Reaper or Kratos XQ-58 Valkyrie. This variety of systems, alongside more robust air and missile defense capabilities, would arm the Corps to operate in and contest both the blue skies and air littoral. Specifically, the Aviation Combat Element should be responsible for conducting air denial—as part of its antiair warfare function—in support of Marine Air-Ground Task Force, Joint, or combined arms. Ground combat elements will also increasingly possess their own organic UAS capabilities. Only Marine aviators have the specialist expertise and comprehensive understanding of integrated airpower needed to effectively employ massed uncrewed systems as more than flying artillery and make the achievement of air denial a priority. As the stand-in force, Marine Aviation will need be able to sustain high numbers of losses. Air forces built around a small number of expensive and hard-to-replace aircraft are not aligned with *Force Design*.

Marines are no strangers to innovation, and they are known for adapting and overcoming in the face of obstacles and adversity. Today, that requires the adoption of a strategy of air denial at scale and operating in the air littoral to deter and defend against adversary aggression in the service of U.S. national security interests.

Chapter

9

U.S. Marine Corps and Stability Policing

A Necessary Update to Stability Operations

By Lieutenant Colonel Kurtis Kjobech, USMC,
and Joanna Siekiera, PhD

Introduction[1]

Future roles of the U.S. military in twenty-first century conflicts will be and have already been based on priceless experiences from past wars, missions, operations, and exercises. Every success and failure gives a new perspective to be incorporated into future planning and executing, to save lives, to be effective, and to secure long-lasting peace and stability. Making sure democratic values are brought back (or are introduced) to the area of operation has always been a goal of U.S.-led missions. An original member of the North Atlantic Treaty Organization (NATO), the United States helps to develop and also abides by the alliance's guidance and standards. One of many NATO standards, unfortunately not well known and thus not widely deployed, is stability policing. Incorporated in 2016 to the NATO family, stability policing describes a new model where military (green) tools and mind-

[1] The inspiration for this chapter was LtCol Kurtis Kjobech's contribution "Covan in Iraq" in Joanna Siekiera, ed., *NATO Stability Policing—Beneficial Tool in Filling the Security Gap and Establishing the Rule of Law, and a Safe and Secure Environment* (Vicenza, Italy: NATO Stability Policing Centre of Excellence, 2024).

sets are supported with police-like (blue) mindsets.[2] The essence lies in the ability of stability policing forces to fill in the security gap in strategy, policy, and practice.

According to *Allied Joint Doctrine for Stability Policing*, NATO Standard Allied Joint Publication 3.22, stability policing has been defined as: "Police related activities intended to reinforce or temporarily replace the indigenous police in order to contribute to the restoration and/or upholding of the public order and security, rule of law, and the protection of human rights."[3]

In times of national or regional turmoil, the heavy hand of the military can be an effective tool to quell violence and reestablish order. However, transitioning from military intervention to civil governance and the rule of law is crucial for long-term stability and peace. This chapter offers a unique perspective on how stability policing looks in practice, how it is being performed, and what kind of benefits it brings to the overall success of a mission—not only militarily but also in a broader strategic concept. Yet, this work is not only a theoretical study; indeed, it explores one of the authors' (Kurtis Kjobech) personal experiences during Operation Iraqi Freedom. The chapter explicitly focuses on the Multi-National Security Transition Command–Iraq's (MNSTC-I) role and its efforts in rebuilding the Iraqi Security Forces (ISF). By connecting these to NATO stability policing concepts, we can eventually understand how military and police operations can contribute to sustained stability and security.

NATO stability policing is finally an important tool for the force commander during a conflict and for post-conflict reconstruction and peacekeeping missions. It involves building and strengthening local police forces, ensuring adherence to the rule of law, and supporting civil authorities in maintaining stability. This chapter

[2] *Allied Joint Doctrine for Stability Policing*, NATO Standard Allied Joint Publication (AJP) 3.22 (Brussels, Belgium: NATO Standardization Office, 2016).
[3] "Part II, Terms and Definitions," in *Allied Joint Doctrine for Stability Policing*, AJP-3.22, LEX-2.

explores these concepts through the lens of Lieutenant Colonel Kjobech's deployment in Iraq, highlighting practical applications and lessons learned.

Personal Background and Experience

Deployment Overview

In January 2006, I was assigned to Military Transition Team (MTT), 1st Battalion, 7th Marine Regiment, with the primary mission to enable the 3d Battalion, 2d Brigade, 7th Iraqi Army Division.[4] Thirteen U.S. servicemembers, including 11 Marines and 2 airmen, along with 2 Iraqi interpreters, comprised the team. Our mission was to train, mentor, and advise our Iraqi counterparts in intelligence, communications, fire support, logistics, operations, and infantry tactics.

Our area of responsibility was a segment of Main Supply Route Bronze, following the Euphrates River from the Syrian border town of al-Qaim down to Hit. Our forward operating base was in the town of Rawah, Iraq, a key crossing point where the Euphrates curves south. This strategic location made it a critical point for both logistical support and insurgent activity.

Daily Operations and Challenges

In Rawah, our team lived and worked closely with the Iraqi soldiers, sharing their hardships and challenges. Daily activities included patrols in town and along the outskirts, looking for insurgent activity, and interacting with local officials to build rapport and understand local concerns. Each team conducted more than 100 patrols during the seven-month tour. These patrols aimed to train the security forces and show presence to the locals, hopefully deterring insurgent activity.

[4] To underscore the personal and therefore authentic experience of one of the authors, the authors decided to use the first-person narrative in this part of the chapter.

One of the significant challenges was the cultural differences between the U.S. military approach and the Middle Eastern execution timelines. Our penchant for rigid planning and execution often clashed with what was culturally typical for Muslim countries: "Insha'Allah," meaning "if/when Allah wills it." This difference was evident in our operations, from lax patrol schedules to lengthy response times during engagements. And just as *Allied Joint Doctrine for Stability Policing* states: "Understanding the local cultural norms will be paramount when it comes to choosing Stability Policing methods. Not only does one have to consider the environment, but also the customs and traditions that which [*sic*] can affect the outcome of Stability Policing activities."[5] Understanding and adapting our practices and, importantly, our mindset to these cultural nuances was crucial for the success of the mission.

Key Incidents and Tactical Responses

Attacks were regular but infrequent, with adversary forces in the area of operations that were not prone to well-coordinated assaults. We mainly encountered indirect fire and short bursts of small-arms fire. The Iraqi patrols' preferred response was what we called the Iraqi Death Blossom, where all soldiers immediately fired in all directions until their magazines were empty. This method, while intended to lay down suppressive fire, often resulted in dangerous situations for civilians and U.S. servicemembers alike, especially if you were anywhere outside the circle.

Indirect fire through rockets and mortars was another common threat, often occurring in the evenings. One notable incident involved our interpreter, who was making a phone call on the roof when a mortar landed nearby but did not explode. He sustained a minor injury from concrete shrapnel hitting his leg but was very relieved that it was not much, much worse, highlighting the constant dangers we faced.

[5] *Allied Joint Doctrine for Stability Policing*, 2-1.

In April 2006, the area of operations experienced three suicide bomb attacks. The most severe incident on 11 April targeted U.S. Army and Iraqi soldiers at vehicle checkpoints, resulting in fatalities and injuries. These attacks underscored the volatile environment and the continuous threat from insurgent forces. Responding to these attacks required coordinated efforts between our team, the Iraqi forces, and the partnered U.S. Army unit.

Intelligence Operations

As the intelligence officer, my primary task was facilitating intelligence sharing between our Iraqi unit and the partnered U.S. Army Stryker unit, the 4th Squadron, 14th Cavalry. This collaboration was crucial in identifying and countering insurgent activities. Major Hassan and Sergeant Major Ali, the two Iraqi soldiers I worked with, were instrumental in gathering and assessing intelligence. Despite the lack of formal training, their real-world experience and local knowledge were invaluable.

Stability policing activities are successful if based on principles of local ownership, accountability, responsiveness to the security needs of the local population, and based on their trust.[6] The need for NATO to be equipped with a military capability of civil policing became apparent during the 1997 Stabilization Force (SFOR) operation in Bosnia and Herzegovina. However, the local police were in many cases not willing to guarantee the security of the Bosnian population and were also confronted with public security threats they were unable to handle.[7] Therefore, partnership with local authorities and population through training, empowering, and preparing the local police and military forces for their initial role in their society took the highest priority in the NATO stability policing concept. As the manual states: "The development of a professional police force, trusted by and responsive to the needs

[6] Hans Hovens, "Stability Policing," *Militaire Spectator* 186, no. 11 (2017): 484–95.
[7] Capt Patrick Crossland, "Bridging the Security Gap: Stability Policing in a Non-Article 5 Environment," *Allied Rapid Reaction Corps* 11 (2020): 89–90.

of society, is critical to maintaining ROL (Rule of Law), providing public safety, fostering an environment in which governance can flourish, and providing situational awareness and criminal intelligence."[8]

We established regular targeting meetings with the U.S. forces' intelligence section and HUMINT Exploitation Team (HET). Through these meetings and the use of high-powered cordless phones (HPCP), we set up a network tip line, which significantly improved intelligence capabilities. Sergeant Major Ali had a knack for building rapport with the local leaders and the people who lived in the town. This network allowed for better coordination and more effective operations against insurgent forces. Having an anonymous tipline provided more information about insurgents operating in our area of operations and thus helped Coalition forces focus their operations to counter them. For example, patrols were sent out at times that we suspected insurgent activity with the intent to disrupt them or observation posts were established to catch them in the act.

Building Relationships and Trust

Building trust with the local population and Iraqi forces was critical to our mission. Regular interactions with local leaders and officials helped us understand the community's needs, modus operandi, and concerns. This engagement was essential for effective community policing, a key aspect of NATO stability policing. Stability policing bridges the public security gap both through timely deployment and by performing heavy-duty law enforcement functions that require proficiency in the organized use of "less-than-lethal" force.[9] We aimed to create a more stable and secure environment by fostering these relationships through regular interaction and by

[8] *Allied Joint Doctrine for Stability Policing*, 2-3.

[9] Michael Dziedzic and Christine Stark, "Bridging the Public Security Gap: The Role of the Center of Excellence for Stability Police Units (CoESPU) in Contemporary Peace," United States Institute of Peace, 16 June 2006.

showing that security forces are indeed helping to establish a more peaceful environment.

Our efforts to build rapport and trust were challenging. Corruption and "ghost rolls" within the Iraqi forces often hindered our progress. Ghost rolls occurred when the pay rosters were filled with nonexistent soldiers to line the pockets of unit leaders. However, we established a functional and cooperative relationship with our Iraqi counterparts through persistent engagement and collaboration. These relationships were crucial in ensuring the effectiveness of our training and mentoring efforts. Just as the state of war does not de facto terminate with the cease of fire, the state of conflict does not terminate with the withdrawal of the troops. Training and mentoring were not only oriented on bringing stability policing to the current war, but also equipping the local forces for crisis management, post-conflict tensions, and all-out warfare.[10]

Operation Iraqi Freedom and Stability Policing

Detailed Analysis of Operation Iraqi Freedom

Operation Iraqi Freedom, initiated in March 2003, aimed to depose the existing regime and eliminate weapons of mass destruction. The mission quickly shifted to counterinsurgency operations and national reconstruction efforts. A crucial part of the strategy was establishing MNSTC-I in 2004 with the mission to train and equip ISF to maintain internal security and stability.

The U.S. and Coalition forces faced significant challenges in rebuilding the ISF. These included logistical constraints, cultural differences, and the ongoing threat from insurgent forces. Despite these challenges, the MNSTC-I trained and equipped approximately 326,000 Iraqi security personnel by the end of 2006, including 138,000 Iraqi Army soldiers and 188,000 police officers.

[10] Federico Borsari, "Stability Policing: The Future of NATO Crisis Management," Center for European Policy Analysis, 1 March 2023.

Connection to NATO Stability Policing Concepts

NATO stability policing emphasizes the importance of building local capacity and fostering cooperation between military and civil authorities. The MNSTC-I's efforts align closely with these principles. The training and mentoring of Iraqi forces aimed to create a self-sustaining security apparatus capable of maintaining order without continuous foreign intervention.

This means that stability policing is not relegated to post-conflict situations but rather it can be conducted across the entire spectrum of conflict, allowing everything from reinforcement of local security forces to temporarily replacing them during high-risk operations.[11] The concept of community policing, a cornerstone of NATO stability policing, was reflected in our patrols and engagement with local leaders. We aimed to create a safer and more secure environment by building trust and fostering cooperation with the community. This approach is critical in any stability policing mission, as it helps to prevent insurgent influence, creates a better situational awareness, and helps establish the foundation for long-term peace.

Case Studies and Examples

The case of our operations in Rawah illustrates this. The regular patrols and engagement with local leaders exemplified the community policing model. By establishing a visible presence and building relationships with the community, we aimed to build trust, deter insurgent activities, and gather useful intelligence. Another example is the establishment of the network tip line with HPCPs. This initiative significantly improved our intelligence capabilities and facilitated better coordination with the U.S. forces. It highlights the importance of leveraging local knowledge and resources to enhance security efforts.

[11] Borsari, "Stability Policing: The Future of NATO Crisis Management."

More on MNSTC-I

MNSTC-I played a crucial role in Iraq's reconstruction and stabilization efforts. Its mission was to train, mentor, and equip ISF, including the army, police, and border security forces. This comprehensive approach aimed to create a self-sustaining security apparatus capable of maintaining order and stability.

One of the critical challenges faced by MNSTC-I was the allocation of resources. In the early stages of Operation Iraqi Freedom, military transition teams (MTTs) received more resources and attention compared to police transition teams (PTTs). This imbalance reflected the immediate need to combat insurgent forces and establish a secure environment. Establishing conditions for security forces to assume responsibility for the rule of law as quickly as tenable is a key tenet of stability policing. For stability policing to become an effective tool, the law enforcement agencies (LEAs) need to establish themselves as credible to the public eye. The moment respect and trust of the local population toward the LEA are found and proven, stability policing becomes a strong tool for upholding law, order, and stability.

Training and Mentoring Strategies

The training and mentoring strategies employed by MNSTC-I were multifaceted. Each MTT provided comprehensive training in intelligence, communications, fire support, logistics, operations, and infantry tactics. These teams worked closely with their Iraqi counterparts, conducting joint patrols and operations to ensure the practical application of the training.

One effective strategy was the use of train-the-trainer programs. This approach aimed to create a sustainable training model by empowering Iraqi officers to train their subordinates. By focusing on developing local training capabilities, MNSTC-I ensured that the Iraqi forces could continue to grow and improve even after the departure of Coalition forces.

Challenges and Successes in Building the ISF

Building the ISF was fraught with challenges. Significant obstacles were logistical constraints, cultural differences, and the continuous threat from insurgent forces. Additionally, corruption within the ranks and the presence of ghost rolls hindered progress. Despite these challenges, MNSTC-I achieved notable successes. By the end of 2006, as noted above, they had trained and equipped approximately 326,000 Iraqi security personnel. This included establishing functional army and police units capable of conducting independent operations. These achievements laid the groundwork for a more stable and secure Iraq.

Hybrid Warfare and Modern Challenges

Hybrid warfare is a complex and multifaceted type of conflict that combines conventional military tactics with irregular warfare, cyber operations, and information warfare. It aims to exploit the vulnerabilities of an opponent through a combination of military, political, economic, and informational means. Hybrid warfare is characterized by its fluidity and adaptability, often involving nonstate actors and unconventional methods.[12]

NATO's approach to hybrid threats involves a comprehensive and integrated strategy. This includes enhancing resilience, improving intelligence and situational awareness, and strengthening partnerships with other international organizations. NATO also focuses on building the capacity of member and partner nations to counter hybrid threats effectively.[13]

[12] Compare with Joshua Ball, "The Changing Face of Conflict: What Is Hybrid Warfare?," *Global Security Review*, 14 April 2023; Georgios Giannopoulos, Hanna Smith, and Marianthi Theocharidou, eds., *The Landscape of Hybrid Threats: A Conceptual Model Public Version* (Luxembourg: European Center of Excellence for Countering Hybrid Threats, 2021), https://dx.doi.org/10.2760/44985; and Frank G. Hoffman, *Conflict in the 21st Century: The Rise of Hybrid Wars* (Arlington, VA: Potomac Institute for Policy Studies, 2007).
[13] "Countering Hybrid Threats," What We Do, NATO, accessed 8 June 2024.

One of the key components of NATO's strategy is the concept of "comprehensive security."[14] This approach emphasizes the interconnectedness of military, political, economic, and societal security dimensions. By addressing these dimensions holistically, NATO aims to create a more resilient and secure environment.

Comparison with Experiences in Iraq

The experiences in Iraq provide valuable insights into the challenges and strategies for future wars associated with hybrid warfare. The insurgent tactics and the continuous threat of unconventional attacks in Iraq mirror many of the characteristics of hybrid warfare. The U.S. and Coalition forces' response involved a combination of conventional military operations, intelligence gathering, and community engagement.

NATO's emphasis on building local capacity and fostering cooperation between military and civil authorities aligns with the strategies employed in Iraq. The training and mentoring of ISF, combined with efforts to build trust with the local population, reflect the principles of comprehensive security.

Building Local Security Forces

Detailed Strategies for Training and Development

Building local security forces involves a multifaceted approach that combines training, mentoring, and capacity building. One effective strategy is using joint operations and patrols. This allows for practical training application and fosters a sense of partnership and cooperation. Just as the NATO stability policing concept states:

> All police tasks must be assumed by stability policing assets, such as enforcement of the law, area patrolling and control, forensic, border and sensitive structures control, criminal investigations and intelligence, and civil disturbance operations. NATO

[14] "A 'Comprehensive Approach' to Crises," What We Do, NATO, accessed 8 June 2024.

> stability policing assets must be entitled with executive police powers, encompassing the use of force, as well as the power of search and arrest.[15]

Importance of Cultural Understanding and Local Cooperation

Cultural understanding and local cooperation are essential components of building local security forces. Understanding the local population's cultural nuances and social dynamics is crucial for effective training and engagement. This involves building relationships with local leaders and officials, engaging with the community, and fostering trust and cooperation.

As already pointed out, our efforts in Iraq were to build rapport with the local population and Iraqi forces were critical to the mission's success. Regular interactions with local leaders and officials helped us understand the community's needs and concerns. This engagement was essential for effective community policing, a key aspect of NATO stability policing.

The long-term impacts and sustainability of training and development efforts depend on several factors. These include the quality of training, the level of local ownership and responsibility, and the ability to adapt to changing circumstances. Ensuring the sustainability of these efforts requires a continuous commitment to capacity building and local cooperation. The establishment of functional and independent ISF in Iraq was a significant achievement. These forces, trained and mentored by MNSTC-I, could conduct independent operations and maintain security. However, corruption and other challenges highlighted the need for ongoing support and capacity building.

