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The MajGen Harold W. Chase Prize Essay Contest

Submit entries anytime from 1 January to 30 April. See p. 91 for instructions.



The writing contest is open to active duty Marines and members of the Marine Corps Reserve.





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JANUARY 2021

Editorial: Special Operations Forces and the Marine Corps

On behalf of the Corps' Professional Association, I hope everyone has recovered from their holiday celebrations and is prepared for whatever the new year brings. As in the past three years, our January edition focuses on Special Operations and Marine Corps Special Operations Forces. Beginning on page 27 with an introductory letter from the Commander of MARSOC, MajGen James F. Glynn, we present a series of eight articles on a range of special operations-related topics. In addition to our cover article, "Intelligence-Driven Operations" by the Marines of Intelligence Co., 1st Marine Raider Support Bn, several other articles are noteworthy in their focus on "relationships" between MARSOC and various elements of the Joint Force. The relationship between SOF and the conventional Marine Corps is the focus of "Avoiding the False Choice" by Maj Joshua C. Waddell and Maj Brent C. Birchum on page 33. MARSOC's relationship with naval expeditionary forces is explored on page 38 in "Green Water SOF" by Maj William H. Strom and on page 59 in "SOF and the ARG/MEU" by Maj Michael Stevens. SOF lessons applicable to Marine Corps Talent Management are presented on page 57 in "We Are Not Inventory" by LtCol Gregory DeMarco. Once again, a special thanks to MajGen Glynn and LtCol Tony "Bull" Marro, USMC(Ret), for personally ensuring MARSOC's content for this edition of the Gazette was "on time and on target."

Of note this month, on page 5, we publish a letter from SgtMaj Troy E. Black, the 19th Sergeant Major of the Marine Corps, in which the Corps most senior enlisted leader lays out the "SMMC 'Non-Negotiables'" of success for individual Marines and the Corps.

As our cover highlights, this month's edition also presents the winner of the 2020 LtGen Bernard E. "Mick" Trainor Military Writing Award: "Sleeper Cell Logistics" by Capt Michael Sweeney on page 64. We are also proud to present a group of outstanding essays submitted for the contest including the Honorable Mention on page 67, "A Letter Home from a Marine in the Future" by LtCol Neal K. McCarthy, and "Between a Rocket and a Hard Place" on page 74 by Dr. Heather Venable and LtCol Nate Lauterbach.

We also continue to present articles in our Strategy & Policy Ideas & Issues series as well as the latest installment of the Maneuverist Papers. In Maneuverist #5 "Learning for the Germans Part II: The Future" on page 92, "Marinus" continues to examine the importance of the German military tradition in the development and application of Maneuver Warfare in the Marine Corps while addressing the "elephant in the room:" learning from the Germans while recognizing the indefensible atrocities of Nazi Germany in World War II.

Finally, as we look forward to potential obstacles and opportunities in the coming year, this winter we should all look back on the recent 70th anniversary of the 1st Marine Division's heroic breakout from the Chosin Reservoir during the Korean War and the upcoming 30th anniversary of Operation DESERT STORM. Those Marines faced challenges and took chances with tenacity and daring just as Marines do today. Then as now, the Association remains dedicated to their professional development, and the *Gazette* remains the platform for the free exchange of ideas in our Corps, giving voice to the dedicated Marines who use their personal time and effort to contribute to the robust intellectual life of the Corps.

Christopher Woodbridge

MCA&F President and CEO, LtGen W. Mark Faulkner, USMC(Ret); Chief Operating Officer, Col Dan O'Brien, USMC(Ret); Director Foundation Operations, Col Tim Mundy, USMC(Ret); Director of Strategic Communications & Editor, Leatherneck magazine, Col Mary H. Reinwald, USMC(Ret); Member Services, Jaclyn Baird; Chief Financial Officer, Johnna Ebel.

SMMC "NON-NEGOTIABLES"

by SgtMaj Troy E. Black, 19th SMMC

he United States Marine Corps has a long and illustrious history of success on the battlefield. We are unique in the way we train and fight. Our culture is one of competing and winning with a time-tested tradition of evolving to adapt to the current and future warfighting environment.

The Marine Corps is always evolving, but the foundation of who we are never changes. We have constantly reinforced the basics throughout our history. We know that in every battle and skirmish, the ingenuity, leadership, and ability of Marines wins the day. New weapons, new equipment, and new tactics have always been a part of how we fight new enemies in new environments, but the adaptability and strength of the individual Marine remains at our core. This is a valuable point when considering how we prepare the next generation of Marines for the next battle. To remain a certain force for an uncertain world, our tolerance for change must increase, but we must never accept mediocrity or the lowering of our standards. We are all standing beside one another on the front lines of the future, to be "the most ready, when the Nation is least ready.²



Sergeant Major of the Marine Corps Troy E. Black.