Integration with Civil Governance

Importance of Transitioning to Civil Governance

The ultimate goal of any military intervention is to transition to civil governance and the rule of law. No society can exist indefinite-

[15] *Allied Joint Doctrine for Stability Policing*, 2-6–2-7.

ly under martial law. The transition to civil governance involves establishing functional and accountable institutions, ensuring the rule of law, and building the capacity of civil authorities. It was one of the core elements of the famous Brahimi Report from 2000.[16] Lakhdar Brahimi, a former Algerian foreign minister, chairman of the Panel on United Nations Peace Operations, recommended a doctrinal shift in the use of civilian police, other rule of law elements, and human rights experts in complex peace operation in order to reflect an increased focus on strengthening rule of law institutions and improving respect for human rights in post-conflict environments.[17] The Brahimi report revealed the concept of the *security gap*. It expressed the requirement for a new peacekeeping structure. "The necessity to move forward from the 'single police officer' monitoring missions, to active roles in reforming, training and restructuring of indigenous police forces was highlighted. The need for competencies in managing civil disturbance operations along with the requirement to provide police assets possessing self protection capacity became more evident."[18]

In Iraq, the transition to civil governance was critical to the overall strategy. Establishing a functional and independent ISF was an essential first step. However, the long-term stability and security of the country depended on the successful integration of these forces with civil governance structures.

NATO's Strategies for Integration

NATO's strategies for integration involve a comprehensive approach that includes building the capacity of local institutions, fostering cooperation between military and civil authorities, and ensuring the rule of law. This approach emphasizes the im-

[16] UN General Assembly, Resolution 54/81 B, Comprehensive Review of the Whole Question of Peacekeeping Operations in All Their Aspects, A/RES/54/81 B (21 August 2000).
[17] Brian E. Zittel, "The Brahimi Report: At a Glance," *Journal of International Affairs* 55, no. 2 (Spring 2002): 501–3.
[18] *Allied Joint Doctrine for Stability Policing*, 2-4.

portance of a holistic and interconnected strategy for security and stability.

One key aspect of NATO's strategy is building resilient and accountable institutions. This involves supporting legal and institutional reforms, providing technical assistance, and ensuring adherence to the rule of law. By building the capacity of local institutions, NATO aims to create a more stable and secure environment.

Case Studies from Iraq and Other NATO Missions

The efforts to build and integrate ISF with civil governance structures in Iraq provide valuable lessons for future NATO missions. The establishment of functional and independent Iraqi forces was a significant achievement. However, the presence of corruption and other challenges highlighted the need for ongoing support and capacity building.

Another example is the NATO mission in Afghanistan, where similar strategies were employed to build and integrate Afghan security forces. The focus on training and mentoring, provided by the U.S. Marine Corps in various areas of operations, combined with efforts to develop the capacity of local institutions, reflects the principles of NATO stability policing.

Police Transition Teams

Expanded Discussion on the Role and Challenges of PTTs

Police Transition Teams (PTTs) played a crucial role in the overall strategy for rebuilding Iraqi Security Forces. Their mission was to train, mentor, and equip Iraqi police forces, ensuring they could maintain law and order independently. However, PTTs faced significant challenges, including logistical constraints, cultural differences, and the continuous threat from insurgent forces.

One critical challenge faced by PTTs was the allocation of resources. In the early stages of Operation Iraqi Freedom, PTTs were underresourced compared to MTTs. This imbalance reflected the

immediate need to combat insurgent forces and establish a secure environment.

Comparison with Military Transition Teams

The roles and challenges of PTTs and MTTs were similar in many ways. Both were tasked with training, mentoring, and equipping Iraqi Security Forces. However, there were crucial differences in their focus and approach. MTTs primarily focused on building military capabilities, while PTTs aimed to establish functional and independent police forces. The success of both teams depended on their ability to build trust and cooperation with their Iraqi counterparts and the local population.

Lessons Learned and Best Practices

The experiences of PTTs in Iraq provide valuable lessons for future NATO stability policing missions, as well as overall future deployment where the U.S. Marine Corps will take a lead, as well as support its NATO allies and like-minded partners. One key lesson is the importance of resource allocation. Ensuring that PTTs have adequate resources and support is critical for their success. This includes providing technical assistance, logistical support, and leadership training.

Another important lesson is the need for cultural understanding and local cooperation. Building trust and fostering collaboration with the local population and security forces is essential for effective training and engagement. This involves understanding the local population's cultural nuances and social dynamics and engaging with local leaders and officials.

Reflecting on my experiences in Iraq, I am struck by the resilience and dedication of both the U.S. and Iraqi forces. Despite the numerous challenges and dangers, we remained committed to our mission and each other. The relationships we built and the trust we fostered were fundamental to our success.

Conclusions and Recommendations

The experiences in Iraq provide valuable insights into the challenges and strategies associated with rebuilding security forces and transitioning to civil governance. Future roles of the U.S. Marine Corps in the twenty-first century conflicts certainly contain elements of stability policing. This alliance tool is not well known and thus not deployed but has proved to be indeed beneficial during the conflict, before and after. At least, according to Lieutenant Colonel Kjobech based on his personal and professional experience, establishing the MNSTC-I and deploying MTTs and PTTs were crucial to stabilizing the region for a period. These efforts align closely with NATO's approach to stability policing, emphasizing the importance of building local capacity, fostering cooperation between military and civil authorities, and ensuring the rule of law.

Recommendations for Future NATO Stability Policing Missions

Based on the experiences in Iraq, several recommendations can be made for future NATO stability policing missions:

1. Understand the conflict: Spending requisite energy to understand the cultural history and fabric and not rush headlong into actions will ensure the overall strategy and stability policing strategy, specifically, is tailored and resourced to ensure success.
2. Ensure adequate resource allocation: Ensuring MTTs and PTTs have adequate resources and support is critical for their success. This includes providing technical assistance, logistical support, and leadership training.
3. Focus on cultural understanding and local cooperation: Building trust and fostering cooperation with the local population and security forces is essential for effective training and engagement. This involves understanding the local population's cultural nuances and social dynamics and engaging with local leaders and officials.

4. Emphasize capacity building and sustainability: Ensuring the sustainability of training and development efforts requires a continuous commitment to capacity building and local cooperation. This includes using train-the-trainer programs and empowering local officers to train their subordinates.
5. Integrate military and civil governance efforts: The ultimate goal of any military intervention is to transition to civil governance and the rule of law. This involves building the capacity of local institutions, fostering cooperation between military and civil authorities, and ensuring adherence to the rule of law.
6. Leverage local knowledge and resources: Leveraging local knowledge and resources, such as network tip lines, can significantly enhance intelligence capabilities and security efforts.

The NATO stability policing concept provides a valuable framework for understanding and addressing the complexities of post-conflict reconstruction and peacekeeping missions. By emphasizing the importance of building local capacity, fostering cooperation between military and civil authorities, and ensuring the rule of law, these concepts offer a comprehensive and integrated approach to security and stability.

In conclusion, the experiences and lessons learned from Operation Iraqi Freedom and other NATO missions highlight the critical importance of stability policing in maintaining peace and security. As we face new and evolving threats, the principles of NATO stability policing will remain essential in building and maintaining a safer and more secure world. Although the U.S. Marine Corps is well experienced in this, stability policing is still not well understood or promoted enough in the North American part of the alliance. For European counterparts, gendarmerie-type forces are embedded in many national law enforcement services.

Also, the experience of the war in the Balkans in the 1990s, as well as ongoing tensions in the Western Balkans, proved how crucial is this unique military capacity with police skillset. Future roles of the U.S. Marine Corps will involve both deterrence and transition with partnered nations, which both will inevitably require helping, training, and mentoring local populations and their weakened services. Marines equipped with stability policing skills and mindsets will undeniably strengthen the host nation executive power and contribute to a final victory including not only military success but also long-term peace and stability.

Chapter
10

The U.S. Marine Corps and Irregular Warfare in the Twenty-first Century

By Colonel Preston McLaughlin, USMC (Ret)

Introduction

What is irregular warfare (IW) and why is it important to understand it during a period of great power competition? This chapter discusses the U.S. Marine Corps' IW efforts in the early twenty-first century and efforts by the Department of Defense (DOD) in improving IW capability to counter its adversaries. The Marine Corps as a Service should understand its past IW practices and current initiatives within DOD, to better understand IW's relationship to emerging concepts such as expeditionary advanced base operations (EABO), distributed maritime operations (DMO) and Joint multidomain operations (MDO). These key emerging concepts should identify IW as a critical enabling capability, most specifically in the form of security cooperation with partners and allies. Without a common way forward with security cooperation practices, the danger lies within a loss of access and partnership that are critical for future operations. The intersection of EABO, DMO, and IW concepts lies in security assistance and security cooperation to create a network of allies and partners that enables these operating concepts. The current

definition of *irregular warfare* and its mission areas are described by the *Summary of the Irregular Warfare Annex to the National Defense Strategy* 2020 and a 2024 defense primer on IW created by the Congressional Research Service.[1] *Joint Warfighting*, Joint Publication (JP) 1, defines *irregular warfare* as "a form of warfare where states and nonstate actors campaign to assure or coerce states or other groups through indirect, non-attributable, or asymmetric activities."[2] Additionally, the *Summary of the Irregular Warfare Annex to the National Defense Strategy 2020* expands the definition as follows:

> Irregular warfare is a struggle among state and non-state actors to influence populations and affect legitimacy. IW favors indirect and asymmetric approaches, though it may employ the full range of military and other capabilities, in order to erode an adversary's power, influence, and will. It includes the specific missions of unconventional warfare (UW), stabilization, foreign internal defense (FID), counterterrorism (CT), and counterinsurgency (COIN). Related activities such as military information support operations, cyberspace operations, countering threat networks, counter-threat finance, civil-military operations, and security cooperation also shape the information environment and other population-focused arenas of competition and conflict.[3]

In DOD *Directive 3000.07* and in other DOD doctrine, IW is characterized as:

[1] Catherine A. Theohary, *Defense Primer: What Is Irregular Warfare* (Washington, DC: Congressional Research Service, 2024); and *Summary of the Irregular Warfare Annex to the National Defense Strategy 2020* (Washington, DC: Department of Defense, 2020).
[2] *Joint Warfighting*, Joint Publication (JP) 1 (Washington, DC: Joint Chiefs of Staff, 2023), GL-3.
[3] *Summary of the Irregular Warfare Annex to the National Defense Strategy 2020*, 2.

> A violent struggle among state and non-state actors for legitimacy and influence over the relevant population(s). These actors may use nontraditional methods such as guerrilla warfare, terrorism, sabotage, subversion, criminal activities, and insurgency in their efforts to control the target population. In IW, a less powerful adversary seeks to disrupt or negate the military capabilities and advantages of a more powerful military force, which usually serves that nation's established government. Because of its emphasis on influencing populations, actions to control the IE, to include actions in cyberspace, play a prominent role in IW. . . . IW includes, among other activities, the specific missions of unconventional warfare (UW), stabilization, foreign internal defense (FID), counterterrorism (CT), and counterinsurgency (COIN).[4]

The current definition of IW shows that it is not exclusively in the realm of special operations forces, and it may include Joint and interagency partners and conventional forces. History of IW from the twentieth and twenty-first century should emphasize the necessity in working with allies and partners in the form of security cooperation. Many of the future emerging concepts like EABO, DMO, and MDO require access basing and over flight (ABO) and shared targeting and sensing with allies and partners for them to be successful.

Background

The Marine Corps has been involved in IW in the nineteenth, twentieth, and twenty-first centuries. Throughout its history, the

[4] Theohary, *Defense Primer*, 1.

Corps has adapted to meet operational requirements, from regular war and conventional operations to irregular warfare in austere environments and unconventional operations and tactics, leading to the creation of Service-derived doctrine on IW. This chapter discusses history and current trends in the twenty-first century in IW that relate to *Force Design* and the Marine Corps' role in EABO as a Joint enabler, and how IW can play key supporting roles in Joint operations. Potential adversaries use methods "below the level of armed conflict" that cannot be solved through military power alone. During the nineteenth and twentieth centuries, the Marines were often called "State Department troops" because they would go ashore from the Fleet, conduct operations, and be recalled to the Fleet to conduct operations elsewhere.[5] This created a perception that expeditionary operations were of a limited nature and differed from the occupation duties the U.S. Army would conduct. During the nineteenth and early twentieth centuries, the Marines conducted small wars in places like Veracruz, Mexico; Nicaragua; the Dominican Republic; and Haiti. The *Small Wars Manual* was created in 1940, institutionalizing the lessons learned as a constabulary force in these locations. It also covered local governance such as the administration of civil duties and contributed to pacification and stabilization of these countries. This manual set a precedent as being the first of its type among the U.S. military and formed the Corps' early role in operations that would more closely form what constitutes irregular warfare. Paragraph 1-1 states:

> The term "Small War" is often a vague name for any one of a great variety of military operations. As applied to the United States, small wars are operations undertaken under executive authority, wherein military force is combined with diplomatic pressure in the internal or external affairs of another state

[5] State Department troops are described in W. D. Bushnell, "American Military Intervention: A Useful Tool or a Curse?" (paper, Marine Corps Command and Staff College, Quantico, VA, 1984).

> whose government is unstable, inadequate, or unsatisfactory for the preservation of life and of such interests as are determined by the foreign policy of our Nation. As herein used the term is understood in its most comprehensive sense, and all the successive steps taken in the development of a small war and the varying degrees of force applied under various situations are presented.[6]

Below is just a quick snapshot of campaigns Marines conducted in these areas:

- 1805: attacked Derna Tripoli
- 1817–50: Seminole Wars
- 1912–33: Nicaragua
- 1914: Vera Cruz Mexico
- 1915–34: Haiti
- 1916–24: Dominican Republic
- 1940: published *Small Wars Manual*
- 1965–66: Dominican Republic
- 1965–71: Combined Action Platoon with Popular Forces, Republic of Vietnam
- 1983: Grenada
- 1988–89: Panama
- 1994, 2010: Haiti
- 2007–21: counterinsurgency, counterterrorism, security assistance, and foreign internal defense, Iraq and Afghanistan

During the Vietnam War, Lieutenant General Victor H. Krulak, commanding general, Fleet Marine Forces Pacific (FMFPAC),

[6] *Small Wars Manual*, Fleet Marine Force Reference Publication (FMFRP) 12-15, 1940 ed. (Washington, DC: Headquarters Marine Corps, 1990), 1.

and Lieutenant General Lewis W. Walt, commanding general, III Marine Amphibious Force (III MAF), took some of the lessons in counterinsurgency and civil affairs from their operations in the I Corps Tactical Zones that III MAF learned in its early operations in coastal enclaves like Phu Bai and Da Nang. This created an IW capability called the Combined Action Program (CAP), whereby Marine squads were embedded in key villages to implement local security operations with South Vietnamese Popular Forces platoons and conduct civil affairs activities to strengthen counterinsurgency, clear, hold, and build operations. As authors William F. Nimmo and Henry Beaudin detailed in an article for *Marine Corps History* journal:

> Throughout the life of the [CAP], as it eventually came to be known, Marines were used to train, motivate, and assist [South Vietnamese] Popular Force platoons to hold their villages once cleared of enemy forces. As a force multiplier, the program involved embedding, or brigading, a squad of Marines and a U.S. Navy corpsman into a Popular Force platoon in the villages where each was located.[7]

Unfortunately, Commanding General William C. Westmoreland of the U.S. Military Assistance Command, Vietnam (USMACV), had a strategy of large-scale unit search and destroy operations that put the U.S. Army at odds with III MAF and FMFPAC's counterinsurgency strategy using the CAP. Bing West, an author and former assistant secretary of defense for international security affairs for the Ronald W. Reagan administration, served in a CAP in Vietnam and wrote a book on his experiences titled *The Village*. West continued his career as a journalist in Iraq and Afghanistan, writing

[7] William F. Nimmo and Henry Beaudin, "The Creation of the Marine Corps' Combined Action Platoons: A Study in Marine Corps Ingenuity," *Marine Corps History* 4, no. 2 (Winter 2018): 42–65.

several critically acclaimed books and remaining outspoken on the model that CAP provided in successful counterinsurgency strategy. After Vietnam, the U.S. military at large returned to conventional operations during the Cold War and Operations Desert Shield and Desert Storm and lost focus on counterinsurgency outside of SOF forces.

Failures in the attempted rescue during the Iran hostage crisis (Desert One) in 1980, the Grenada invasion's chain of command, and the investigation of the Beirut Marine Barracks bombing in 1983 prompted a more focused look at terrorism as an asymmetric threat against the United States. These failures led to the Goldwater-Nichols Department of Defense Reorganization Act of 1986 to create better Joint organization and command and control, including strengthening regional combatant commanders, U.S. Special Operations Command (SOCOM), and the Joint Special Operations Command.[8] The Corps created the Marine Expeditionary Unit (Special Operations Capable) (MEU-SOC) and Fleet Antiterrorism Security Team (FAST) units to adapt and counter new asymmetric threats such as proxy forces, nonstate actors, terrorists, and increased capabilities of adversarial special operations forces (SOF). Since the Goldwater-Nichols Act, new proxy force militias have sprung up in Iraq, Israel, Lebanon, Syria, and Yemen and have posed a great asymmetric threat to counter the United States and its allies and partners. Islamic extremism born of the Sunni Salafist school became more widespread since the 1979 Grand Mosque attack, foreign fighters in the Soviet Afghan war, and ultimately al-Qaeda slowly coming onto the scene through the 1990s and early 2000s.[9]

After the attack on the New York World Trade Centers in 2001, the Marine Corps again had to adapt to fight the emerging threat

[8] Kathleen J. McInnis, *Defense Primer: Commanding U.S. Military Operations* (Washington, DC: Congressional Research Service, 12 January 2024).
[9] Steve Coll, "Ghost Wars: The Secret History of the CIA, Afghanistan, and Bin Laden, from the Soviet Invasion to September 10, 2001," accessed 28 December 2004, video, Wilson Center.

that Middle Eastern terrorism posed. An early example of this adaptation was Task Force 58, led by then-brigadier general James N. Mattis, which saw the composite of two MEU(SOC)s to enter al-Qaeda's refuge in Afghanistan, a land-locked country, from the sea. Additionally, during Operation Iraqi Freedom in 2003, the I Marine Expeditionary Force confronted an IW threat called the Fedayeen Saddam in places like an-Nasiriyah and Baghdad. After the collapse of Saddam Hussein's regime and capture of its leader, U.S. forces began to see a Sunni-backed insurgency grow, especially in the Sunni Triangle (Baghdad, Tikrit, and al-Ramadi) supported by the external and now internal backing of al-Qaeda in Iraq. The Coalition Provisional Authority (CPA) led by Ambassador L. Paul Bremer disbanded Baath Party members and banned them from serving in the follow-on government and military the CPA was building. In 2005, the U.S. government finally accepted there was a large Sunni-backed insurgency but also Shia militias fueling conflict inside Iraq. In 2006, the Marine Corps Special Operations Forces Command (MARSOC) was formed to address the Service's contribution to the SOF mission in Iraq and Afghanistan, operationally under the control and deployment orders of U.S. Special Operations Command (USSOCOM). MARSOC's mission is

> to recruit, train, sustain, and deploy scalable, expeditionary forces worldwide to accomplish special operations missions assigned by U.S. Special Operations Command. To accomplish that, MARSOC equips and trains Marines to succeed in austere conditions against a wide range of adversaries in competition through conflict. Marine Raiders execute complex, distributed operations globally in uncertain environments, achieving silent success and strategic impact.[10]

[10] Cpl Henry Rodriguez II, "Assistant Secretary of Defense for Special Operations and Low-intensity Conflict Visits MARSOC," Marine Corps Forces Special Operations Command, 26 January 2024.