Our Commandant has laid out in his planning guidance his vision for the future of the Marine Corps. In it, he outlines our priorities as a Naval Expeditionary Force, the need to adapt to constantly evolving and complex warfighting domains, the perils of failing to outpace a peer threat, and the increasing reliance on the critical thinking abilities of the individual Marine.

As the Marine Corps evolves to meet this mission, there are some aspects that must never change. I call these simply "Non-Negotiables."

The following eight "Non-Negotiables" are fundamental to our identity and success as Marines, regardless of the battles being fought or the generation of Marines fighting them. Within them, there can be much debate, but in general, they are time proven and lay at the heart of being a Marine.

> 1. Core Values. This is our foundation. They exist in order to make us better citizens, better leaders, and better warfighters. Our Core Values give us something to aspire to as men and women of honor. When we enter into uncertainty, it is Honor, Courage, and Commitment that carry us through to victory. It is on these insoluble elements that all other "Non-Negotiables" are built.

2. Discipline and Good Order. Discipline and good order are the hallmarks of a Marine. At its core, discipline is about self-control and a willingness to do the right things in the right ways for the right reasons for organizational success. Discipline is also the instant and willing obedience to lawful orders, respect for authority, and respect for each other. Living a disciplined life is what all Marines must strive to do. We cannot simply choose what orders to follow and which to disobey. Discipline is behind

the unrelenting drive for perfection described in the NCO and SNCO Creeds. This discipline applies to seniors and subordinates. It applies to everything from uniform regulations to rules of engagement. From the moment we arrive on the yellow footprints or at OCS, we strive to develop in each and every Marine the commitment to live up to our Core Values. This takes discipline, and the result is good order.

3. Professional Military Education (PME) and Professional and Personal Development. There is a difference between the three. PME develops understanding of the functions of our Marine Corps. Warfighting, ethics, and critical thinking skills are all honed within PME, regardless of an individual's military occupational specialty or their unit's mission. Professional development is where we learn our craft and refers to those core elements associated with our service that apply to all Marines. Strenuous and demanding professional development schools, courses, and evaluations are the bedrock of our winning culture. Personal development refers to the education opportunities that exist through tuition assistance and other means. Each Marine should strive to accomplish excellence in all these areas. Off-duty education and other vocational programs that help to develop cognitive skills and problemsolving capabilities are vital to developing enlisted Marines to operate in a competitive environment. There is no doubt the combination of PME focused on warfighting and Marine Corps common skills combined with the individual pursuit of higher education and advanced vocational certification makes the Marine Corps a more lethal and capable fighting force.

4. Physicality and Expeditionary Mindset. Those who have been in combat know it is a physically and mentally demanding environment. We know physical fitness has bearing on a leader's ability to sustain their presence of mind during periods of extreme stress. To ensure we are able to keep a clear head during combat, we must demand the highest standard of fitness from ourselves and our subordinates. This focus on fitness leads to a competitiveness that fuels the winning nature of Marines. Fitness includes more than just the physical aspects. Physical, mental, and spiritual fitness all combine to form total fitness. These elements of fitness allow Marines to persevere in any clime and place. Developing perseverance is key to success on the battlefield and in truly mastering the ability to operate in expeditionary environments. The past has shown us we can expect to operate from locations where the most meager of infrastructure exists. We must prepare every day to be fit of mind, body, and soul.

5. Training for the Purpose of Warfighting. As Marines, we fight, and we win. To be "the most ready when the Nation is least ready" is the purpose of everything we do. In order to achieve this, we must be prepared to conduct combat operations at any time in any place. Our core belief that "every Marine is a rifleman" is central to our identity and key to our ability to accomplish this mission. Utilizing available time and resources on training that is realistic and demanding while remaining focused on warfighting must remain a priority. In short, we train hard to affect real outcomes in combat. We train as we fight, and we fight to win.

6. History, Tradition, and Protocol. Starting with initial training, every Marine is indoctrinated in the Corps' rich history. By constantly reinforcing and reminding Marines of that legacy, we sustain the transformation from civilian to recruit and from recruit to Marine. As Marines, we do not earn the Eagle, Globe, and Anchor, but the right to wear it. With the right to be called Marine comes the responsibility to live up to the history set down by those who came before

us. These traditions include seemingly minor things like the celebration of our birthday, the use of naval terminology, our manner of dress, our pride in physical conditioning, pride in our uniforms, pride in grooming and personal appearance, standing when a senior officer enters the room, saluting, administrative accuracy, and simply being respectful. Having respect for our Nation, the civilians we serve, and to each other are essential to our existence and as a Corps. Being a Marine means setting the standard, and we must never diminish the importance of who we are, what we stand for, and the rigorous military bearing that makes the Marine Corps the world's finest fighting force.