Also in 2005, Lieutenant General Mattis and General David H. Petraeus collaborated to create the new *Counterinsurgency*, U.S. Army Field Manual (FM) 3-24/Marine Corps Warfighting Publication (MCWP) 3-33.5. The manual was released in 2006. It had been 20 years for the Army and 25 for the Marine Corps since they had issued new doctrine in this area, with the last publication dating back to the Vietnam War. What was unique about this new collaborative manual was that it detailed not only tactics, techniques, and procedures but also historical vignettes and best practices that were then adopted by Coalition forces on the ground, paving the way for the "surge" that had a holistic approach to counterinsurgency, counterterrorism, security assistance, and foreign internal defense. Multi-National Force–Iraq and Multi-National Corps–Iraq created a counterinsurgency academy for leaders in Baghdad and later duplicated this in Kabul, Afghanistan. This had a successful transition in Iraq after the al-Anbar Awakening and led to similar practices in Afghanistan with limited successes. After the DOD's 2007 publication of *Irregular Warfare (IW) Joint Operating (JO) Concept*, the U.S. Marine Corps established an Irregular Warfare Center to support policy development and training and education of Marine forces in the Global War on Terrorism, and to rewrite and update a twenty-first century *Small Wars Manual*. A grassroots effort was created in the development of the *Small Wars Journal* during this period to keep pace with blogs and other news periodicals to support debate in IW issues.[11]

Mission

The Center for Irregular Warfare (CIW) is the central Marine Corps agency for identifying, coordinating, and implementing IW capability development initiatives across all elements of doctrine, organization, training, materiel, leadership and education,

[11] "Marine Corps Center for Irregular Warfare," blog, *Small Wars Journal*, 24 November 2007; and *Irregular Warfare (IW) Joint Operating (JO) Concept* (Washington, DC: Department of Defense, 2007).

personnel, and facilities (DOTMLPF) to increase, improve, and enhance Marine Corps capabilities and capacities to conduct operations across the spectrum of war against irregular threats.[12]

The Corps' CIW improves IW and related capabilities across the entire operational spectrum with particular emphasis on the irregular operational challenges by researching best practices, supporting doctrinal development, providing subject matter expertise to leaders and organizations, and coordinating and supporting improvement and integration of IW tenets into training and education programs and curricula. CIW conducts outreach to other military and civilian entities with a shared interest in irregular warfare and nonkinetic effects operations.

In 2011, under General James F. Amos's *Commandant's Planning Guidance*, the Marine Corps consolidated its IW and security cooperation efforts, resulting in the combination of the CIW and Integration Division into the Capabilities Development Directorate, Deputy Commandant for Combat Development and Integration, as well as the establishment of the Marine Corps Security Cooperation Group (MCSCG), as established by *MARADMIN 454/11, Institutionalization, Consolidation, and Strengthening of Marine Corps Irregular Warfare (IW), and Security Cooperation (SC) Organization*.[13]

The United States had to intervene in Iraq again with the 2014 resurgence of ISIS and continued an advisory role in Afghanistan with the Train Advise Assist Command under NATO's Resolute Support Mission—a particular challenge after beginning large-scale Marine Air Ground Task Force troop reductions that year. In August 2021, the Joseph R. Biden administration drew down and evacuated the last U.S. forces and Afghan refugees, ceding to the Taliban government after a brokered peace agreement negotiated by the preceding Donald J. Trump administration. This was

[12] "Marine Corps Center for Irregular Warfare."
[13] *MARADMIN 454/11, Institutionalization, Consolidation, and Strengthening of Marine Corps Irregular Warfare (IW), and Security Cooperation (SC) Organization* (Washington, DC: Headquarters Marine Corps, 11 August 2011).

the end of 20 years of U.S. and NATO assistance since defeating the Taliban in 2001–early 2002, before its resurgence around 2006 under the Quetta Shura Taliban in southern Afghanistan and in league with al-Qaeda. In today's contemporary operating environment, there is concern in the Western world of al-Qaeda rebounding in Afghanistan under the Taliban, as well as the growth of Islamic State-Khorasan (ISIS-K), which conducted a large-scale attack in a concert hall in Moscow, Russia, in March 2024. From 2017 to 2019, the Marine Corps began a transition from counterinsurgency in its *Force Design* and operational concepts based on the *National Defense Strategy of 2017*. Under the Trump administration, General Mattis became the secretary of defense and led efforts to write the defense strategy. The greatest of its concerns were China and Russia as near peer competitors in a great power competition. Also identified as lesser threats and as potential regional competitors were Iran, North Korea, and violent extremist organizations such as al-Qaeda and ISIS. This new defense strategy looked at how China and Russia's conventional forces were modernizing and growing. Both also conducted hybrid or gray zone activities that used false flag operations or creeping incrementalism and fait accompli operations in Crimea and the South China Sea.

DOD recognizes these hybrid or gray zone activities as IW. Often these activities fall below the level of armed conflict to leverage an adversary's nonmilitary might against the United States and its partners and allies. Military forces alone may not be the best remedy, but a combined, Joint combination of interagency and allied partners. This could include other departments within the U.S. government and the intelligence community, as well as diverse organizations such as the State Department, the U.S. Coast Guard, the Department of Justice, and the Federal Bureau of Investigation, as IW threats may have an international threat component including a nexus with organized crime. In 2017, when the U.S. Congress began the vigorous campaign to create a functional Irregular Warfare Center, the Marine Corps Association and Ma-

rine Corps University Foundation held their last Keyser Irregular Warfare Service Symposium. Author Bing West was one of three panelists, and he gave a critique that he characterized as misguided strategy by the United States in Afghanistan, describing parallels with his Vietnam experience on choosing allies that did not represent the best in governance and other social issues that are the root of those insurgencies. He repeated this again in 2021 in a Fox News interview during the fall of Kabul.[14]

Marine Corps Times published an article in 2019 that describes the potential future of IW and perspectives on IW during Great Power Competition. In it, author Todd Smith reported from the Modern-Day Marine Military Expo that while the Marine Corps and other branches of the military are increasingly prioritizing preparations for conflicts with near-peer adversaries, some security analysts worry that this shift could lead to a neglect of other potential threats. During a panel discussion at the expo, experts acknowledged the evolving challenges posed by China and Russia, but cautioned against overemphasizing these threats at the expense of other dangers. Retired Marine colonel J. D. Williams, of Rand Corporation, argued that the perceived capabilities of these nations are sometimes overstated, noting that the United States maintains significant advantages in numerous areas. He criticized the current emphasis on funding programs solely based on their contribution to great power competition, suggesting that this approach overlooks other critical needs. Moreover, Nora Bensahel, of Johns Hopkins University, highlighted that even with advanced conventional weaponry, the military could still be vulnerable to unexpected, irregular forms of warfare.[15]

[14] Ethan Barton, "Biden's Speech was 'Disingenuous'; al Qaeda Will Return Former Reagan Official Says," Fox News, 17 August 2021.
[15] Todd South, "Irregular Warfare Remains the Threat, despite a Marine Corps Shift to the Near-peer Fight," *Marine Corps Times*, 19 September 2019.

To improve this current National Defense Strategy, there needs to be a better understanding of irregular warfare problems and potential solution sets and how they relate to great power competition. The late senator John McCain (R-AZ) and Representative William McClellan Thornberry (R-TX) urged DOD to begin a concerted effort to better apply U.S. forces in IW because of adversaries' willingness to do so and their successes in these areas. Their efforts and focus on this area are why the DOD has this opportunity now through the Irregular Warfare Center (IWC). IW is not just for SOF; its understanding benefits conventional forces and Joint, combined interagency to tackle tough, complex transregional threats by U.S. adversaries. The IWC was established in October 2022 and currently falls under the Defense Security Cooperation University of the Defense Security Cooperation Agency. The IWC reached initial operating capacity 31 October 2022 as it launches operationally in a virtual presence, where it will function until a physical location is finalized.

> The IWC serves as the central mechanism for developing the Department of Defense's (DOD) irregular warfare knowledge and advancing the Department's understanding of irregular warfare concepts and doctrine in collaboration with key allies and partners. The IWC lines of effort are to AMPLIFY and collaborate to build an innovative and adaptable global networked IW community of interest; To Strategically ILLUMINATE current and future irregular threats, crises, and obstacles; and to ADDRESS current and future irregular threats to the US, allies, and partners by providing optionality.[16]

[16] "About the IWC," Irregular Warfare Center, accessed 30 January 2025, emphasis original.

The IWC serves as the only global DOD center that works in close collaboration to amplify regional centers' IW efforts. The Irregular Warfare Global Network is strategically designed to tackle specific global irregular threats. To achieve this, it utilizes Functional Area Networks (FANs), which are developed in conjunction with the assistant secretary of Defense for special operations/low intensity conflict and international partners. The network adapts to emerging challenges by continuously adding new FANs as needs are identified. This flexible structure ensures that the FANs remain relevant and effective in addressing evolving irregular warfare issues. The FANs promote collaboration among DOD, other government agencies, the private sector, and global allies, fostering a unified response. These networks are designed to achieve diverse objectives, including: facilitating knowledge exchange, pooling resources for joint initiatives, increasing public awareness, and collaboratively solving complex problems. One example is the Contested Logistics FAN, which focuses on addressing logistical challenges in both contested and uncontested environments, across all domains, whether within the United States, abroad, or during transit.[17]

IW Global Network, Irregular Warfare Center

Force Design 2030 was introduced in 2019 by 38th Commandant General David Berger. The goal was to transform the force to survive in the U.S. Indo-Pacific Command theater of operations by adapting Marine forces in a naval and Joint campaign to enable the Joint reconnaissance-countererconnaissance fight. In an article for *Military Review*, General Berger offers a succinct synopsis of why he and his predecessor knew that warfare is changing in the twenty-first century and what is necessary for Marine forces to thrive and survive in a much more deadly environment now and in the future.[18]

[17] "IW Global Network," Irregular Warfare Center, accessed 30 September 2024.
[18] Gen David H. Berger, "Preparing for the Future Marine Corps Support to Joint Operations in Contested Littorals," *Military Review* (May–June 2021): 202–9.

> Based upon our evolving understanding of expeditionary advanced base operations, we initially envisioned supporting fleet commanders by providing lethal anti-ship fires from mobile ground units operating from dispersed, austere expeditionary advanced bases (EABs) and from STOVL [short take-off and vertical landing] fifth generation strike fighters likewise operating from or enabled by specialized EABs. What is now becoming clearer is a critical enabling role of the stand-in force—what the Navy and Joint force might need most from the Marine Corps. The answer to the question of how we may best support the broader effort, it seems increasingly likely, is not lethal fires as an end in themselves but rather *reconnaissance and counter reconnaissance* applied in all domains and across the competition continuum.[19]

According to *Force Design* priorities, the Marine Corps' future stand-in force's effectiveness will be critically assessed by its capacity to maintain a persistent forward presence within contested littoral environments. This necessitates the ability to rapidly transition across the competition continuum, from routine engagement to high-intensity conflict, thereby reinforcing deterrence and enabling decisive combat actions. This imperative is driven by the increasing prevalence of precision-strike missiles, advanced sensor networks, counterreconnaissance technologies, and unmanned systems, which collectively challenge traditional operational concepts within the modern battlespace.[20]

The Navy's strategy of distributed maritime operations (DMO) sees the employment of "small, dispersed land and sea detach-

[19] Berger, "Preparing for the Future Marine Corps Support to Joint Operations in Contested Littorals."
[20] "Distributed Maritime Operations (DMO)," Modernization Priorities, Force Design, U.S. Marine Corps (website), accessed 29 January 2025.

ments emplaced to threaten the ability of adversary forces to operate from within their anti-access/area denial umbrella. Forces conducting DMO deny freedom of movement along key sea and air lines of communication. Distributed forces change the adversary's cost calculus and buy time for flexible deterrent options and assembling a Joint task force."[21]

The Navy's approach to distribute itself and its supporting forces (EABs) can be best explained by the following reasons:

- Dispersal affords protection to better accomplish the mission against a distant or distributed adversary.
- Dispersal improves maneuver options in order to gain a positional advantage to assault or engage more effectively with direct or indirect fires.
- Dispersal reduces the effects of enemy fires.
- Dispersal imposes costs and induce uncertainty.
- Dispersal aids in reducing a unit's signature to avoid detection. In a precision strike regime, sensing first and shooting first are a tremendous advantage.[22]

Traditionally, the infantry company has been the lowest echelon capable of coordinating the full range of combined arms, but miniaturization of electronics and increased processing power enables us to push combined arms to the squad. Smaller combined-arms-capable units allow us to be more distributed.[23]

EABO and DMO are connected to IW functions because of relationships with allies and partners in a global network. As explained by Major David Pummell:

> Regional partners are influenced, allies are supported, and relationships developed and sustained well before any indication and warning of crisis or conflict. This takes years done properly; it would be

[21] "Distributed Maritime Operations (DMO)."
[22] "Distributed Maritime Operations (DMO)."
[23] "Distributed Maritime Operations (DMO)."

> preferred to have up to a decade to influence and shape a region to best support competition and reduce an adversary's desire to expand their agenda. The central idea of the Irregular Warfare Annex is to implement a core competency for both conventional and special operations forces, sustaining the ability to impose costs and create dilemmas for our adversaries.[24]

The Philippines is a great example of an allied nation that factors into supported IW functions as it relates to EABO. This country has one of the longest-standing mutual defense treaties with the United States. In addition to countering Chinese influence operations in Philippine sovereign territory, their military, law enforcement, and Coast Guard also counter internal and external violent extremist organizations such as the Abu Sayyaf, Moro Islamic Liberation Front, and the Communist New People's Army. Going back to 1946 and Philippine independence, a U.S. military assistance advisory group has conducted security cooperation and assistance under the leadership of the U.S. country team at its embassy. This led to a successful conclusion of Joint Task Force Operation Enduring Freedom-Philippines in the contested southern islands area of Jolo and Mindanao. Under the leadership of Philippine President Ferdinand Marcos, law enforcement with the Philippines Coast Guard is leading the influence contest with China by filming and reporting Chinese fishing fleet and Coast Guard violations of the 1982 UN Convention on the Law of the Sea (UNCLOS) treaty to protect its sovereign territory, exclusive economic zones, and territorial waters. For an example of how security cooperation with countries like the Philippines, one should examine a Marine Corps essay contest award-winning piece by Major Brian Kerg,

[24] Maj David Pummell, "Irregular Warfare Then and Now," *Marine Corps Gazette* 105, no. 1 (January 2021): 51.

"Cooperate for Sea Control: The Marine Corps Should Leverage its Security Cooperation Expertise to Gain and Maintain Persistent Access during Expeditionary Advanced Base Ops."[25]

The Irregular Warfare Center and Strategic Partnerships and Networks

After examining the relationship of security cooperation, security assistance and foreign internal defense with EABO and DMO, how does the IW community of interest sponsored by the IWC benefit the United States, its allies, and partners as the Navy-Marine Corps team benefit from its activities? As Army general Stanley McChrystal observed as commanding general of Joint Special Operations Command: "It became clear to me and to many others that to defeat a networked enemy we had to become a network ourselves."[26] The functional area networks (FANs) described earlier are underway. In its short lifespan, the IWC has made strides in areas such as medical resilience, influence operations, information environment, and contested logistics, which are areas of common concern in MDO, EABO, and DMO.

Hybrid and gray zone activities by our allies and adversaries are recognized as IW by the DOD. Even as far back as 2011, DOD recognized activities below the level of armed conflict by defining them as low intensity conflict, which is defined by *DOD Directive 5111.10 Assistant Secretary of Defense Special Operations and Low Intensity Conflict (ASD SOLIC)* as a

> political-military confrontation between contending states or groups below conventional war and above the routine, peaceful competition among states. It involves protracted struggles of competing principles and ideologies. LIC [low intensity con-

[25] Maj Brian Kerg, "Cooperate for Sea Control: The Marine Corps Should Leverage its Security Cooperation Expertise to Gain and Maintain Persistent Access during Expeditionary Advanced Base Ops," U.S. Naval Institute *Proceedings* 147, no. 12 (December 2021).
[26] Stanley McChrystal, "It Takes a Network," *Foreign Policy*, 21 February 2011.

> flict] ranges from subversion to the use of armed force. It is waged by a combination of means employing political, economic, informational, and military instruments. LIC conflicts are often localized, generally in the Third World, but contain regional and global security implications. LIC activities include, but are not limited to counterterrorism, foreign internal defense, counterinsurgency, support to insurgency, contingency operations, counter narcotics, and peacekeeping.[27]

Nuclear parity, the dynamics of modern revolutionary warfare, and economic interdependence have significantly reshaped the international arena over the past 70 decades. In this environment, LIC, as a form of limited war, poses complex challenges to U.S. global interests. Unfavorable outcomes of LIC may gradually isolate the United States, its allies, and its global trading partners from each other and from the world community. Unfavorable outcomes of LIC, hence IW by adversaries, may also cause

- The loss of U.S. access to strategic energy reserves and other natural resources.
- The loss of U.S. military basing, transit, and access rights.
- The movement of U.S. friends and allies to positions of accommodation with hostile groups.
- The gain of long-term advantages for U.S. adversaries.

Conversely, successful IW operations, consistent with U.S. interests and laws, can advance U.S. international goals such as the growth of freedom, democratic institutions, and free market

[27] Enclosure 2, *DOD Directive 5111.10, Assistant Secretary of Defense Special Operations and Low Intensity Conflict (ASD(SO/LIC)* 22 March 1995, incorporating change 2 (Washington, DC: Department of Defense, 21 October 2011), 11.

economies. U.S. policy recognizes that indirect, rather than direct, applications of U.S. military power are the most appropriate and cost-effective ways to achieve national goals in an IW environment. The principal U.S. military instrument in IW is security assistance in the form of training, equipment, services, and combat support. In modern lexicon, this is also known as "building partner capability and capacity." When IW threatens friends and allies, the aim of security assistance is to ensure that their military institutions can provide security for their citizens and government. Military force alone may not be the dominant considerations in IW. The restraint of force and using civic action and psychological or information warfare may be more advantageous for garnering public support. Strategy in an IW environment must be developed in a holistic manner, integrating the diplomatic, informational, military, and economic elements of power in a whole of government approach.[28]

The IWC, and its strategic partnerships and networks provide a holistic approach to deal with these complex problems especially transnational and transregional threats posed by Russia and China, as well as Iran.