7. Leadership and Leadership Development. Developing, sustaining, and expanding the leadership skills of subordinates is the responsibility of each and every leader. There is no greater responsibility or better use of our experience. Consistent mentorship, coaching, teaching, and training is critical to developing the next generation of leaders. Our leadership principles and traits are time tested. The best leaders are those who are bold, take initiative, display fearlessness, have the ability to inspire others, and are worthy of emulation. Inspiration and emulation are two key elements that appear in both the NCO and SNCO creeds. The duty of every Marine, from one generation to the next, is to mentor subordinates. By passing on our knowledge, skills, and experience, we are ensuring that hard won lessons learned in combat are being passed to the next generation of battlefield leadership.

8. Drill and Ceremony. Drill is more than just a show piece. Success in nearly every element of combat can still find a correlation with proficiency in drill. Seemingly routine tasks such as pre-combat inspections, pre-combat checks, first aid, and CBRN responses are learned behaviors that cannot be taught at the time of incident. The precision and attention to detail that drill and ceremony demands directly contribute to success on the battlefield.

General Carl E. Mundy Jr. said it best when he published *Leading Marines* in 1995: "Our actions as Marines every day must embody the legacy of those who went before us. Their memorial to us—their teaching, compassion, courage, sacrifices, optimism, humor, humility, commitment, perseverance, love, guts, and glory—is the pattern for our daily lives."

man E. Black

Semper Fidelis, TROY E. BLACK 19th Sergeant Major of the Marine Corps



1stLt Matthew Beattie-Callahan





Maj Leo Spaeder



Capt James L. Johnsen, USMCR

The 2020 Kiser Family Warfare Essay Contest

The *Gazette* is proud to announce the winners of the 2020 Kiser Family Irregular Warfare Essay Contest. This writing contest was presented in collaboration with the Brute Krulak Center for Innovation and Creativity and made possible through the personal interest and generosity of Mr. John Kiser and the William and Mary Grieve Foundation.

The 2020 theme was "The Future of Civil-Military Operations and Civil Affairs Marines." Competitive authors were asked to address the following questions: "As our Service implements a historic effort to modernize the Marine Corps for the era of great power competition, how should it plan and execute Civil-Military Operations across the competition and conflict continuum? What relevant lessons should the Corps sustain from almost two decades of war among the people to prepare commanders and posture our Civil Affairs Marines to inform, influence, shape and gain access to the cognitive civil environment in support of a naval campaign against a peer adversary?"

The first place winner is 1stLt Matthew Beattie-Callahan, for his essay "Closing the Gray Zone Gap: Future Marine Corps Civil-Military Operations in the South China Sea." Second place goes to Capt Wayland J. Blue, for the essay "Preparing for War among the People in the Indo-Pacific." Maj Leo Spaeder's essay, "Canary in the Coalmine: Civil Affairs as Augur of Force Design 2030," was awarded Third Place. Finally, an Honorable Mention is presented to Capt James L. Johnsen, USMCR, for "The 'One Love' Approach to Expeditionary Advance Base Operations: Learning to Use Civil Affairs for Sea Control from the Jamaican Coast Guard."

Readers may look forward to publication of the winning articles as early as the February edition of the *Gazette*.

LtGen Anthony Lukeman Passes

Anthony Lukeman, a retired lieutenant general who was the driving force behind the modernization of the Marine Corps Association during his decade-long tenure as executive director, died on 11 November 2020, at the age of 87.

LtGen Lukeman came to the MCA in 1989 and was responsible for leading efforts to computerize the association. He also took an active role in *Leatherneck* and *Marine Corps Gazette*, reading every word in the magazines before they were published each month. "I was thrilled to be in the company of writers. There is nothing more important than informing Marines," said LtGen Lukeman.

Before LtGen Lukeman took the helm of MCA, he served for 35 years in the Marine Corps. He was commissioned a second lieutenant after his 1954 graduation from Dartmouth College. He later earned a master's degree in business administration from George Washington University, and he is a graduate of Marine Corps Command and Staff College and the National War College.

He served in all three active Marine Divisions and commanded infantry Marines at the platoon, company, battalion, and regimental level. He served tours in Vietnam with 3rd Marine Division in 1966 and 1967 and with the Vietnamese Marine Corps in 1974 and 1975. He helped plan and execute the evacuation of U.S. and Vietnamese citizens from Saigon in 1975.

Other assignments included Director of the Manpower Plans and Policy Division, Headquarters Marine Corps; Commanding General, Marine Corps Base Camp Pendleton; CG, Marine Corps Recruit Depot/Western Recruiting Region, San Diego; and Deputy Assistant Secretary of Defense (Military Manpower and Personnel Policy).



LtGen Anthony Lukeman, USMC(Ret). (Credit: History Division.)

His awards include the Defense Distinguished Service Medal; Bronze Star with combat "V"; the Meritorious Service Medal with two gold stars in lieu of a second and third award; and Joint Service Commendation Medal.

When LtGen Lukeman retired from the MCA in 1998, he was honored by the staff of *Marine Corps Gazette* with a bronze plaque of his final editorial for the magazine. The plaque read: "In appreciation for the 115 issues that you so diligently proofread. We thought it only appropriate to return the favor—we could find no errors in this editorial."

LtGen Lukeman later said, "the two magazines were the most important part of my job. You could be 22 or 90 years old, they bound the generations of Marines. That's what makes us a special breed."

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Maneuverist Papers

It was interesting to learn the value of studying the German war experience has been questioned and its role in warfighting education diminished. This is certainly evident in a review of the current Commandant's Professional Reading List. The Marine Corps professional philosophy-embracing the importance of study as vehicle through which to improve through the experiences of others-is a Prussian, and therefore German, construct. Scharnhorst and Clausewitz made study a centerpiece as they collaborated in the wake of the Napoleonic wars to professionalize the Prussian military. The Germans were Western pioneers in the concepts of maneuver warfare in two world wars as they struggled to overcome the primary operational feature of 20th century warfighting, the defense in depth.

Previous articles by Marinus asserted the theory of maneuver warfare addresses the timeless nature of war. Changes to the character of war follow changes in technology. Not only can we learn of war's nature from the Germans, the German development of combined arms through the employment of armor and attack aircraft in the early days of World War II provides insight on innovation and the challenges of rapid institutional change. With the exception of ethics, the nature of war and innovation are arguably the two most critical pillars of study for any military professional. There is plenty of both to glean from the Germans.

As Marinus noted, there is more worthwhile material to study than any Marine has the time to read and consider. This is why guided professional education is critical. Guided education provides shortcuts, sorts the wheat from the chaff, and identifies quality material to those seeking improvement. This is why formal schools exist and is the intent behind the Commandant's Professional Reading List. Harvard Business School recognizes the importance of guided study in their case study approach. Perhaps investment to develop a library of Marine Corps case studies as an addition to what is offered through formal PME and the Commandant's reading list is warranted. A robust library of case studies addressing the broad spectrum of conflict could act as a learning rapid accelerant when time is the limiting factor.

Alex Vohr

"Winning Battles Will Not Be Enough in a Great Power Conflict"

A quick salute to Col Tom Greenwood for his November 2020 article, "Winning Battles Will Not Be Enough in a Great Power Conflict." It is thoughtful and provocative, telling us things we need to keep in mind but do not always. The notes offer a superb guide for further exploration. Col Greenwood is continuing in the tradition of service by his father, Col John Greenwood, editor of the *Gazette* for twenty years (1980–2000). Col John kept the door open wide for provocative ideas. It was always open even for young whippersnappers, as I learned first hand. This was true even when he disagreed with those ideas.

Col Nick Reynolds, USMCR(Ret)

Letter Removed at the Author's Request

Response to "Let Boyd Speak" Nov 20

Maj Kerg's article offers great perspective on FMFM 1/MCDP 1 and the doctrine of maneuver warfare in general. If there was anyone who answers the question, "what is maneuver warfare?" I think Maj Kerg has gone a long way in doing so. He decouples the discussion from the German experience, which-while a singular example of maneuver warfare in action-has problems as well. He moves the discussion away from mission type orders as a leadership approach some have conflated with maneuver warfare doctrine and point to as a "say-do gap." He also steers the discussion clear of controversial attrition versus non-attrition warfare. All this is really good.

I thought his insights into how doctrine can be watered down as it goes through editing and review was spot on. He only missed one piece: he describes the OODA loop as a "cognitive decision making model." I had always thought the same. Recently though, I have recognized in labeling it as such, we miss the the "act" part of the model. It is one thing to make a decision, but it is quite another to act on that decision—perhaps to have to force action against institutional inertia. Calling the OODA loop a decision cycle and neglecting action is a mistake.

Alex Vohr

Letters of professional interest on any topic are welcomed by the *Gazette*. They should not exceed 300 words and should be DOUBLE SPACED. Letters may be e-mailed to gazette@mca-marines.org. Written letters are generally published 3 months after the article appeared.

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Channeling Realism to Avert a War Over Taiwan

The need for a contemporary policy by Maj Franz J. Gayl, USMC(Ret)

mericans do not want to see Soldiers, Sailors, Airmen, or Marines sacrificed in a foreign war when it is known in advance that the cause is questionable and there is no path to victory. We also do not want outdated legacy policy to lull us into a war that is ill-advised in contemporary context.