Conclusions and Recommendations

IW is an extremely valuable strategic shaping component in great power competition. Yet, IW has consequences. Not acknowledging this can lead to vulnerabilities that adversaries can exploit. This was evident in October 2023 in the Hamas/Israel conflict. Israel ignored indications and warnings that could have led to a greater level of readiness to defend and repel an attack. The detailed planning and execution of the initial attack by Hamas revealed a lapse of critical concern that Israeli leaders had assumed away. The following conflict led other Iranian proxy forces such as the Houthis

[28] Adapted from Professor McLaughlin's syllabus for National Security Course 732, Low Intensity Conflict/Irregular Warfare, 2017 and 2020, Daniel Morgan Graduate School of National Security, author's personal files.

to engage Western interests backed by Israel or the United States to an onslaught of drones, cruise missiles, and land based ballistic missile attacks not only in the Red Sea but also extended to Iran in April 2024, when an Iranian-backed attack on Israel led Israel to launch a retaliatory strike on Iranian territory.

Other areas of consequence include internal violence by gangs and other interest groups in Haiti, and now rumblings of a dispute between Venezuela and Guyana over the oil-rich Essequibo province. These conflicts are below the level of all-out conventional war but are also in addition to Russian advances in their conflict with Ukraine and China's current disputes in the South China Sea, most notably the Philippines. So how does the Marine Corps proceed in this world of IW? MARSOC is receiving transformation guidance from U.S. Special Operations Command, but as Marines, they understand EABO and DMO and are advocates of these concepts as well as of IW.

In 2021, the Marine Corps Security Cooperation Group was deactivated per General Berger's *Commandant's Planning Guidance*. This was after a long period supporting security cooperation in several countries. The Marine advisor mission was formalized with a course and manpower guidance. This eventually led to the activation of the Marine Corps Security Cooperation Training Detachment in Joint Expeditionary Base, Virginia Beach, Virginia. The Marine Corps Reserve now possesses two Marine Corps Advisor Companies, one on each coast, to support Marine forces and Joint security cooperation objectives.

A relatively new organization, the Security Cooperation Training Detachment (SCTD), plays a central role in the Marine Corps' efforts to enhance the capabilities of partner nation security forces (PNSF). SCTD coordinates, manages, executes, and assesses Marine Corps security cooperation programs and activities, encompassing assessments, planning, education, training, and advisory services. By ensuring a cohesive approach, SCTD facilitates the support of combatant commanders' security cooperation objec-

tives by the Marine Corps and its regional Marine Forces components. SCTD is organized as a subordinate unit of the Marine Corps Intelligence Schools and is directed by Training and Education Command.

This led to the establishment of Marine Corps Advisor Companies (MCAC) A and B, Force Headquarters Group, Marine Forces Reserve. As commander of MCAC A Colonel David V. Ready's article for *Marine Corps Gazette* detailed: "The proposed mission statement for [MCAC] A captures the unique capabilities and advantages of the MCAC and its Marine Security Cooperation Teams (MSCTs): The MCAC conducts security force assistance across the spectrum of conflict to enable partner capability in support of Service and joint force requirements. . . . Its core capabilities are to provide rotational forces and conduct security force assistance (SFA) as well as to advise, train, assist, and assess partner-nation forces."[29] The Marine Corps also has a robust civil affairs element in the Reserve that complements the Marine Advisor effort in security cooperation.

As the Marine Corps moves forward in adapting to the current and emerging operational environment, the IWC common areas of interest are medical resilience, influence operations, information environment, and contested logistics, which are areas of common concern in MDO, EABO, and DMO. The Marine Corps must embrace this resource with the IWC to create holistic strategies to deal with an evolving threat environment. We must also build on the institutional knowledge of past IW and security force assistance the Marine Corps has developed in the twentieth and twenty-first centuries as Marine advisors working with partners and allies to gain and maintain access in areas critical to EABO, especially for the stand-in force. EABO and DMO are connected to IW functions because of relationships with allies and partners

[29] Col David V. Ready, "Marine Corps Advisor Companies: Introduction and Historical Context," *Marine Corps Gazette* 103, no. 9 (September 2019): 17, emphasis original.

in a global network. As an institution, the Marine Corps is a learning organization. Partnering with the IWC will allow us to pool institutional knowledge and resources. It assists in looking beyond the current event horizon of 2025 and beyond 2030.

Chapter
II

Cyberspace as a Critical Component of Future Marine Corps Missions

Why the U.S. Marines Can Be Used as a Role Model for Other NATO Allies and Like-minded Partners in This Domain

By Joanna Siekiera, PhD, and
Colonel Arun Shankar, USMC, PhD

Introduction

Cyberspace is a critical component of future missions. It will also be a crucial component for the Marine Corps, whose unique character might serve as a role model for other North Atlantic Treaty Organization (NATO) allies and like-minded partners in this domain. This chapter highlights the last of five war-fighting domains—cyber—and presents its unitality as a win-or-lose asset in future warfare, regardless of whether that would be a conventional war, irregular conflict, or only a cyber battle. Despite constantly developed armed-conflict tools and methods, the Latin phrase *Si vis pacem, para bellum* (if you want peace, prepare for war) is always vital. During the fourth industrial revolution, embedded in rapid technological advancement in the twenty-first century, adversaries of Western, rules-based order are moving with the same speed. They no longer invest only in traditional armors but indeed are creating "future soldiers" with unmanned aerial vehicles (UAV), commonly known as drones, artificial intelligence (AI) systems, and a whole variety of nonkinetic capabilities (sometimes called nonkinetic energy [NKE] weapons), including directed-energy

weapons, such as laser and millimeter-wave weapons, biochemical incapacitants and irritants, and electrical weapons, such as acoustic weapons).

The values that the West stands for are expressed in the international law system of written agreements and customary principles that Western nations all obey with goodwill—in the hope that everyone will come to an international, global, or regional arrangement with a promise of the observance of the agreed norms. Yet, the history of humankind has proven many times that states and other nonstate actors possess various interests, assets, and resources and that their understanding of the law is also different due to their own history of statehood and wars, geophysical obstacles, economic growth, societal arrangements, and beyond. Here, legal culture is a neglected factor in armed conflict analysis. We can only prevent an attack, counter war, and defend ourselves by understanding the enemy (not even mentioning partners and allies) and their valid rationale. "Winning hearts and souls" takes generations, not a single operation. At the same time, the war criminals, terrorists, and perpetrators threatening Western democracies do not hesitate to use our values against us—because they know how important our values of human rights, the rule of law, and freedom are.[1]

Cyberspace as a Multidomain Operations Component

Cyberspace is the integral yet often omitted element of multidomain operations (MDO). Additionally, understandings of the concept of MDO differs among NATO's 32 member states, whose legal cultures (and national interests) vary. Single terms are assigned to bipolar connotation, which all derives from a different historical background (such as the noun *collaboration*, which has a strongly negative meaning in Central Eastern Europe and Norway, while it is ideologically free for other NATO members) and work

[1] For more about legal culture, see Joanna Siekiera, "Legal Culture in Protection of Civilians," *Center of Excellence for Stability Police Units*, no. 3 (2022/23), https://doi.org/10.32048/Coespumagazine3.22.2.

ethic/military culture (data exchange is vital in intelligence, but very often is limited due to national security proceedings).

So far, there is no standard definition of a *cyber threat* in the international arena. Even NATO did not come up with a joint definition: "Allies are promoting a free, open, peaceful and secure cyberspace, and pursuing efforts to enhance stability and reduce the risk of conflict by supporting international law and voluntary norms of responsible state behavior in cyberspace."[2] Note the term *voluntary norms*. The most important principle of international law is the principle of the sovereignty of states. As primal entities in international relations, states possess the full scope of legal personality. They are equipped with unlimited rights and duties, according to the Westphalian system that still prevails.[3] Only sovereign states can create laws and policies on their territory and relations they wish to establish and maintain with other international entities by creating international intergovernmental organizations (IGO). IGOs are secondary entities of international law and thus cannot impose anything on states (their creators).[4]

NATO engages with several partner countries and other international organizations, such as the European Union, to enhance shared security, including cybersecurity. Cyber threats defy state borders and organizational boundaries and have far-reaching consequences beyond geographic boundaries. Paradoxically, codifying cyber threats would work against us and likely ease criminal activities. According to the *NATO 2022 Strategic Concept*, the most severe and urgent threats to NATO are Russia, China, and terrorism:

- The Russian Federation is the most significant and direct threat to Allies' security and peace and stability in the Euro-Atlantic area.

[2] "Cyber Defence," What We Do, North Atlantic Treaty Organization (NATO), accessed 30 March 2024.
[3] The modern Westphalian state-centric system was established by the 1648 Peace Treaty(ies) of Westphalia. It was not a single event in the development of modern international law, but the beginning of a long evolution.
[4] Unless it is agreed by those states to do so.

- Terrorism, in all its forms and manifestations, is the most direct asymmetric threat to the security of our citizens and international peace and prosperity.
- The People's Republic of China's stated ambitions and coercive policies challenge our interests, security and values. . . . The deepening strategic partnership between the People's Republic of China and the Russian Federation and their mutually reinforcing attempts to undercut the rules-based international order contradicts our values and interests.[5]

For the perpetrators—potential and already existing ones—who are breaching international law and order and thus peaceful coexistence of states in the cyber domain, the agreed definition of cyberthreat/cyberattack/cyber conflict would ease their criminal activities. From the legal vantage point, the term *threshold* means that criminals would misuse the law by not fulfilling the whole definition of the crime (acting below the definition) and thus not being responsible for that crime. Threshold cyberattacks are hard to define, but most importantly, they are hard to prevent and counter. We do not have any hard law at the international level or customary law, and NATO has not passed a parliamentary bill or other form of national regulation on cybersecurity. This domain is too new to observe any international practice. Yet, the best practice in case of such legal loopholes is that we must take advantage of the lack of codification and use any other existing legal, political, and military tools.

MDO contains five operational domains: maritime, air, land, space, and cyberspace. The NATO working definition of MDO is "the orchestration of military activities, across all domains and environments, synchronized with non-military activities, to enable

[5] *NATO 2022 Strategic Concept* (Brussels, Belgium: NATO, 2023).

the Alliance to deliver converging effects at the speed of relevance."[6] The four overarching principles will be deemed foundational to the successful delivery of MDO only when 32 legal systems of member states implement the concept with due diligence. Those principles are unity, interconnectivity, agility, and creativity:

1. Unity: National perspectives and interests inside NATO and toward the alliance's partners and like-minded states vary. Yet, it is essential to obtain unity in pluralism to make the best use of the goodwill of the 32 member states, as everyone must be confident that diversity is not a source of weakness. However, it does help to build up strength.
2. Interconnectivity: Interoperability and mutual understanding in MDO must be embedded in harmonized norms and proceedings in all domains since all NATO member states are democratic states that follow the rule of law and transparent government mechanisms. Thus, not only at the military level but also politically, all scenarios need to be legally agreed and procedurally prepared.
3. Creativity: Some scenarios of hybrid warfare or interdisciplinary approach cannot be predicted; thus, the legal basis for MDO ought to have open clauses, leaving some space for maneuvering for national and NATO decision-makers. The same applies to the vital role of commanders who must command with openness and a creative mindset to tailor each MDO for a particular military-political-legal environment.
4. Agility: Initiative, speed, and flexibility relate to the same extent to the existing international norms and national standards as to military proceedings. Again, it all comes down to the change of mindset from joint to MDO across all alliance members, all domains, all dimensions, and all levels of command.[7]

[6] "Multi-Domain Operations in NATO—Explained," Allied Command Transformation, NATO, accessed 30 March 2023.
[7] Joanna Siekiera, "Legal Aspects of Multi-Domain Operations," *Magazine of the NATO Rapid Deployable Corps—Italy* 33 (2022): 12–14.

Cyberspace and Cybersecurity within Marine Corps Responsibility

Modern warfare uses methods other than military strategies equally. Political, media, and legal warfare (lawfare) are becoming increasingly important. Yet, the Western world is not benefiting from them. Russian Federation and the People's Republic of China have mastered unconventional armed conflict means. The impact of cyberspace operations is visible now and constantly growing. For example, the 2019 cyberattack on the Estonian government and cyberattacks on business premises and civilian infrastructures such as hospitals and other medical centers in the United States, up to 2022–24 with the Russian war in Ukraine and Chinese malicious tactics occurring monthly against government agencies, including embassies, defense, and high-tech companies.[8] Such crimes are far too common and cost trillions of dollars. Yet, they do not always make it into the common knowledge. Cybercriminals do not discriminate. Cyberattacks happen worldwide to all types of businesses. At the same time, the most devastating incidents occur at local government, healthcare, and financial institutions. Cybercrimes are at an all-time high, from man-in-the-middle attacks to ransomware.[9]

Cyberspace can be defined as a set of networks, nodes, configurations, and users. It includes rules and resources, including human resources, hardware, and software. This is the only nonphysical domain in MDO, next to the four physical domains of air, land, sea, and space. In an MDO world, each of those five components pursue their own unique strategy, according to their aims,

[8] "Significant Cyber Incidents," Center for Strategic and International Studies, accessed 30 March 2024.

[9] A *man in the middle* (MITM) attack is a form of active wiretapping attack in which the attacker intercepts and selectively modifies communicated data to masquerade as one or more of the entities involved in a communication association. "Glossary," Information Technology Laboratory, Computer Security Resource Center, National Institutes of Science and Technology, accessed 30 March 2024. *Ransomware* is a type of malware that holds a victim's sensitive data or device hostage, threatening to keep it locked—or worse—unless the victim pays a ransom to the attacker. Matthew Kosinski, "What Is Ransomware," IBM.com, accessed 30 March 2024.

capacities, and capabilities. Cyberspace operations, according to the U.S. Department of Defense (DOD), encompass three specific missions: offensive cyberspace operations (OCO), defensive cyberspace operations (DCO), and DOD Information Network (DOD IN) operations.[10] The first type of operation—OCO—focuses on power projection against the adversary. DCO is focused on defending the friendly network, understood as both own, national, and of a partner/ally in a Joint mission or exercises. DOD IN operations involve operating and maintaining DOD networks.[11]

Offensive cyberspace operations play a crucial role in every phase of modern warfare, by which is meant not only conventional warfighting but also competition between states and malicious nonstate actors, which spills over to the state of instability, collapsing or collapsed states, the lack of trust in law enforcement organs, and beyond.[12] Whether it be U.S. Cyber Command (USCYBERCOM) or Service-level components, OCO geographic combatant commanders hold the authority to use these cyberweapons. Yes, it is essential to begin perceiving cyberweapons as weapons, not as some additional, artificial, or imaginary token. Both military and civilians should shift the pivot of utilizing cyberweapons and cyber operations for our benefit and defense. Therefore, offensive cyberspace operations are an equally valid element of the warfighting function termed *fires*. Fires, commonly known as rockets and bombs, are lethal and nonlethal capabilities that produce a specific effect on a target.[13]

Similarly to psychological operations (psyops) and electronic warfare, OCOs are nonlethal fires. They aim to disrupt or deny an enemy's capability, yet they generally do not inflict casualties

[10] *Joint Targeting*, JP 3-60 (Washington, DC: Office of the Joint Chiefs of Staff, 2013), C-10–C-12.
[11] Maj Arun Shankar, "Cyberspace Operations: How Cyber Ops Fit within the Marine Corps Planning Process," *Marine Corps Gazette* 100, no. 5 (May 2016): 57–59.
[12] Compare the chapter by Kurtis Kjobech and Joanna Siekiera on Marine Corps involement in stability policing.
[13] *Joint Targeting*, GL-6.

directly. The examples here could be adversary data manipulation or network denial.[14]

Again, contrary to the other physical domains in MDO, cyberspace is not bound by the standard Cartesian coordinate system.[15] Other limitations are equally challenging. Collateral damage and other unintended consequences, such as the adversary's seizure of the computer code, pose different challenges and increase the commander's responsibility. Therefore, there is considerable debate in the cyber community, saying that the authority to deploy cybereffects in the battlespace must be held at component and combatant command levels, just as it is accepted with large-scale missiles and nuclear weapons.[16] A similar story of passing on competencies was observed when electronic warfare capabilities became mainstream in the 1970s. The general authority to use these nonkinetic fires was held at the highest levels of command. Nonetheless, once a wider audience understood risk and capabilities, a delegation of authority was eventually given to ground commanders.[17] Yet, some opponents of such delegation of authority in cyberspace argue that this is impossible and that cyberspace is so abstract and dimensionless that every OCO has the risk of undesired catastrophic effects.[18]

We should not forget that as much as the network structures often do not correspond with physical space, they have a logical

[14] Blake Strom, et al., MITRE ATT&CK: *Design and Philosophy* (McLean, VA: MITRE, 2020), I-4–I-5.
[15] *Cyberspace Operations*, JP 3-12 (Washington, DC: Department of Defense, 2018), I-7.
[16] Robert Axelrod and Rumen Iliev, "Timing of Cyber Conflict," *Proceedings of the National Academy of Sciences of the United States of America 111*, no. 4 (2014): 1298–303, https://doi.org/10.1073/pnas.1322638111; and Peter Feaver and Kenneth Geers, " 'When the Urgency of Time and Circumstances Clearly Does Not Permit . . .': Pre-delegation in Nuclear and Cyber Scenarios," in *Understanding Cyber Conflict: 14 Analogies*, George Perkovich and Ariel E. Levite, eds. (Washington, DC: Georgetown University Press, 2017).
[17] For more, see Arun Shankar, "Offensive Cyberspace Operations: Using Artificial Intelligence and Kill Chains to Analyze the Effects of MAGTF Execution Authority," *Marine Corps Gazette* 107, no. 2 (February 2023): 83–84.
[18] Giorgio Bertoli and Lisa Marvel, "Cyberspace Operations Collateral Damage-Reality or Misconception?," *Cyber Defense Review*, 31 July 2018.

space defined by internet protocol addresses. This logical space can be assigned to a Marine air-ground task force (MAGTF) battlespace owner, much like airspace, sea lanes, and battlefields.[19] Here, the uniqueness of the U.S. Marine Corps presents itself. Marine forces are perfectly fit for such operations, as their essence lies in Joint operations, or rather in combining various sea-land-air capabilities to accomplish a given task. They are well-equipped and trained to handle all the elements of a cyber operation. Offensive cyberspace operations can be designated as a restricted operating zone, which could also constrain maneuvers to reduce collateral damage.

Artificial Intelligence and Martial Robotics

Force Design 2030 served as a continuation of the revolutionary changes in the Marine Corps. The most noteworthy addition to the 2023 annual update was the codification of intelligent robotics and autonomous systems (IRAS) as a fundamental aspect of the Marine Corps approach to modern warfare. The "Principles of Martial Robotics" section within *Force Design 2030* is three-fold. It states that:

- The human element of armed conflict remains central in the use of IRAS.
- IRAS augments and enhances human processes without replacing the warfighter.
- Marines must fight at machine speed or face defeat at machine speed.[20]

The military-centric code for the ethical pillars of the law of armed conflict has not been settled, creating ambiguity in the overall process. The closest that has been seen in setting up the ethical foundations is the Engineering and Physical Sciences Research

[19] Shankar, "Offensive Cyberspace Operations," 84.
[20] *Force Design 2030: Annual Update* (Washington, DC: Headquarters Marine Corps, 2023).