Nevertheless, in the absence of informed debate, the path to war between the United States and China over Taiwan is predestined. If Taiwan attempts to secede from One China, the Peoples' Republic of China (PRC) will act under its Anti-Secession Law to prevent it, likely preemptively. Any sitting U.S. President will be pressured, >Maj Gayl enlisted in the Marine Corps in 1974, where he served as an Anti-Tank Assaultman and attained the rank of sergeant. Later, he served as a Marine Corps Infantry Officer until his retirement in 2002. He has since served as a civilian Science and Technology Advisor in Headquarters Marine Corps.

or politically incentivized by Chinaaverse members of Congress, to militarily intervene on Taiwan's behalf under the Taiwan Relations Act (TRA). Since China's sovereignty over Taiwan is the PRC's core national security priority, the conflict will escalate without limit. In contrast, Taiwan's fate does not pose an existential threat to U.S. sovereignty or democracy. Many Americans will likely be sacrificed before the United

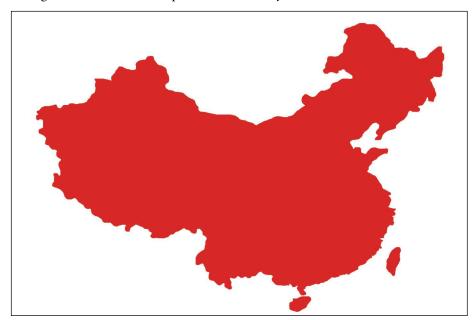


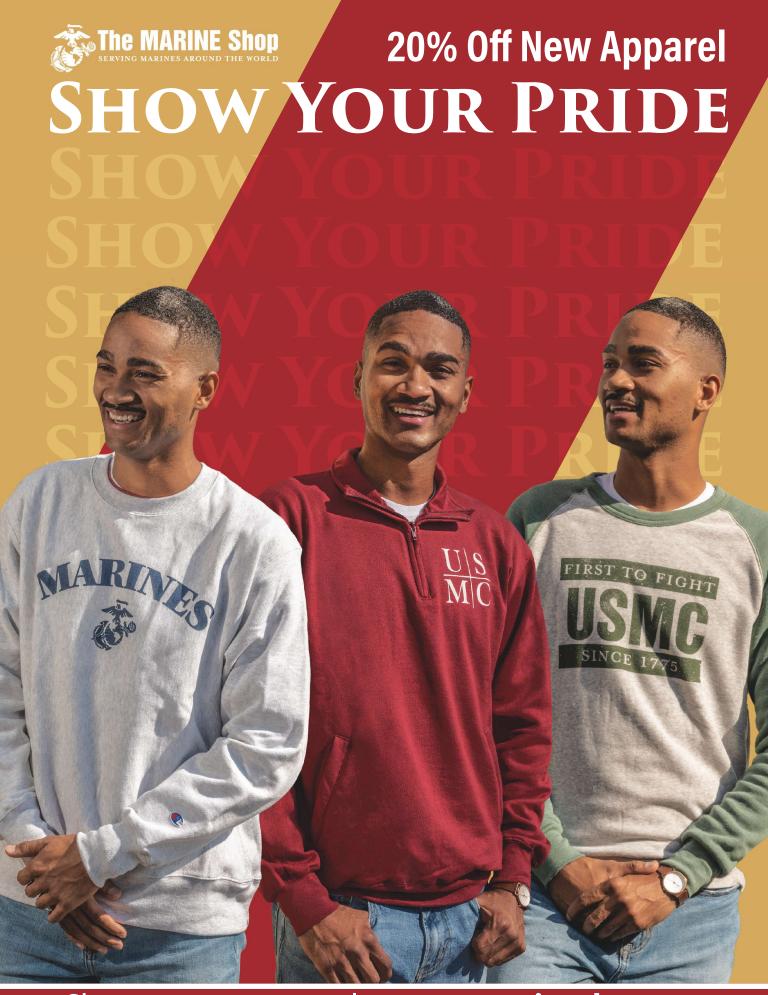
Figure 1. One China.¹

States recognizes the expedition is both misguided and unwinnable.²

The origins of the crisis are clear. In 1971, the United Nations (UN) seated the mainland PRC as China's legitimate representative and ejected the Republic of China (ROC) ruling Taiwan. Despite U.S. ideological preference for the ROC, in 1979, the United States followed UN suit by abrogating its security treaty with the ROC and severing formal relations. We then established formal diplomatic relations with the PRC.³

Three communiques jointly developed by the United States and PRC are the foundation of formal diplomatic relations between the two countries. The Three Joint Communiques delineate an agreed path to political unification of the mainland and Taiwan that leads to the end of the Chinese Civil War. None of the communiques entertain Taiwan's secession, and all seek peaceful unification. Still, the PRC maintains that the civil war is an internal Chinese affair and has not ruled out the use of force to unify.⁴

Separately, a lingering fear of PRC invasion prompted Congress to enact the TRA in 1979. The TRA ignores One China sovereignty and mandates U.S. provision of military capabilities directly to Taiwan for its self-defense.



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It also requires the United States to remain militarily ready to intervene if the PRC acts to unify One China nonpeacefully.⁵

The TRA is not a binding treaty, and ambiguous language affords the United States options including inaction in response to PRC aggression. But fearing a loss of credibility with regional allies, U.S. decision makers feel pressured to treat the TRA suggestions of intervention as legal obligations. The PRC warned that a U.S. security relationship with a Chinese province countermanded the joint communiques and would lead to conflict—and has prepared for war with the United States ever since.⁶

Initially, prospects for peace were hopeful as the PRC Chinese Communist Party (CCP) and ROC Kuomintang worked cooperatively towards unification. But in 2000, the separatist Democratic Progressive Party (DPP) won the presidency and reversed progress. Emboldened by TRA suggestions, the DPP pursued an independence platform that alleged Taiwan's non-Chinese identity. Since 2016, the DPP has held the presidency and dominates the legislature.⁷

Today, the DPP's independence ambitions are encouraged by Chinaaverse U.S. Cabinet-level officials and the 163-member, bicameral, bipartisan Congressional Taiwan Caucus. Over time, Taiwan's relationship with the United States has become indistinguishable from a security alliance. PRC skepticism with the TRA in 1979 proved prescient, as the United States has abandoned the spirit and intent of the communiques.⁸

Still, the PRC continues to look for reasons *not* to force unification considering the devastation that war would bring to Taiwan, the mainland, the United States, and the region. However, in recent years, PRC doubts regarding the sincerity of U.S. commitment to One China have grown.⁹

To emphasize its seriousness on Taiwan's secession, the PRC imposed on itself a legal obligation to forcefully prevent the renegade province's split from China. All the while, the balance of military power shifted as China's capabilities came to overmatch previously



Figure 2. Qing Dynasty in 1644–1912.

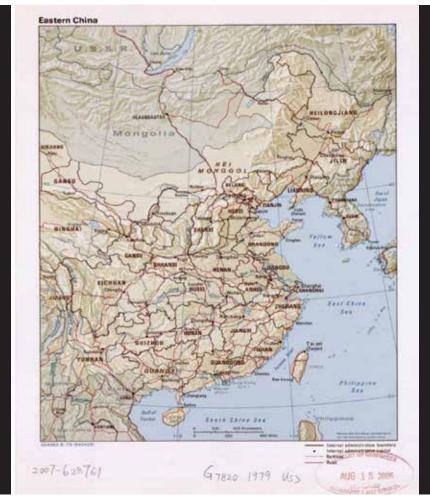


Figure 3. One China in 1979.



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For more information, visit mca-marines.org/legacy-gift-planning unchallenged U.S. military supremacy in many areas. The TRA no longer has the deterrence value that it did when enacted.¹⁰

Taiwan's independence advocates deride PRC claims to sovereignty over Taiwan as propaganda and talking points. Yet, since the 1600s, the territories of the Qing Dynasty have defined China, and they encompassed the mainland and Taiwan. Taiwan's recent alienation is instead an artificial byproduct of China's humiliating century-long colonization by foreign powers, to include Taiwan's occupation by Japan beginning in 1895.¹¹

In 1927, the Communist PRC challenged the Nationalist ROC for Chinese leadership, igniting the Chinese Civil War. Following Japan's defeat in 1945, all Qing Dynasty territories were returned to the still-reigning wartime ROC. But, in 1949 a tactically defeated, though politically intact ROC withdrew to Taiwan from the mainland. The civil war paused as the strategically undefeated ROC and PRC adversaries continued to claim legitimate rule of all China.¹²

DPP assertions of a non-Chinese Taiwanese identity present a false history. Taiwan's citizens are ethnic Han Chinese with deep cross-strait familial ties, economic interdependencies, and a shared Mandarin language, culture, and dynastic history. As for U.S. acknowledgement, Figures 2–4 are official maps dating from the 19th century through 1979 showing the United States' contemporaneous knowledge of Taiwan's provincial status within the sovereign nation of China.¹³

As the last major unresolved civil war contention, Taiwan is the PRC's core national security priority. Civil wars are particularly brutal because of the

Taiwan is the PRC's core national security priority.

underlying passions prompting them, as demonstrated in China, Korea, and Vietnam: the three deadliest civil wars in modern history. We had our own emotionally charged experience with the attempted secession of renegade territories resulting in the American Civil War: the deadliest war in U.S. history.