Council, which released five ethical "principles for designers, builders, and users of robots." Those principles are:

- Robots should not be designed solely or primarily to kill or harm humans.
- Humans, not robots, are responsible agents. Robots are tools designed to achieve human goals.
- Robots should be designed in ways that assure their safety and security.
- Robots are artifacts; they should not be designed to exploit vulnerable users by evoking an emotional response or dependency. It should always be possible to tell a robot from a human.
- Finding out who is legally responsible for a robot should always be possible.[21]

While AI can refer to a machine's ability to think and perform tasks, as humans do, machine learning is a subset of AI that denotes a machine's predictive and pattern recognition ability.[22] Yet, AI is not macroscripting; its algorithms follow an endless cycle of inputting data and outputting predictions. The latter is checked against new data, and because of that, algorithm parameters improve accordingly through machine learning. The by far most recognizable examples of AI include facial recognition software and grammar editing applications.[23] Regarding OCO, examples of AI can be framed by a cyber kill chain. This is a sequence of regular events for every cyberattack operation.[24] The events can occur in either series, parallel, or a combination. Such decomposition of the cyberattack is essential

[21] Margaret Boden et al., "Principles of Robotics: Regulating Robots in the Real World," *Connection Science* 29, no. 2 (2017): 125–28, https://doi.org/10.1080/09540091.2016.1271400.
[22] Saqib Aziz and Michael Dowling, "Machine Learning and AI for Risk Management," in *Disrupting Finance: FinTech and Strategy in the 21st Century*, eds., Theo Lynn et al. (Cham, Switzerland: Palgrave Pivot, 2019).
[23] Shankar, "Offensive Cyberspace Operations," 84.
[24] Wen Zeng and Vasileios Germanos, "Modelling Hybrid Cyber Kill Chain," *Proceedings of the International Workshop on Petri Nets and Software Engineering 2019* 2024 (2019): 143–59.

to allow the decision-maker to understand the cyber system's dynamics better. It varies from a typical, oversimplified, binary scoring system that plagues most military decision support tools.

The algorithms develop and update historical data, forming the machine learning backbone for AI. As success relies on more data collected, the military commander needs to keep up-to-date data in a readily accessible format. Comprehension of the cyberspace environment should include how cyberspace operations synchronize with other warfighting elements across time and space.[25]

Ethics, including those obeyed in cyberspace, are the Corps' standards, laws, and orders for Marines. Yet, ethics and laws vary among NATO allies and often contradict the enemy's values. Eastern and Western ethics differ primarily in the aperture of which entity—the community or an individual—has primacy in one's life. NATO and its Western civilization partners tend to concentrate on individual rights, while Easterners countries see individual rights as entirely subject to the good of the community.[26]

As the technological pace and thus competition between the Western democracies and totalitarian regimes gains momentum, the law of armed conflict is left behind. Just as with cyberthreats, states are unwilling to codify AI. Many ideas about AI policies exist, yet particular states' resources, capabilities, and growing ambitions make it impossible to gain international unanimity over an "AI treaty." Again, on the one hand, that leaves a lot of (legal warfare) opportunities to commit cybercrimes, which are not de jure understood as international crimes. On the other hand, states, including those gathered in political-military organizations such as NATO, are given broad possibilities to counter cyberspace operations and carry them out.

[25] Shankar, "Offensive Cyberspace Operations."
[26] Joanna Siekiera and GSgt Jeremy Kofsky, "Robotically Ethical Marines: Doing the Right Thing, at the Right Relevance, for the Right Reason," *Marine Corps Gazette* 108, no. 2 (February 2024): 28–32.

Consequently, legal, cultural, and ethical awareness should be executed in the professional military education of Marines to prepare them for future warfare and capitalize on the technological advances we strive for.[27] Cyberspace operations are the newest addition in MDO and will inevitably gain primacy in future conflicts. The enemies of the Western system of values already use all available (legal and illegal) means, resources, and armed forces—and they do this simultaneously. That is the true essence of MDO presented against the Western world. Our weakness, but also our strength, is our law, our frameworks, and our principles. They may be seen as a weakness because our enemies do not have them; thus, they are not bound by them and can act more freely, quickly, and effectively with much less resources spent. They are our strength because, due to moral, disciplinary, or even criminal accountability, we have a reference point below which none of the allies will act (a baseline). Laws, regulations, political decisions, strategies, and tactical guidelines unite Western states despite our national differences. It protects our heritage, traditions, and values in the long run. The awareness, not any more assumptions, remains alert as never before—we must understand the perpetrator and their motives, morale, and rationale. Cyberspace is a space in which two civilizations exist yet cannot coexist: a democratic world based on international law and order and authoritarian regimes for whom principles of democracy, the rule of law, protection of human rights, and freedoms do not exist but are a political-military target.

Cyber Marines Leading the Way for Others

The cyberspace and space domain in MDO have emerged and become formalized for only a decade. Thus, many tactical commanders lack a comprehensive understanding of integrating these domains into traditional conflict.[28] When considering the Marine

[27] Siekiera and Kofsky, "Robotically Ethical Marines."
[28] Arun Shankar, "Space & Cyber: Combined-arms Capabilities For the Conflict Phase of Warfare," *Marine Corps Gazette* 108, no. 4 (April 2024): 82–84.

Corps structure, looking at it as a role model for other NATO allies and like-minded partners in the cyber domain is essential. OCO almost solely resides at or near USCYBERCOM within the Marine Corps Cyberspace Warfare Group. Defensive cyber operators reside within the Service at the Marine Corps Cyberspace Operations Group and the communications battalions. Then, daily operations are performed by the long-standing communications military occupational specialty community. Cyber planners liaise with the Marine Corps Information Command, where effects can be requested. They also serve as resident subject-matter experts for the Marine Expeditionary Force (MEF) Information Group and MEF commanders. Finally, the Marine Corps Forces Cyberspace Command holds most of the Service's cyber capability. As a Service component to a combatant command, its capabilities are prioritized and centralized at USCYBERCOM. Marines are provided exceptional training and real-world experience while in support of gaining and maintaining cyberspace superiority. They also offer defensive capabilities on the Marine Corps Enterprise Network.[29]

Cyber and space are both independent warfighting domains that require global resource management. The focus on centralized ownership of these domains proves their strategic role in future warfighting. Thus, U.S. Space Command (USSPACECOM) and USCYBERCOM have operational responsibility for these domains. They perform independent missions as well as provide support for other combatant commands. USCYBERCOM and USSPACECOM have strategic responsibilities in establishing cyber and space superiority, independent of any adjacent warfighting mission. The cyber and space warfighting domains dominate the competition phase of warfare, where most actions derive strategic value. They also contribute to the global integration of all

[29] Shankar, "Space & Cyber," 83.

combatant command efforts and support global campaign plans.[30]

Similar to other activities and tasks performed by Marines, such as logistics, fires, and intelligence, cyberspace operations are not to limit but to offer the broadest picture of the actual situation to accomplish the military aim. This seems obvious, yet minding interdomains struggles and budgetary rivalry, cyber, being a nonlethal force and yet the newest area of warfighting, is still seen as a future, not a current capability. Wargaming is also an educational tool of which Marines are proud. Cyber wargaming should, therefore, be used as a model for other NATO allies and like-minded partners.

Conclusions

Despite the general knowledge, especially outside of the United States, in those countries that do not have marine forces or naval infantry as a component of their armed forces, it is essential to underline that the Marine Corps is not the only crisis response force nor are they only U.S. Indo-Pacific Command focused. Another myth is that they are purely amphibious forces (despite many amphib ships, where most of the military budget goes to capital ships and land forces). The Marine Corps does not stay out of primary combat operations; Iraq and Afghanistan are the most palpable examples.

The impact of NATO using MDO in the future, perhaps shortly, will most likely extend the geographical terrain of its 32 member states. The legal-cultural awareness within partner armed forces and the legal culture of the enemy will become more and more critical in hybrid warfare, where irregular tactics will subsidize. At the same time, it does not necessarily supersede conventional warfighting. Using all means of the MDO concept will guarantee NATO's further endeavors in guarding the international law system of peace and stability worldwide. Cyber is the last added domain, yet

[30] Shankar, "Space & Cyber," 84.

the fastest-growing one, and due to its uniquene nonphysical and nonlethal character, it requires our efforts, training, budgeting, and public promotion.

The Marine Corps is well-equipped, well-trained, and well-prepared for cyberspace operations, regardless of place and time of occurrence. The Corps' unique character and capabilities reflect its high level of readiness, flexibility, and logistical background, allowing the United States to promote the Corps as an international role model in future armed conflicts. The cyber domain, where the usage of AI models, intelligent robotics, and autonomous systems is the highest among the five domains, will only prove how relevant the Marine Corps is in twenty-first-century conflict. Investment in innovation and hybrid warfare perspectives is a key to understanding our capabilities, assets, and resources and acknowledging the enemy's values, rationale, and technological advancement. Cyberspace operations performed by the Marine Corps will show a practical and procedural pathway for other NATO member states on how to act. Hopefully, such lessons will occur at the wargaming stage, so that the Western world will be fully prepared for cyber warfighting in the future.

Chapter
12

Innovation in PME Wargaming for Innovation in Warfare

By James "Pigeon" Fielder, PhD

> Now the great secret of [wargaming's] power lies in the existence of the enemy, a live vigorous enemy in the next room waiting feverishly to take advantage of any of our mistakes, ever ready to puncture any visionary scheme, to haul us down to earth.
>
> ~ Captain William McCarty Little, USN[1]

Introduction

The Crucible is a live-action roleplaying wargame. Critics argue that games are frivolous, make-believe, child-like activities. Games *are* frivolous, as they take place in distinct spaces governed by different rules from reality. However, well-played games invoke powerful psychological effects: units marked by chits on a manual wargame become living objects as players compete against other players. Stress and uncertainty make obsta-

[1] Jeff Appleget, Robert Burks, and Fred Cameron, *The Craft of Wargaming: A Detailed Planning Guide for Defense Planners and Analysts* (Annapolis, MD: Naval Institute Press, 2020), 185.

cles feel real to players, and defeat or victory remain in the minds of players years later. The lessons players learn remain as well.

If you have ever sculpted a sand table or sketched out a field problem with a stick in the dirt at your feet and pitted Marines against Marines to solve the problem, you applied wargaming techniques. If you have ever drawn a scenario on a whiteboard and facilitated scenario debate with your squad, platoon, or company, you applied wargaming techniques. Although far more complex in physicality, Marines transforming through the Crucible experience wargaming techniques, with the instructors filling the role of the thinking opponents—yes, the dungeon masters or game masters who mold recruits and candidates into Marines and continue to develop them across professional military education schools (PME).

The 38th Commandant General David H. Berger embraced wargames and 39th Commandant General Eric M. Smith is charting the same course. They both argue that wargames hone a Marine's most powerful weapon: the mind. Wargames hone mental agility and adaptability that carry over to the myriad challenges that Marines face across multiple and increasingly long-range challenges. However, senior leader enthusiasm for wargames only opens the aperture: wargaming will not stick unless the method resonates with Marines. This chapter describes why wargames are so powerful, psychological notes that are missing in Marine wargaming literature, and argues that, for wargaming to stick, it must be embedded in Marine culture. Wargaming must be intentionally baked into PME at all levels, both enlisted and commissioned, so that wargaming methods become second nature as unit training tools.

This chapter focuses on educational wargaming rather than analytic wargaming. Analytic wargaming is intended to generate testable hypotheses against analysis of specified data, which the Marine Corps is applying as part of ongoing force design efforts. Educational wargaming is intended to test human decision-making against thinking opponents and measurable learning objectives. This is

also not a complete history of military or Marine Corps-specific wargaming.[2] Although earlier Marine Corps doctrine documents are referenced, the documents primarily leveraged here are General Berger's 2019 *Commandant's Planning Guidance* and General Smith's *Fragmentary Order (FRAGO) 01-2024, Maintain Momentum*. Nor is this chapter a thorough review of Marine Corps wargaming efforts outside of PME.[3] However, this chapter contends that Marines who internalize wargaming at Corps schoolhouses will evangelize wargaming as a tool across units far more effectively than any order, FRAGO, or doctrine document.

Wargaming, Doctrine, and Commandant's Guidance

Wargaming is already embedded in Marine Corps doctrine. *Warfighting*, Marine Corps Doctrinal Publication (MCDP) 1, states that all professional schools should favor developing military judgment over simply memorizing lists of facts, and that general professional development should include recommended reading lists, map exercises, battle studies, terrain studies, and wargames.[4] Moreover, exercises should include chaos, uncertainty, and opposing wills—that is, thinking opponents.[5] In his 2019 *Commandant's Planning Guidance*, Berger argued that Marines "must be comfortable with chaos, comfortable with mission tactics, and comfortable operating in a highly distributed manner across any potential battlefield."[6]

[2] For excellent historic reviews, see Sebastian Bae and Maj Ian T. Brown, "Promise Unfulfilled: A Brief History of Educational Wargaming in the Marine Corps," *Journal of Advanced Military Studies* 12, no. 2 (2021): 45–80, https://doi.org/10.21140/mcuj.20211202002; and Matthew B. Caffrey Jr., *On Wargaming: How Wargames Have Shaped History and How They May Shape the Future* (Newport, RI: Naval War College Press, 2019).

[3] Damien O'Connell, "Progress and Perils: Educational Wargaming in the US Marine Corps," *Maneuverist*, 22 December 2023.

[4] *Warfighting*, Marine Corps Doctrinal Publication (MCDP) 1 (Washington, DC: Headquarters Marine Corps, 2018).

[5] *Warfighting*; and Col Eric M. Walters, "Developing Self-Confidence in Military Decision Making: An Imperative for Wargaming," *Journal of Advanced Military Studies* 12, no. 2 (2021): 167–81, https://doi.org/10.21140/mcuj.20211202007.

[6] *Commandant's Planning Guidance* (Washington, DC: Headquarters Marine Corps, 2019), 16.

General Berger further argues that PME must embrace active learning that encourages teamwork and problem-solving, to include human-on-human wargames that encourage students to hone their decision-making skills against thinking opponents. Indeed, voluminous literature suggests that wargames are premier environments for fostering agency and decisiveness while also learning to work with incomplete information and through unintended consequences.[7] General Smith concurs, noting that "a zero-defect mentality stifles boldness, initiative, and runs counter to our warfighting doctrine."[8] Wargames allow Marines to practice boldness and initiative against the full spectrum of Marine challenges. While wargames are risk-free, lessons learned feel as real to players as if they experienced them on the battlefield.[9] Wargames prepare Marine minds against real fear and uncertainty.

Why Wargames Work

> Just as there is no formal difference between play and ritual, so the "consecrated spot" cannot be formally distinguished from the play-ground. The arena, the card-table, the magic circle, the temple, the stage, the screen, the tennis court, the court of justice, etc., are all in form and function play-grounds, i.e. forbidden spots, isolated, hedged round, hallowed, within which special rules obtain. All are temporary worlds within the ordinary world, dedicated to the performance of an act apart.[10]

[7] Francesco Crocco, Kathleen Offenholley, and Carlos Hernandez, "A Proof-of-Concept Study of Game-Based Learning in Higher Education," *Simulation and Gaming* 47, no. 4 (2016): 403–22, https://doi.org/10.1177/1046878116632484.
[8] *Fragmentary Order (FRAGO)* 01-2024, *Maintain Momentum* (Washington, DC: Headquarters Marine Corps, April 2024); and *Learning*, MCDP 7 (Washington, DC: Headquarters Marine Corps, 2020).
[9] Of course, wargames tied to physical maneuvers do incur real risk of injury, but risk is necessary for Marines to drill their wartime skills and tasks.
[10] Johan Huizinga, *Homo Ludens: A Study of the Play-Element in Culture* (Mansfield Centre, CT: Martino Publishing, 2014), 10.

Wargaming has image problems. The word *game* trivializes the word *war*. Wargames are not historically accurate enough or are too historically accurate.[11] Wargames must avoid chance even though actual war has plenty of friction to spare. There is also the idea that only nerds and children play games, even though adults gladly cheer on teams violently crashing together to fight over small plastic balls and pucks.[12] To overcome these image problems, adult learners generally need to know why they are learning new knowledge and skills and highlights wargaming as a premier tool for situating warfare concepts with multisensory context.[13] Marines well-versed in wargaming know why wargaming works, but existing literature does not explain why for skeptical Marine leaders trying to maximize training with limited time.

Dutch cultural historian Johan Huizinga's seminal book *Homo Ludens* (Man the Player), originally published in 1938, is the foundational work in the field of game studies. What he meant by this section's opening quote is that games are synonymous with religious rituals, with players experiencing the same multisensory effects as practitioners experiencing spiritual awe. Huizinga named this effect the *magic circle*, adopted by other ludologists and also referred to as *liminality* and *synthetic experience*.[14] The magic circle is the area of the game (or religious performance) inside which ritual becomes reality to the players. Everything players experience inside a well-played game feels real, especially as stress and chal-

[11] For an overwrought example, see the commercial wargame *The Campaign for North Africa: The Desert War, 1940–43* (New York: Simulations Publications, 1979).
[12] Huizinga, *Homo Ludens*; LtCol Scott Jenkinson, AA, and GCapt Jo Brick, RAAF, "Wargaming in PME: Introducing Wargaming to the Australian Defence College," in Sebastian J. Bae, ed., *Forging Wargamers: A Framework for Professional Military Education* (Quantico, VA: Marine Corps University Press, 2022), 115–38, https://doi.org/10.56686/9798985340327; and O'Connell, "Progress and Perils."
[13] *Learning*, 1-19.
[14] Roger Caillois, *Man, Play, and Games*, trans. Meyer Barash (Urbana: University of Illinois Press, 2001), 12; John Curry, ed., and Peter Perla, Peter Perla's *the Art of Wargaming: A Guide for Professionals and Hobbyists* (Morrisville, NC: Lulu Press, 2012), 627; Huizinga, *Homo Ludens*, 12; and Victor W. Turner, *From Ritual to Theatre: The Human Seriousness of Play* (New York: Performing Arts Journal Publications, 1982), 24–25.

lenges increase and their ability to demonstrate knowledge, skill, courage, and strength matters.[15]

The magic circle can be literal, such as the physical boundaries of a football field, or it can be figurative, such as the moment a weightlifter chalks their hands, or a poker dealer shuffles a deck of cards. In the literal sense, players in a physically delineated play area are inside a visible temple that both players and spectators can see. In the figurative sense it is actual sense: that is, the moment a player shuffles a deck, rolls a die, or picks up a piece, their mind enters the game. Games are also bound by rules, and crossing the magic circle requires that players and spectators accept the rules as reality for the duration of the game. In a well-played game, players are willing to bend reality to fit inside the rules: a poker hand is meaningless outside of the game but has tremendous meaning at the table.

Wargames are risk-free in that players can practice tactics and strategies without losing Marines but they feel real from viscerally grappling with thinking opponents under uncertain conditions and duress. Moreover, if playing a side modeled after real-world allies and adversaries, wargames teach players how to think like their allies and opponents.[16] Although nothing replaces real fear in actual combat, wargames can synthesize fear by challenging players' sensory perceptions.[17] Increase or decrease the room temperature, restrict food and sleep, adjust lighting, or add background noise.