Figure 4. Republic of China in 1912–1949.¹⁴

The legitimacy of Taiwan's secession is equivalent to that of the Confederacy.¹⁵

Additionally, China's history of whole of society commitment to regime survival is legendary. The Taiping, Muslim, and other 19th century unrest cost 60 million Chinese lives. Twentieth century civil war losses ranged between five and eight million, and 400,000 Chinese perished in Korea. In each case, the regime(s) emerged stronger, and this resolute traditional self-narrative is a source of great pride for all Chinese. These civilizational precedents are useful in anticipating PRC actions as they pertain to Taiwan.¹⁶

If the Chinese Civil War is reignited, massive societal costs and casualties will not demoralize a motivated PRC citizenry but rather fuel its patriotism. Nationalist fervor is sure to tolerate battlefield setbacks and extend CCP legitimacy. Militarily, the PLA will also have distinctive advantages. These include fighting along internal lines and benefiting from an extant PRC command economy that enables recovery from losses faster than the United States and its allies.¹⁷

In contrast, core U.S. national security interests will not be at stake, and historical precedents are again relevant. A cold calculus deliberately delayed U.S. entry into the European theater even though U.S. leaders knew the Holocaust had begun. Also, costs, casualties, and debatable justifications for military expeditions compelled U.S. withdrawal from Vietnam, Lebanon, and Somalia short of mission accomplishment. Likewise, pragmatism discouraged the United States from intervening when at different times the Soviet Union invaded Hungary, Czechoslovakia, and Afghanistan. Finally, desperate humanitarian need was insufficient to motivate U.S. action to stop the Rwandan, Cambodian, or Darfur genocides.¹⁸

Neither the United States nor Great Britain intervened on Hong Kong's (HK) behalf in response to the PRC crackdown because the cause did not justify the costs. With these interestbased precedents, there is no U.S. ideological or national security justification to militarily intervene on Taiwan's behalf, especially as HK's fate would mirror Taiwan's in a politically unified One China.¹⁹

The United States blames the PRC for the Taiwan dilemma. But it was the DPP that voluntarily and with full knowledge of the dangerous consequences brought on the current crisis. The DPP chose to depart from the spirit of the communiques by rejecting both political unification in One China and the One Country, Two Systems model under which both Taiwan and HK have and will continue to get rich and prosper in One China.²⁰

These and other incendiary DPP actions baited the PRC and likewise energized the Congressional Taiwan Caucus. The DPP can wag the American dog by holding the U.S. military hostage to its irresponsible rhetoric. It takes TRA assurances for granted, as a blank check to employ American patriots as it suits Taiwan's whims. Even though the United States has generously provided arms and training to special interests in dire warnings and noble arguments.²³

Congressional interests are deeply conflicted. Since 1979, the TRA has opened Taiwan as a major market for foreign military sales by the U.S. defense industry. The total value of arms sales since its enactment now exceeds 100 billion dollars. More importantly, Taiwan has an outsized impact on the overall U.S. defense budget and defense industry profits, as Taiwan is portrayed as crucial to U.S. strategic objectives in the western Pacific.²⁴

The reciprocal relationship between defense contractors, lobbyists, contributions, and a member of Congress' reelectability is well established. It renders obvious the Congressional support for increasing both arms sales to Taiwan and U.S. defense capabilities in the U.S. Indo-Pacific Command. Our fawning admiration for and default dismissal of PRC positions on Taiwan form a bipartisan U.S. echo chamber.²⁵

Some insist we must stand up for Taiwan as a beacon of hope and last line of defense for liberal democracy and free enterprise in Southeast Asia.

Taiwan to defend itself and ensure peaceful unification, the DPP behaves as though U.S. military protection is a permanent entitlement.²¹

Independence fervor of older secessionists and naivete of younger Taiwanese who lack twentieth century Chinese Civil War memories ignore the suffering and renewed devastation that will come from conflict with the PRC. Similarly, Taiwan's U.S. champions dismiss omens in Chinese history that U.S. support for Taiwan's independence will contribute to that bad ending.²²

The Congressional Taiwan Caucus continues to imply that Taiwan's fate is core to U.S. national security. While the caucus includes an ideologically diverse membership, its most hawkish members hold sway on caucus policy. Neoconservative advisors, journalists, authors, and think tanks are incentivized to assist with messaging that cloaks Many experts minimize the dangers of a military confrontation with the PRC over Taiwan. They contend the status quo will hold, and if not, a conflict would be swift and limited. Also, a U.S. alliance that includes Taiwan, Japan, Australia, and others can be counted on, while the PRC will be isolated as a pariah without axis friends.²⁶

But U.S. allies are conscious of China's grit on the topic of Taiwan, and alliance considerations are tempered by their countries' PRC proximities and vulnerabilities. Also, the PRC shares a mutual defense treaty with the nucleararmed Democratic People's Republic of Korea (DPRK). A war with the PRC over Taiwan is primed to escalate without limit, and short of PRC victory will not end swiftly.²⁷