[15] J. Tuomas Harviainen and Andreas Lieberoth, "Similarity of Social Information Processes in Games and Rituals: Magical Interfaces," *Simulation and Gaming* 43, no. 4 (2012): 528–49, https://doi.org/10.1177/1046878110392703; and Huizinga, *Homo Ludens*, 64.

[16] John Curry, "Professional Wargaming: A Flawed but Useful Tool," *Simulation and Gaming* 51, no. 5 (2020): 612–31, https://doi.org/10.1177/1046878120901852; John Curry, ed., and Graham Longley-Brown, *Successful Professional Wargames: A Practitioner's Handbook* (n.p.: History of Wargaming Project, 2019), 627; and Philip Sabin, *Simulating War: Studying Conflict through Simulation Games* (London: Continuum, 2012), 17.

[17] Curry and Longley-Brown, *Successful Professional Wargames*, 21; Kjetil Enstad, "Professional Knowledge through Wargames and Exercises," *Scandinavian Journal of Military Studies* 5, no. 4 (2022): 233–43, https://doi.org/10.31374/sjms.130; and Harviainen and Lieberoth, "Similarity of Social Information Processes in Games and Rituals: Magical Interfaces," 539.

Inject blackout cards that remove capabilities, which tests *Warfighting*'s advice to avoid overreliance on technology. Shock players by initiating the wargame on D+3 and placing them in an immediate reactive state. Restrict the amount of time available for players to make decisions. Stress constricts players' ability to process information, an overwhelmingly uncomfortable state that players learn to overcome through applying knowledge and skill. Players learn to concentrate on the tasks at hand and filter out extraneous data. This process of reacting and acting under pressure further increases feelings of trust and belonging with their fellow participants and gives symbols and narratives that players share almost totemic power.[18]

But to give games real power, failure must have costs that players must learn to overcome.[19] While wargames have win conditions, winning should never be guaranteed. Using a tactical wargame example, it is easy to see which scenario has more emotional resonance: the referee telling the platoon commander that a marker represents a wounded Marine, or the referee telling the platoon commander that the Marine will bleed out in 10 minutes if not stabilized, then handing the player a card with the Marine's portrait, name, age, and home of record, noting they are the only child of a single parent. Players learn more from failing than winning, and failure drives players to perform better. Further, honing decision-making under in-game stress carries over to real-world behavior. Avid gamers repeatedly note that confidence learned in-game carries over into their real-life interactions.[20]

[18] Caffrey, *On Wargaming*, 343; Curry and Perla, *The Art of Wargaming*, 23–24; Curry and Longley-Brown, *Successful Professional Wargames*, 21; Crocco, Offenholly, and Hernandez, "A Proof-of-Concept Study," 404; Harviainen and Lieberoth, "Similarity of Social Information Processes in Games and Rituals: Magical Interfaces," 535; *Warfighting*, 3-10; and Peter Perla and Ed McGrady, "Why Wargaming Works," *Naval War College Review* 64, no. 3 (2011), 4.

[19] James Fielder, "Gaming to Lose: Learning from Failure in Classroom Games," in Mark Harvey, James Fielder, and Ryan Gibb, eds., *Simulations in the Political Science Classroom: Games without Frontiers* (New York: Routledge, 2023), 19–29.

[20] Gary A. Fine, *Shared Fantasy: Role-Playing Games as Social Worlds* (Chicago: University of Chicago Press, 2002), 54.

Players remember well-played games for the rest of their lives, akin to miniature rites of passage.[21] In a series of interviews with roleplaying game players, sociologist Gary Fine notes that players remember game details with crystal-clear clarity decades later: turn decisions, character descriptions, even the clothes other players were wearing. The same interviewees often could not remember real-life details from a week earlier.[22] Although more complex in movement and resources than a manual wargame, the Crucible is a genius example of how powerful wargames and training exercise can be when players must work together to overcome overwhelming objectives in stressful environments. For those who experienced the Crucible, remember how you felt receiving your Eagle, Globe, and Anchor while standing under the shadow of the Iwo Jima Memorial.

PME Wargaming: More than Just Majors

> Wargaming is a synthetic environment, containing an abstraction of conflict, using human decision-making, and demonstrating consequences for those human decisions.[23]

Despite guidance to apply wargames at all PME levels, the center of Marine Corps PME wargaming mass remains resident field grade officers at Marine Corps University.[24] It does not have to be this way: the Marine Corps is well-positioned to create a cadre of designers (and enthusiastic players) across all PME schools, and both the 2019 *Commandant's Planning Guidance* and *FRAGO 01-2024* are open licenses to wargame. Integrating wargaming at all levels

[21] James Sterrett, foreword to Bae, *Forging Wargamers*, vii–xii; Jenkinson and Brick, *Wargaming in PME*; and Curry and Perla, *The Art of Wargaming*.
[22] Fine, *Shared Fantasy*, 136.
[23] Curry and Perla, *The Art of Wargaming*, 23–24.
[24] Maj Ian T. Brown, and Capt Benjamin M. Herbold, "Make It Stick: Institutionalizing Wargaming at EDCOM," in Bae, *Forging Wargamers*, 139–72; and Kyleanne Hunter, "Immerse Early, Immerse Often: Wargaming in Precommissioning Education," in Bae, *Forging Wargamers*, 30–50.

also requires not only top-down but also bottom-up intrinsic motivation to do so. Enthusiastic senior leader support for wargaming will open the aperture for the rest of the Corps, but only if time is similarly opened for units to integrate wargaming into existing training plans. Senior leader encouragement also requires bottom-up intrinsic motivation to wargame. Wargaming requires a desire for which orders alone are insufficient. Without knowing the *why* of wargaming, there is little interest in the *how* of wargaming.[25]

First, full wargame design courses should be integrated into senior enlisted and field-grade PME. For example, the U.S. Air Force Academy's Department of Military and Strategic Studies has offered an elective three-credit wargame design course since 2018.[26] Cadets receive 40 hours of instruction on wargame design and work together in teams to design capstone wargames for actual customers. The Military Operations Research Society also offers a 40-hour wargame design certificate condensed into a weeklong intensive course.[27]

Second, if the Marine Corps intends to follow *Training and Education 2030* guidance to make PME dynamic and portable, fit within career time constraints, and reward intellectual curiosity, then wargaming must be baked into the PME curriculum and not merely tacked on as an afterthought. This includes all levels of enlisted and commissioned PME, and both distance and in-residence.[28] Ideally, it should be included even by precommissioning sources such as Naval Reserve Officer Training Corps, U.S. Naval Academy, and Officer Candidates School.[29] Here, too, Marine Corps

[25] Bae and Brown, "Promise Unfulfilled," 70; and Caffrey, *On Wargaming*.
[26] James Fielder, "Reflections on Teaching Wargame Design," *War on the Rocks*, 1 January 2020. The USAFA course is titled "MSS 372: Wargaming Air, Space, and Cyber Power."
[27] Yuna Huh Wong et al., *Next-Generation Wargaming for the U.S. Marine Corps: Recommended Courses of Action* (Santa Monica, CA: Rand, 2019), https://doi.org/10.7249/RR2227.
[28] Brown and Herbold, "Make It Stick," 143; and Hunter, "Immerse Early, Immerse Often," 31, 37, 41.
[29] Hunter, "Immerse Early, Immerse Often," 41.

University is well-positioned to lead the initiative in providing best practices, resources, and training. Given wargaming's sustained seriousness since 2019, schoolhouses must not only apply wargames but also produce wargame designers using 40 hours or one semester as training block measurements.[30] Along with the Wargaming Cloud (discussed further below), training the wargaming trainer will be one of the best investments the Corps can make, as certified Marine wargamers will then take their knowledge to the field.

Convincing the Unconvinced

> During wargames, [People's Liberation Army Navy] experts sometimes even don adversary uniforms.[31]

If Marines require further convincing that wargaming works, consider the People's Republic of China (PRC). The PRC is already contesting the United States' freedom of movement in the South China Sea, a driver of the Corps' stand-in force response. While critics contend that wargaming is a frivolous activity, the PRC takes wargaming seriously, and the PRC is only one of numerous challenges facing the Corps. Commandant Smith notes that battlefield frontages, dispersions, and depths are increasing, and Marines are expected to master more tools across contested environments.[32] The Marine Corps faces multilevel, multimission, and multidomain challenges with little room for mistakes.

PME wargames hone Marine decision-making across mission types. As long as the wargame matches learning objectives, Marines can test their mettle against more threatening versions of reality and even unreality.[33] Indeed, U.S. Strategic Command's

[30] Walters, "Developing Self-Confidence in Military Decision Making," 83.
[31] Ryan D. Martinson, "The PLA Navy's Blue Team Center Games for War," U.S. Naval Institute *Proceedings* 150, no. 5 (2024).
[32] *FRAGO 01-2024, Maintain Momentum*, 86.
[33] Tom Mouat, "The Use and Misuse of Wargames," *Scandanavian Journal of Military Studies* 5, no. 1 (2022): 209–20, https://doi.org/10.31374/sjms.121; and Walters, "Developing Self-Confidence in Military Decision Making," 95.

completely speculative *Concept of Operations (CONPLAN)* 8888-11, "*Counter-Zombie Dominance*," tests unit response against a global zombie outbreak.[34] Speculative scenarios done well invoke the same synthetic experience as real-world scenarios and encourage players to critically examine their tactics, techniques, and procedures under crushingly absolute uncertainty. Regardless of scenario, wargaming fosters mental agility that carries over into real-world action. Wargaming prepares Marines to pursue victory regardless of the threat environment.

Suggestions

> Socrates argues that play . . . yields the kind of analysis, critical thinking, and limberness of mind that philosopher kings or queens require.[35]

Marine Corps University should:

Build a commander's gaming list: The best way to learn wargaming is to play wargames, followed by studying wargames and design fundamentals. The good news is that the Marine Corps already has a foundation, with the Marine Corps Association providing wargames such as *Memoir '44* to units and the Brute Krulak Center for Innovation and Future Warfare securing commercial computer game licenses for the Wargaming Cloud. By playing games, budding designers develop a repertoire of game mechanics, such as dice probability, hidden player movement, or random-event cards, which can be matched or modified to meet learning objectives.[36]

Tap internal and external synergies: Marine Base Quantico is the Corps' wargaming brain trust. Although the mission of the new General Robert B. Neller Center for Wargaming and Analysis

[34] *Concept of Operations Plan (CONPLAN)* 8888-11, "*Counter-Zombie Dominance*" (Omaha, NE: Headquarters, U.S. Strategic Command, 30 April 2011).
[35] Crocco, Offenholly, and Hernandez, "A Proof-of-Concept Study," 404.
[36] Rex Brynen, "Teaching Professional Wargaming," *PAXsims* (blog), 10 October 2015; Bae and Brown, "Promise Unfulfilled," 70; Fielder, "Reflections on Teaching Wargame Design"; and Walters, "Developing Self-Confidence in Military Decision Making," 86.

is to test and enhance Marine Corps plans and capabilities, there is opportunity for the Neller Center and Marine Corps University to work together to create deployable materials for all PME levels.[37] Marine Corps University should continuously engage with Service centers such as the U.S. Air Force's Air University Curtis E. LeMay Center, the Naval War College's wargaming department, and the U.S. Army's Command and General Staff College. Consider playing a distributed wargame across U.S. Service channels.

Balance fidelity and playability: As Sebastian J. Bae and Major Ian T. Brown noted in a 2021 article for the *Journal of Advanced Military Studies*, designers must balance how realistic a wargame is with how easy it is to learn and play.[38] On the one hand, Marines face numerous threats on modern battlefields; but on the other hand, kitchen-sink designs are barely playable beasts. Start with a solid learning objective and strip down the wargame mechanics to the essentials necessary to measure the objective. If commanders and designers want added complexity, consider designing the wargame to look and feel like a tool Marines would use in the field. Embed procedures directly into the mechanics, such as requiring proper order construction and radio communication. Build or modify wargames using materials on hand, such as maps and index cards. Make it as easy as possible to cross into the magic circle, liminality, and synthetic experience.

Manual wargames are cheaper and easier to deploy: Somewhere out in the Marine Corps wilderness is a cargo container filled with TACWAR combat simulation equipment that grew too big in scope creep and ease of use.[39] The combat results of manual warga-

[37] *Force Design 2030: Annual Update* (Washington, DC: Headquarters Marine Corps, 2023), 5; and *Training and Education 2030* (Washington, DC: Headquarters Marine Corps, 2023), 13, 15.

[38] Bae and Brown, "Promise Unfulfilled," 70; and Philip Sabin, "Wargaming in Higher Education: Contributions and Challenges," *Arts and Humanities in Higher Education* 14, no. 4 (2015): 329–48, https://doi.org/10.1177/1474022215577216.

[39] Brown and Herbold, "Make It Stick," 141; and Sabin, *Simulating War.* The Institute for Defense Analyses Technical Warfare (TACWAR) model is a fully automated combat simulation.

mes are clearly visible and not hidden by algorithmic black boxes, and manual wargames such as Sebastian Bae's *Littoral Commander: Indo-Pacific* do not require programming skills to design, maintain, or modify.[40] A manual wargame can be as simple as placing coins as unit markers on a 1:25 topographical line map and facilitating maneuver through "theater of the mind" narrative alone.

But computer solutions are viable options: Commercial computerized wargames are often designed with rapid onboarding in mind.[41] Commercial publishers draw players in via in-game tutorials and reasonably intuitive interfaces, and further allow players to modify in-game parameters ranging from individual weapon statistics to total conversions (think converting a World War II wargame to the Korean War). Examples include the *Operational Art of War series, Command: Modern Operations, Shadow Empire*, and *Hearts of Iron IV*. The Marine Corps University Wargaming Cloud is genius in that it provides its PME residents access to a variety of popular commercial wargames. If expense were no object, the Wargaming Cloud would be a great tool to deploy at other Marine Corps schoolhouses. In the absence of licenses, though, the free *Vassal* engine offers numerous wargame modules and is intended for play between human opponents.[42] This is also not to disparage contracted solutions; there were many wargames on display at the 2024 Modern Day Marine Expo that featured intuitive interfaces and ease-of-use.

Wargaming is not a one-time event: An event at Marine Corps University must not be the first and only time Marines execute educational wargames. Wargaming builds on wargaming, ranging from short squad-level skirmishes to multiday events that test Ma-

[40] Sterrett, foreword to Bae, *Forging Wargamers*, vii; Bae and Brown, "Promise Unfulfilled," 70; and Sabin, "Wargaming in Higher Education," 337.
[41] Brown and Herbold, "Make It Stick," 152; Sabin, *Simulating War*, 256; and Sabin, "Wargaming in Higher Education," 337.
[42] See VassalEngine.org.

rine decision-making against a wide range of scenarios.[43] When in doubt of an objective, the Marine Corps core competencies detailed in *Marine Corps Operations*, MCDP 1-0, are conveniently written like testable and measurable objectives.[44] If still in doubt, create a hasty tactical scenario that tests the "every Marine a rifleman" creed.

Make it unclassified: If PME is to be portable, then wargames must be executable anywhere at any time. If learning objectives are met, classification adds little additional value but does add tremendous expense.[45] With just two opponents, CNN access, and a whiteboard, anyone can create a wargame. In his book *Simulating War*, Philip Sabin has a complete wargame that fits on two sides of a postcard and a method for designing a wargame using nothing but a standard deck of playing cards.[46] While an educational wargame, the data are not as important as honing decision-making against a thinking opponent where the outcome is uncertain and the stakes feel real. Moreover, analytic wargaming data should be separated from analytic wargame mechanics. While the data lend accuracy to analysis, mechanics simply govern how wargame functions. If the Neller Center designs a wargame for generating actionable force design hypotheses that also features an intuitive interface, consider porting the wargame interface as a separate tool.

Conclusion

> Often conflated in the minds of some Marines with recreational pastimes, or perhaps more often with simulations used for individual and small unit training, wargaming is in fact a set of tools for structured thinking about military problems within a competitive framework—in the presence of that

[43] Bae and Brown, "Promise Unfulfilled," 69; and Mouat, "The Use and Misuse of Wargames," 211.
[44] *Marine Corps Operations*, MCDP 1-0 (Washington, DC: Headquarters Marine Corps, 2011), 2-18.
[45] Mouat, "The Use and Misuse of Wargames," 213.
[46] Appendix, in Sabin, *Simulating War*, 281–86.

> "thinking enemy" who lies at the heart of our doctrinal understanding of war.[47]

The Marine Corps spans the globe and stands ready to face myriad threats to U.S. national security. Marines drill to practice physical skills, but they also must hone their mental agility. As this chapter argues, wargaming done right is a powerful tool for honing Marine minds into weapons. Wargaming works because it places Marines in an arena where they face off against thinking opponents. Victories and defeats stick as lessons learned to prepare Marines for the lethal arenas they face across the spectrum of conflict. The 38th and 39th Commandants enthusiastically support wargaming in education, but senior leader enthusiasm alone will not inculcate wargaming across the Corps. For wargaming to stick and become a promise fulfilled, it must be embedded in Marine Corps thinking, and PME is the premier place to do so. Marine Corps University and the Neller Center represent the potential of wargaming and offer means to embed wargaming across all levels of PME—and they offer the greatest opportunity for embedding wargaming across units. The most powerful weapon in the world is a Marine with a rifle, but wargaming ensures that the second most powerful weapon in the world is the agile Marine mind. Game on!

[47] *Commandant's Planning Guidance* (Washington, DC: Headquarters Marine Corps, 2019), 18.

Chapter
13

Ender's Legacy

Digital Wargaming in the Twenty-first Century

By Kevin Williamson

Introduction

Digital wargaming is becoming an essential tool for modern military training, offering the benefit of fostering a culture of mental fitness. Marine Corps University's adoption of Microsoft's Azure Cloud environment and commercial off-the-shelf (COTS) digital wargames is an example of how digital wargaming can enhance the critical decision-making skills typically acquired only through extensive iterations of field exercises, professional military education (PME) schools, and limited wargaming opportunities with priority historically given to officers while simultaneously opening up avenues for unique applications suited for digital solutions.

Providing a distributed learning capability to the U.S. military is the first step in changing how we look at gaming, and creatively thinking about how to combine tabletop and digital wargaming to enhance antiquated training methods is crucial to keep up with the technology being used. Using standard wargame structures and techniques without modifying the way we do wargaming by taking into consideration the cutting-edge technology being used commercially will lead to a stagnation in the craft of wargaming.

The subsequent sections delve into updated methodologies and cultural organizations such as Fight Club International, illustrating their significance in the evolution of PME wargaming in the twenty-first century, before culminating in a conceptual idea of how digital wargaming can be applied beyond the scope of PME and analysis.

Interactive Tactical Decision Games

Wargaming in the twenty-first century has come a long way from the inception of simulations like *Harpoon* and *Close Combat*. Orson Scott Card's military science fiction novel *Ender's Game* has been part of the Marine Corps' suggested reading list since the creation of the Commandant's Reading List in 1988.[1] The book was considered a primary tool to illustrate many of the principles of maneuver warfare, and in doing so became the leading charge into exploring the realm of wargames, including realistic force-on-force training.[2] This chapter takes *Ender's Game* and its contribution to the innovation of the Marine Corps and extends that vision toward a more modern approach to digital wargaming building on the legacy junior leaders are inheriting.

Revolutionizing institutional wargaming means continuing with the innovative spirit *Ender's Game* provided the armed forces to seek more efficient, dynamic ways to train servicemembers for war, not the war. With the rapid growth of computer gaming in the entertainment industry, commercial wargames have reached a level of parity with professional software and in some cases exceeding the capabilities currently used in the government sector.

To embrace digital wargaming, there needs to be a culture of maintaining tactical and operational fitness via wargaming. The U.S. armed forces frequently conduct field exercises and train-

[1] Capt Edwin Powers, "Ready Player One and Preparing for Eureka Moments," *Warfighters Book Club* (blog), Marine Corps Association and Foundation, accessed 15 February 2023.
[2] Powers, "Ready Player One and Preparing for Eureka Moments."

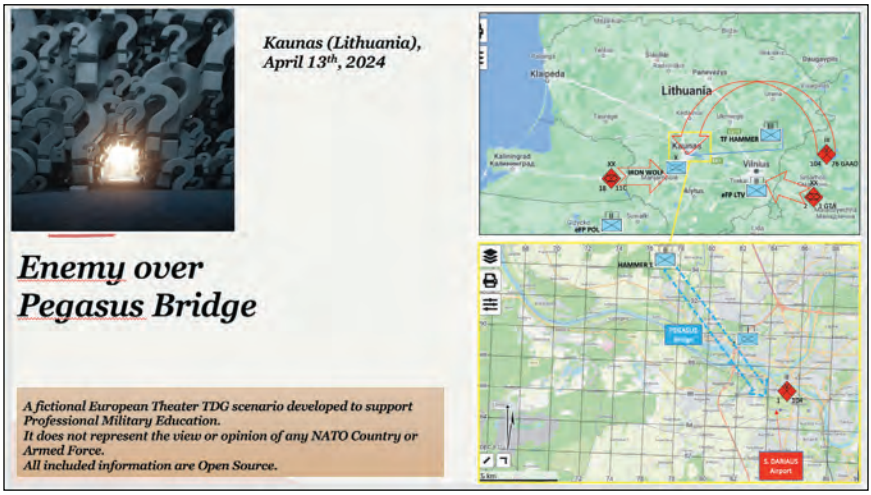
ing rotations to prepare for deployment, and these events require enormous amounts of money, time, personnel, and logistics, whereas allowing participants to conduct a platoon-size operation in a digital wargame like *Combat Mission* is considerably less resource intensive. This is not to say there is no value in conducting field exercises, but rather creating a culture that promotes sets and repetitions of tactical problems much like the tactical decision games (TDG) currently fielded will sharpen the minds of our men and women in uniform.

Bringing TDGs into the twenty-first century involves combining the portfolio of readily available scenarios and COTS wargaming products that have data analytics built in as a feature. The intent is not to change the TDG training from "allowing leaders to work through their decision-making processes (TLPs, MDMP, etc.) and develop a plan" but to augment that same training methodology with digital wargaming that can provide data to support the conversations that typically happen during adjudication and after action review of the TDG.[3] Even senior members of the armed forces may not have direct experience with the types of capabilities and situations currently being presented in PME scenarios at the schoolhouses or being projected/planned for in *Force Design* efforts.

Figure 1 illustrates a typical TDG, where the publication releases a scenario and asks for readers to submit their respective courses of action by mail. Various forms of the TDG methodology have been developed, although they usually focus on either time constraints or live adjudication with the membership. An example is a platoon sergeant getting his or her Marines together to go over a pen-and-paper version of a TDG, and then giving them 15 minutes to formulate a response. This form of facilitation engages the participants' critical decision-making skills with limited infor-

[3] Doug Meyer, "Tactical Decision Games (TDGs): An Introduction," *Company Leader* (blog), accessed 1 May 2024.

Figure 1. An example of a tactical decision game run at Fight Club International set in a fictional conflict



Source: Courtesy of the author.

mation under artificial stress and attempts to improve how they process information.

A trial conducted in late 2023 with a public-facing commercial wargaming community called USA Fight Club exemplified this innovative approach. Led by U.S. Army National Guard captain Colin David, participants worked with a preexisting scenario, developing slide decks for their courses of action, which were subsequently translated into the software for adjudication.

The resulting engagement from participants—viewing a virtual playthrough of their proposed courses of action—immersed them in the wargaming process while reinforcing their training in the profession of arms. The ability to analyze data post-playthrough, coupled with recorded replay videos for after action review purposes, not only provided context regarding the effectiveness of their strategies but also enriched their mental warfighting capabilities.

Envisioning a future where this form of TDG wargaming is implemented at the lowest echelons presents a compelling scenario. Enlisted personnel can engage with officers in a collaborative

training environment that fosters cohesion, attention to detail, and a reinforcement of the planning process. Such a wargaming model also empowers junior enlisted members to understand their critical roles in warrior tasks and battle drills while simultaneously supporting noncommissioned officers (NCOs) in a cooperative environment that emphasizes leadership development.

The feasibility of this model is further supported by the fact that today's generation of servicemembers, having grown up in a technologically driven world, is well-equipped to adapt to these digital platforms. This initiative could be implemented at the company level with minimal investment, leveraging existing technology to create an engaging and impactful training experience. Ultimately, the first step toward achieving a culture shift in wargaming across the Marine Corps involves updating the training methodologies for cadets and junior enlisted personnel.

Now imagine a future five years from now in which this form of TDG wargaming is fielded at the lowest echelon, enabling enlisted personnel to intermix with officers in a form of training that builds cohesion and attention to detail and reinforces the planning process. This form of wargaming can give important context to the junior enlisted about why their role in warrior tasks and battle drills is critical while double tapping the NCO in a cooperative wargaming environment to ensure leadership training is being conducted. The concept is a relatively low-cost solution in an age where the generation signing up to serve have been glued to technology since birth and could easily be reinforced at the company level with a simple laptop and license of the software. The first step toward reaching the culture shift and the application of wargaming across the Marine Corps could be updating the existing training methodology of cadets and the junior enlisted.

Fight Club

Most militaries around the world standardize their physical fitness with training formations before duty Monday through Friday. Phys-

ical fitness is a priority and the baseline expectation of servicemembers to be fit for their job. The United States takes great care to ensure that junior officers and leaders get excellent educational and practical training through Officer Candidates School, Command and Staff College, and beyond. Technologies are rapidly advancing to the point that institutionalizing wargames as homework for cadets, enlisted personnel, and military academics is a reality now. Normalizing serious wargaming as part of the curriculum for our leaders inheriting the responsibility of command while collaborating with thinking, fighting opponents in the civilian talent pool and their peers can only bolster personal development.

The Marine Corps is leading the charge in the United States with the announcement and operation of Microsoft's Azure Cloud environment. This is a virtual machine environment at Marine Corps University with a suite of digital wargames that students, faculty, and civilian personnel can access to conduct sets and repetitions through wargaming in accordance with the Commandant of the Marine Corps' planning guidance.

As Tim Barrick, a retired colonel and wargaming director at Marine Corps University's Krulak Center for Innovation & Future Warfare describes it, "This capability enables individual and head-to-head wargaming options across a wide range of historical and modern scenarios. This creates the opportunity to integrate wargaming to a much higher degree than at any time in the past and will contribute to increased repetitions in tactical, operational, and strategic decision-making."[4] In September 2022, Marine Corps University held its first trial of the capability with the Expeditionary Warfare School at Marine Corps Base Quantico. In this event, 240 students participated in a digital wargame exercise across multiple student groups simultaneously. The game used, *Flashpoint Campaigns: Red Storm*, is a COTS digital wargame that

[4] Brian O'Rourke, "Wargaming at MCU: A Small Step for Marines, a Giant Leap for the Marine Corps," U.S. Naval Institute *Proceedings* 148, no. 11 (November 2022).

Figure 2. Students at the Marine Corps University School of Advanced Warfighting conduct a digital wargame exercise in the Azure Cloud environment using Command Professional Edition

Source: Courtesy of the author.

simulates a fictitious Cold War-gone-hot scenario in the Fulda Gap. The scenario and data sets were custom built by the Marine Corps to model a contemporary problem to better align with the current training and educational objectives of the Marine Corps.

Marine Corps University has hosted several cloud-based wargame tournaments. Users compete as teams and individuals, with collaboration between colleagues in the discussion of tactics, strategic targets, and operational maneuvers taking place. Exposing military personnel to the value and operation of digital wargames is essential to generating discussion on normalizing their use in the PME environment.

"If you are going to win any battle, you must do one thing. You must make the mind run the body. Never let the body tell the mind what to do. . . . the body is never tired if the mind is not tired."[5] This famous quote, attributed to George S. Patton, indicates that the importance of mental and psychological toughness on a sol-

[5] "George S. Patton Jr. Quotes," Military Connection Quotes, accessed 20 April 2023.

dier's capacity to perform well in combat was understood during World War II.

Marine Corps University has the capabilities to drive this innovation by assigning digital wargames as homework. Making it a mandatory elective for part of the curriculum and exposing them to what these games can provide is the first step in fostering a change. Wargaming as homework is not a new concept, as tactical decision games were assigned dating back to before 1800. According to the blog *The Company Leader*, "They have been used throughout history dating back to before the 1800[s]. Most notably, Field Marshall Helmuth von Moltke, Chief of the Prussian General Staff, used them in the mid-to-late 1800s for contingency planning and called them 'tactical assignments'."[6]

On a whiteboard at the 77th Brigade of the British Army is the phrase: "If everybody is thinking alike then somebody isn't thinking." Wargaming has been and always will be about exploring new ideas and seeing if they have merit. History is littered with tales of individuals finding themselves in situations of command rising to the occasion. American Democracy was founded on the idea that freedom of thought should be encouraged and that exploring new ideas together is productive. In March 2020, Fight Club UK was founded "to use COTS computer games to provide its members with an opportunity to hone their skills in a dynamic and adversarial environment. Military professionals must be conditioned to outthink, out maneuver and adapt faster." The organization seeks to "fill what is arguably the greatest deficiency in the training and education of leaders: repeated practice in decision making against a thinking enemy."[7] Fight Club UK aims to bring civilian and military professionals together in an adversarial environment using COTS digital wargames to maintain tactical and operational fitness. Its

[6] "Tactical Decision Games: Your Index for TDGs," *Company Leader* (blog), accessed 1 May 2024.
[7] Oli Elliot, "UK Fight Club, Iron Sharpens Iron," Fight Club International, accessed 1 May 2024.

motto, "Think, Fight, Learn, Repeat," embodies the concept that "iron sharpens iron." It creates an environment in which rank, creed, religion, race, or gender do not matter. The goal is not to win every fight but to make sure that even in defeat members are learning something of value.

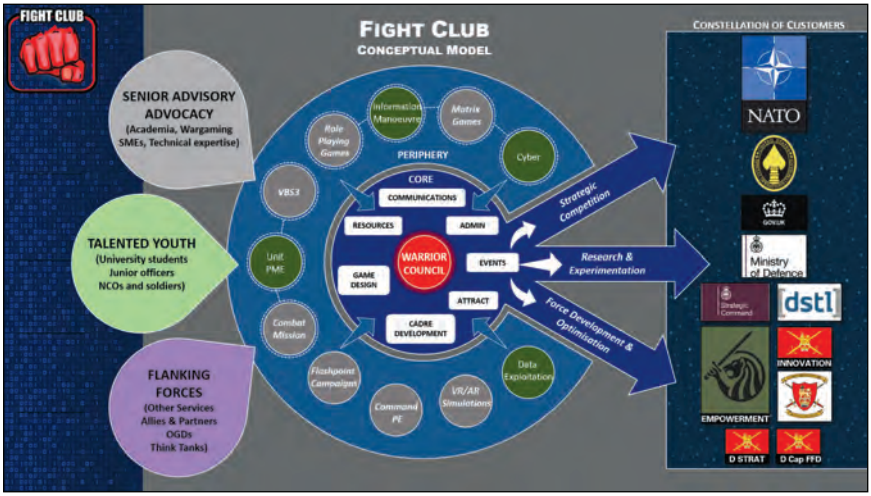
There is much to be gained by cultivating an environment in which an infantry officer plays wargames against a former Air Force officer. Civilian logisticians fighting a command: modern operations scenario against a submarine officer. Transfer of knowledge and crosstraining would occur organically, arming leaders with information about adversary capabilities in an engaging way. Almost everything in the world is done through digital applications these days. Books, newspapers, and magazines are slowly being replaced by ebooks and the internet. The new generation of talent learns through Google and YouTube. As the saying goes: "Adapt and overcome."

Incorporating a similar Fight Club model to that used by the British Ministry of Defence for the U.S. Department of Defense is essential to maintain the technical and adaptive edge over U.S. adversaries. An article from the Modern War Institute at West Point states that a

> Royal Marine major played Combat Mission to explore with greater fidelity what the potential reconnaissance fight in the wargame's scenario would look like. In doing so, the officer illuminated a corps reconnaissance mismatch, which led to necessary changes to the corps plan. The study of war through experiential learning vis-à-vis games is enabling warfighters to become more adaptive.[8]

[8] Nick Moran and Arnel P. David, "Why Gamers Will Win the Next War," Modern Warfare Institute, accessed 1 May 2024.

Figure 3. Fight Club International's conceptual model advocates for a risk-free, rank-free environment where civilian and military professionals can learn and play wargames



Source: Courtesy of Capt Oli Elliott.

Such experiential learning through games empowers warfighters to become more adaptive, reinforcing the need for innovative training solutions that reflect the complexities of modern warfare, and oftentimes digital solutions become necessary.

Digital Wargame Facilitation

When one hears the words *professional wargaming*, they may think of large rooms with gargantuan maps sprawled across them, littered by sheets of numbers, and counters strewn about. The room replicates the chaos of the battlefield in some aspects of organization and requires significant time to set up. It is generally hard to ensure full student participation in tabletop wargames, as billets are filled and inevitably leadership roles take the reins of doing the heavy lifting throughout.

Digital wargaming looks to solve this issue by providing a more efficient solution with less logistical concerns, mitigating the planning process involved in these events. Marine Corps Universi-

ty incorporates the previously mentioned Microsoft Azure Cloud system in its curriculum, with wargames running anywhere from three days to month-long planning exercises. The inclusion of COTS digital wargames with sufficient capabilities in accordance with the training objectives set forth by the Marine Corps means that students have more time for their academic studies, while ensuring they have the resources available to them to participate in wargaming at any moment or location.

One example of civilian-military collaboration in digital wargames at Marine Corps University is the introduction of "wargame technicians." These are civilian contractors who have an array of knowledge and skill sets across not only digital wargames but also tabletop wargames, event organization, training/tutorial documentation, and intelligence, surveillance, reconnaissance/after action review/course of action product development for the operational planning teams they support. These civilian contractors provide the heavy lift support previously given to the military faculty as tasks, allowing for more time and preparation to exceed training objectives.

A key consideration when choosing wargame opportunities for students at Marine Corps University comes down to time and scheduling conflicts. Previously, without the cloud gaming capability the students would be allotted limited time to conduct wargames either for tactical/strategic fitness or for case studies. Three to four turns before the exercise culminates appeared to be the average after weeks of course of action development and planning. A valid concern one might have is whether the students met their training criteria. Did they get an opportunity to fight their plan, or were they simply going through the motions to check the box?

Shifting the mindset toward incorporating digital wargames into PME ensures that students are given adequate exposure to the capabilities the cloud environment possesses. The digital library has a wide range of games covering different time periods to make it possible for the students to fight against an artificial intel-

Figure 4. *Operational Art of War IV* being used by Marine Corps University as part of its program of professional military education

Source: Courtesy of Capt Oli Elliott.

ligence or human opponent in the exact battles and case studies they learn about in their academic requirements. It is one thing to read about why the Gothic Line was a difficult operation, and another to play a scenario allowing the students to not only fight the same plan to contextualize what they are learning about but also explore different approaches to compare results.

For the more serious wargames there is a challenge. Titles such as *Command: Modern Operations* and *Flashpoint Campaigns: Red Storm* require a serious time investment to effectively play. Serious wargames come with serious time commitments to understand the rule sets, and that has not changed from tabletop wargames. Colonel Eric M. Walters offers a logical solution in the *Journal of Advanced Military Studies*: "There is no easy remedy for this issue; however, the gain in educational effectiveness is worth the cost of time invested. The best way to economize on the time requirement is to again have an expert wargamer/educator—one who knows the game used—to team teach it with an instructor

who does not but is motivated to learn."[9] Helping to change the culture and drive more efficient education, MCU tasked its wargame technicians with conducting multiple training sessions with groups of students and faculty for the more serious wargame titles.

The sessions are broken down into two-hour periods of instruction throughout the year focusing on everything from the basics of user interface familiarization to advanced mission creation in *Command: Modern Operations*. Having a well-trained, knowledgeable faculty who can operate and teach the wargames to students is mission-critical to solidifying the digital wargaming culture within the armed forces. Once the faculty understands all the capabilities at their disposal, they can start to create more complex problems for students to solve, driving leaders to uncomfortable positions and encouraging them to think outside the box.

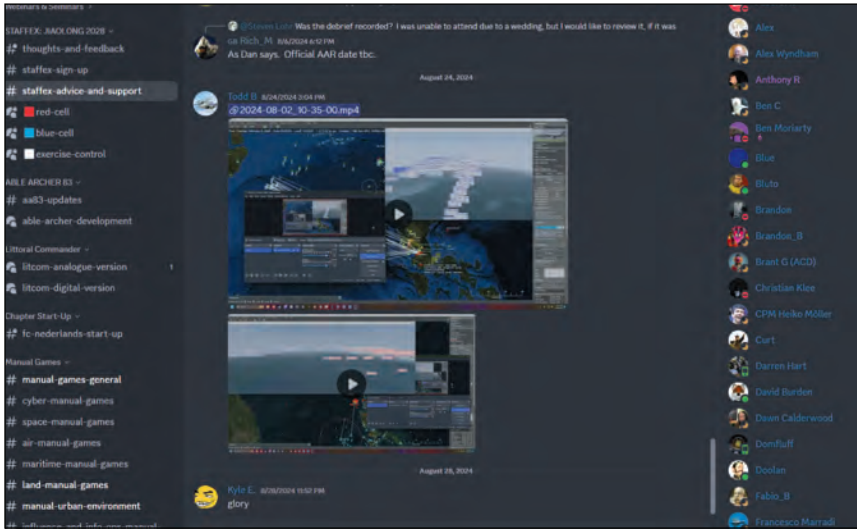
Developing a core program to educate and train incoming faculty members on the wargaming capabilities at Marine Corps University is a critical and essential component to scalability and protecting the integrity of wargaming as a planning tool in the eyes of military professionals. The Marine Corps is on the right track and can hopefully stay on course to provide an invaluable capability to servicemembers, regardless of location or billet.

Wargaming with Adversaries

This last concept is inspired by recent discussions on the vulnerabilities of information environments, particularly considering historical trends in wargaming and its applications in military education. By capitalizing on the wargaming community's willingness to engage, the United States can better mask its information environment while gaining valuable insights into adversarial thought processes and operational strategies within digital-based wargames through social media platforms such as Discord.

[9] Col Eric M. Walters, "Wargaming in Professional Military Education: Challenges and Solutions," *Journal of Advanced Military Studies* 12, no. 2 (Fall 2021): 81–114, https://doi.org/10.21140/mcuj.20211202003.

Figure 5. A screenshot from the Discord group for Fight Club International shows how players use the Discord app for open-source communication and facilitation of educational wargaming

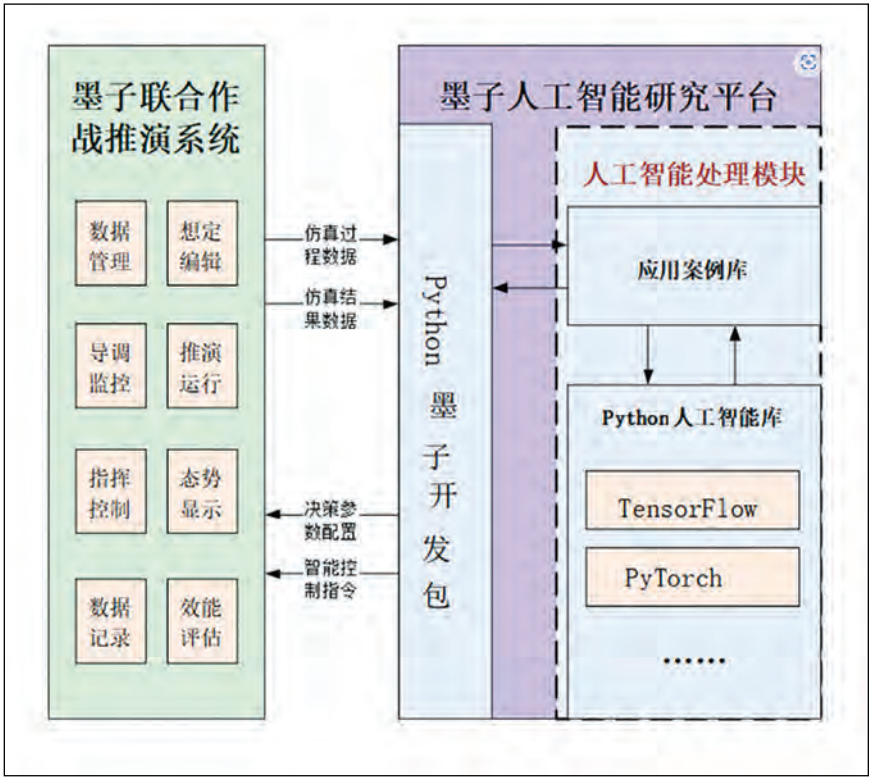


Source: Courtesy of the author.

A notable example of digital gaming contributing to leaks lies within the online community, particularly regarding the popular game *War Thunder*. This platform is well-known for its dedicated military enthusiast community, some members of which have been implicated in illegal activities, including the unauthorized posting of classified technical manuals related to military equipment from across multiple nations. The enthusiasm surrounding the game often blinds participants to the long-term consequences of leaking sensitive information, as highlighted by reports of military documents being shared in online forums.

Matrix Games' *Command: Modern Operations*, a commercial iteration of their widely used professional software, *Command: Professional Edition*, is employed by various NATO allies and partners for analytical and educational purposes. It is noteworthy that Chinese military professionals (Huashu Defence) have obtained an outdated yet functional version of this software. Furthermore,

Figure 6. Chinese defense company Huashu Defense's strategy and battle simulation software, Mozi Joint Operations Deduction System, is an AI-assisted, human-in-the-loop deduction system for multidomain joint operations that can support combat scenarios from the tactical to the campaign level

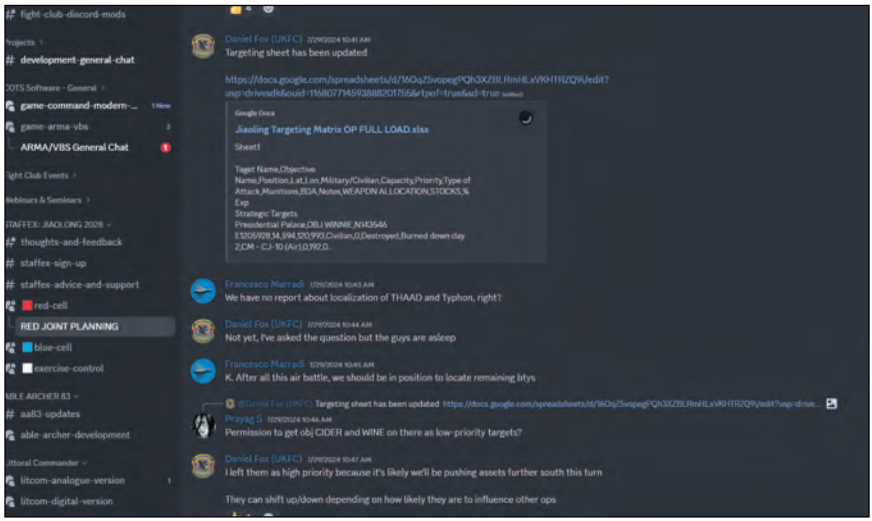


Source: Courtesy of the author.

Chinese commercial game users frequently post scenarios in Chinese on public-facing scenario depots. While many of these scenarios may lack significance, some exhibit alarming similarities to U.S. Navy order of battle documents concerning the People's Republic of China.

Given the awareness that adversaries are actively monitoring U.S. activities, it becomes a question of whether to create open opportunities within virtual platforms for wargaming. By establishing digital wargames on social platforms like Discord, planning

Figure 7. Open-source data collection via the method of digital wargaming is both a risk and an opportunity within the right parameters

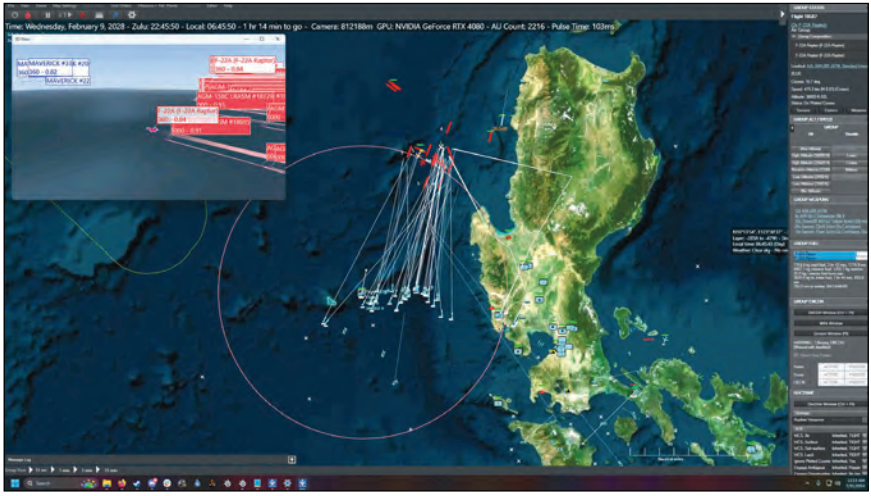


Source: Courtesy of the author.

products, thought processes, and decisions can be analyzed from a diverse array of users. These platforms can serve as arenas for collaborative scenario development and strategic discussion, fostering a culture of shared knowledge and innovation. Moreover, such openness can dilute the impact of adversarial surveillance, as the sheer volume of legitimate interactions may obscure and complicate their ability to extract valuable intelligence. By embracing realistic opposing force or Joint Force wargaming in public-facing online wargames, we not only strengthen our community but also reinforce our defensive posture against potential threats.

The idea represents a transformative approach to using digital wargaming as a tool in the broader military and intelligence context. By strategically leveraging commercially available software and the insights of foreign nationals, this implementation aims to enhance U.S. capabilities in countering adversarial operations. A careful and ethical implementation of this strategy will be crucial in maintaining national security while navigating the complexities of modern wargaming in the coming years.

Figure 8. Digital wargaming tools with data extraction and after action review capabilities enhance the amount of information that can be passively collected through iterative wargames throughout the academic year



Source: Courtesy of the author.

In conclusion, digital wargaming offers a platform that serves diverse purposes, ranging from PME and analytical assessments to training and open-source intelligence collection. By harnessing these virtual environments, we can enhance strategic thinking, facilitate collaboration among military and civilian participants, and foster an innovative approach to problem-solving. Additionally, by promoting online wargaming, we create opportunities for valuable insights while simultaneously diluting adversarial surveillance efforts. Embracing the potential of digital wargaming not only strengthens our operational capabilities but also positions us to proactively address the complexities of modern warfare and intelligence gathering.

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Dr. James "Pigeon" Fielder joined Colorado State University as an instructor after retiring from the U.S. Air Force as a lieutenant colonel and associate professor of political science at the U.S. Air Force Academy. He is also the director of professional and educational games for Mobius Worlds Publishing and consults on organizational wargaming, crisis response exercises, and scenar-

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Dr. Ryan Grauer is an associate professor of international affairs in the Graduate School of Public and International Affairs at the University of Pittsburgh. He specializes in the study of the creation and use of military power in the international system, with an emphasis on organizational drivers of capability. He is the author of *Commanding Military Power* (2016) and the coeditor of *Understanding Battlefield Coalitions* (2023). His other work can be found in the *European Journal of International Relations*, the *Journal of Global Security Studies*, the *Journal of Strategic Studies*, and the *Journal of Security Studies* and *Global Politics* among other places. He received his PhD from the University of Pennsylvania and has been a fellow in the Modern War Institute at the U.S. Military Academy at West Point and a visiting scholar at Nuffield College at Oxford University.

Dr. Kelly A. Grieco is a senior fellow with the Reimagining U.S. Grand Strategy Program at the Stimson Center. She is also an adjunct professor at the Center for Security Studies at Georgetown

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Dr. Sidharth Kaushal is senior research fellow for seapower at the Royal United Services Institute for Defence and Security Studies in London. His work at the institute examines the evolving character of warfare at sea and the ways in which both technology and evolving concepts of operations are shaping the character of naval operations. Kaushal has led a number of studies for the Royal Navy and Royal Marines over the years examining various aspects of their future force designs. He has also supported work conducted by the UK Ministry of Defence on the subject of multidomain integration and has supported assessments on the conventional balance of power in Europe. In addition to his work for his own government, Kaushal has conducted work for several other European ministries of defense on subjects including the balance of power in the High North. Sidharth holds a doctorate from the London School of Economics, where his work examined how strategic culture shapes a nation's grand strategy.

Lieutenant Colonel Brian Kerg is a prior-enlisted mortarman, communications officer, operational planner, and a nonresident

fellow with the Atlantic Council's Indo-Pacific Security Initiative. He held previous fellowships with the Pacific Forum, Marine Corps University's Brute Krulak Center for Innovation & Future Warfare, the College of William and Mary's Project for International Peace and Security, and Key Terrain Cyber. He writes extensively on strategy and security and has published with the Atlantic Council, *War on the Rocks*, U.S. Naval Institute *Proceedings*, *Marine Corps Gazette*, *The Strategy Bridge*, CIMSEC, *SIGNAL* magazine, and other publications. His fiction has appeared in *The Iowa Review, Line of Advance, The Deadly Writers Patrol, Proceedings*, and *The Report*, among other journals' short story collections. He was the U.S. Marine Corps' 2021 Expeditionary Warfare Officer of the Year and the 2021 U.S. Naval Institute *Proceedings* Author of the Year. He is currently serving as the G-5 director of plans, III Marine Expeditionary Force, in Okinawa, Japan.

Lieutenant Colonel Kurtis Kjobech is a U.S. Marine Corps officer who has served at echelons throughout the ground combat element and the intelligence enterprise. As a young officer from 2004 to 2011, he had multiple Middle East combat deployments, including as an intelligence officer for both 1st Battalion, 7th Marine Regiment, in Iraq and 2d Battalion, 6th Marine Regiment, in Afghanistan; a combat advisor to 3d Battalion, 2d Brigade, 7th Iraqi Army Division; and as a liaison officer from the Marine Corps Intelligence Activity to the Special Purpose Marine Air-Ground Task Force–Afghanistan. He served at various staff echelons, from the Marine Corps Intelligence Activity to Marine Forces Special Operations Command to 3d Intelligence Battalion. More recently, he has operated in the Marine Corps training and education realms, serving in the Marine Corps Tactics and Operations Group and at Marine Corps University.

Drake Long is a nonresident fellow with the Brute Krulak Center for Innovation & Future Warfare at Marine Corps University.

He is also a Pacific Forum young leader and a frequent writer on U.S.-Southeast Asia relations and the Law of the Sea, and has been published in *The Diplomat* magazine, 9DASHLINE, *1945* magazine, and the Center for International Maritime Security. He is a coauthor of the edited volume *Maritime Cooperation and Security in the Indo-Pacific: Essays in Honour of Sam Bateman* (2022) and is currently writing a book on international seabed issues and undersea resources. He received his bachelor of arts in diplomatic studies from Miami University, Ohio, and his master's in conflict studies from Georgetown University.

Preston McLaughlin is a retired Marine colonel who helped stand up the Fleet Antiterrorism Security Team Company, and Marine Corps Security Force Regiment. He has served with G-3, III Marine Expeditionary Force; G-3, Marine Forces Pacific; and as faculty advisor, course director, and lecturer at the Amphibious Warfare School, Marine Corps University. He was the commanding officer of Combat Assault Battalion, 3d Marine Division, and commanding officer of the Marine Corps Security Force Regiment. His last active-duty assignment was as chief of staff, 2d Marine Expeditionary Brigade-Afghanistan. After retirement, he served in industry at the Defense Advanced Research Projects Agency's Intelligence and Security Directorate for four years. He has also been part of the faculty at the Citadel, Daniel Morgan Graduate School, U.S. Army War College, and Texas A&M University. He is also affiliated with the Irregular Warfare Center. He is a combat veteran of Operations Desert Shield/Desert Storm and Operation Enduring Freedom. He holds a master's in military studies from Marine Corps University, a masters in strategic studies from the U.S. Army War College, and a master's in American history from George Mason University. He is a Joint qualified officer with duty at the Joint Warfighting Center, Suffolk, Virgina, and a graduate of the Joint Forces Staff College's Joint and Combined Warfighting School, Joint Professional Military Education II.

Lieutenant Colonel Zach Ota is an infantry officer and an international affairs officer in the U.S. Marine Corps. He earned bachelor's degrees in history and political science from the University of Hawai'i at Mānoa and earned a master's degree in national security affairs from the Naval Postgraduate School. Lieutenant Colonel Ota has served on combat deployments to Iraq and Afghanistan, deployments throughout the Indo-Pacific, at sea, and with allies and partners around the globe. His research interests include maritime security, military history, the integration of allies and partners in military operations, and civil-military cooperation across the spectrum of conflict.

Colonel Arun Shankar currently serves as the J36 division chief, U.S. Space Command. He has served in various command and support roles throughout his 22-year career as a Marine Corps communications officer. As a lieutenant, he served as the S-6 platoon commander for 3d Marine Regiment. As a captain, he spent 28 months supporting Operation Iraqi Freedom and Operation Enduring Freedom across various billets. As a major, he served in three years of company command across 1st Marine Logistics Group and 1st Marine Division. As a lieutenant colonel, Shankar served as the assistant chief of staff, G-6, of 1st Marine Division, and the commanding officer of Communication Training Battalion. Additionally, Colonel Shankar holds a PhD in operations research from George Mason University.

Dr. Joanna Siekiera is an international lawyer, doctor of public policy, and an assistant professor at the War Studies University in Warsaw, Poland, and a fellow at Marine Corps University in Quantico, Virginia. She supports various military institutions, primarily NATO, as a legal advisor, consultant, course facilitator, and book editor. Dr. Siekiera has been cooperating with the NATO Stability Policing Center of Excellence since 2021. She did her postdoctoral

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Lieutenant Colonel Leo Spaeder, U.S. Marine Corps, is a graduate of the Wharton School of Business at the University of Pennsylvania (bachelor of economics), Villanova University (master of political science), Marine Corps University (a master of operational studies), and the Naval Postgraduate School (master of systems analysis). He holds military specialties in logistics, operational planning, systems analysis, and red teaming and is currently the commanding officer of 12th Littoral Logistics Battalion in Okinawa, Japan. During previous assignments at Combat Development and Integration Department, Headquarters Marine Corps, he focused on future-oriented scenario and concept development for military force design applications, distilling high-level Department of Defense policy guidance and emerging geopolitical and technological trends into usable scenarios for force developers to test and refine potential military capabilities against a range of possible futures. He is one of the founding action officers of the Joint Force Operating Scenario series, which was selected for the 2019 Integrated Naval Force Structure Assessment by the secretary of the Navy and the 2021 Joint Staff Globally Integrated Wargame and remains the testbed for Marine Corps force design changes.

Kevin Williamson is a wargame thought leader with a background in Army logistics before returning to service as a gunner's mate with the U.S. Navy Reserves. When he left the U.S. Navy, he pursued a position with Matrix Pro Sims, supporting Marine Corps

University's professional military education through the wargaming department and serving as a wargame subject matter expert. Additionally, he holds several wargaming and defense-related positions. He is a wargaming program development director at USA Fight Club and is executive director of his own organization, Near Peer Simulations, which serves as a free, virtual alternative to broaden wargaming exposure. He regularly contributes his time and expertise to get wargaming off the ground with various organizations. His work includes pioneering the Interactive Tactical Decision Game concept, which pairs traditional TDG scenarios with data-informed commercial off the shelf wargaming products, exploration into offensive wargaming concepts as well as generative AI and large language model integration into professional military education wargames to serve as a next generation battle buddy. Williamson has also worked with the Center for Strategic and International Studies and George Washington University's Elliott School of International Affairs and has presented to Connections US, Georgetown University Wargaming Society.

Dr. Rosella Cappella Zielinski is an associate professor of political science at Boston University and a nonresident fellow at the Brute Krulak Center for Innovation & Future Warfare at Marine Corps University. She specializes in the study of political economy of security with an emphasis on how states mobilize their resources for war and how wartime coalition members organize their economic needs as well as on the battlefield. She is the author of *How States Pay for Wars* (2016) and is coeditor of *Understanding Battlefield Coalitions* (2023). *How States Pay for Wars* is the winner of the 2017 American Political Science Association Robert L. Jervis and Paul W. Schroeder Best Book Award in International History and Politics. Her other work can be found in the *Journal of Peace Research, Conflict Management and Peace Science, Journal of Strategic Studies, Security Studies, European Journal of International Relations, Journal of Global Security Studies*, as well as *Foreign Affairs, Texas National*

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