Some insist we must stand up for Taiwan as a beacon of hope and last line of defense for liberal democracy and free enterprise in Southeast Asia. Their choice of words is ominously similar to statements of the American Friends of Vietnam (AFV), the powerful lobby that pressured the United States to commit to the fateful Vietnam War.²⁸

But the balance of power between the PRC and United States has shifted in ways we did not anticipate in 1979, and the opponent we face is in many respects a peer superpower. What we think of the PRC's government, ideology, culture, internal behaviors, and sovereign claim to Taiwan is irrelevant from the perspective of realpolitik. Taiwan will always mean more to China than the United States; in terms of U.S. interests, we are no longer capable of dictating foreign outcomes in our favor.²⁹

Others optimistically assume the PRC's citizenry longs for a western-style liberal democracy like Taiwan's, and that war will trigger popular revolt on the mainland. But throughout Chinese history, it has been political elites that prompt change from within, not the masses, and the PRC political class is fiercely nationalistic.³⁰

Still, others believe that Taiwan's status is undetermined, and the PRC should accept Taiwan's democratically enabled self-determination. But for the PRC, Taiwan never ceased being sovereign China. Also, centralized CCP messaging motivates 1.4 billion citizens to speak with one emotional voice that renegade Taiwan is sovereign China. The United States' lack of such a unifying message will be evident when a violently polarized public reacts to a major, costly, and above all *optional* foreign military expedition.³¹

Strident PRC-averse politicians and lobbyists have suggested replacing the ambiguously worded TRA with the clarity and certainty of U.S. intervention under a legally binding defense treaty that extends the U.S. nuclear umbrella to cover Taiwan. U.S. military professionals have joined the chorus proposing the United States station thousands of U.S. forces on the island as a casualty tripwire.³²

But Chinese military potency is confirmed, and evidence from Chinese history, such as the PRC's mass entrance

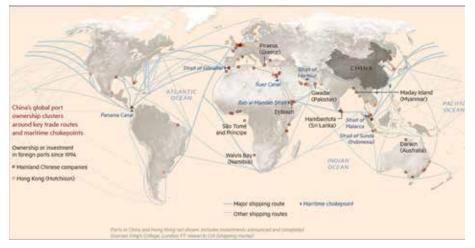


Figure 5. China's global port ownership clusters around key trade routes and maritime chokepoints.³⁵

into the Korean War, guarantee such reckless actions would not deter but rather ignite war. In fact, they would probably trigger PRC preemption and an end to the PRC's no-first-use nuclear weapons policy. In short, such actions would cause the very catastrophe that must be averted.³³

Finally, some will ask what the Taiwanese think, and do they even have a say? Yes, they do. But fate made them Chinese just as fate made us Americans. No peoples can wish away their historical identities. We also know that inventing and carving away a country from an existing nation incurs a steep price, one the Confederacy paid not long ago.

Still, there does exist a broad spectrum of righteous causes to confront the PRC. They include enforcement of UN-verified allied claims to resources in the South and East China Seas and neutralizing armed artificial islands if they come to threaten freedom of navigation in international waters. Other causes are threats to allied sovereign nations with whom we have binding treaties. Figure 5 (on following page) shows how Chinese footholds in the Middle East, Africa, and South America could also come to threaten vital U.S. interests.³⁴

Additionally, if the PRC threatens the United States directly, achieving a whole of American society commitment to defeat China is guaranteed—just as we mobilized to defeat Imperial Japan. For example, if premeditated PRC causation of a pandemic, socialism-inspired violence in the United States, or other existential threat to our nation were proven with certainty, total war might be justified. But supporting the DPP's prideful ambitions falls well short of that high bar.³⁶

The United States could advise DPP secessionists to peaceably accept One

... if the PRC threatens the United States directly, achieving a whole of American society commitment to defeat China is guaranteed ...

Country, Two Systems and cease Taiwan's independence ambitions. If the DPP does not modify its rhetoric, we could rescind the TRA, as baiting the PRC to fight is of the DPP's own choosing. If the Taiwan Caucus obstructs TRA recension, the President could direct all national security agencies to stand down if the PRC takes DPP bait.³⁷

Otherwise, we will sleep-walk into a catastrophic war with China, lacking both a compelling cause and whole-ofsociety buy-in. The FMF mission in the Western Pacific assures that Marines and Sailors will bear the initial brunt of a collision between strong existential PRC and weak elite U.S. interests in Taiwan. Rational Taiwanese will understand when the United States steers clear of the unresolved Chinese Civil War in the best interests of both the United States and Taiwan. Of course, in the end, the Taiwanese will do as they please, but as honorable people, they should not expect the price of their free will decisions to be paid in American blood.³⁸

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>Author's Note: The opinions expressed in this article are the author's and do not reflect the views of the Marine Corps, the Department of the Navy, the DOD, or the United States Government. The author extends special thanks to Col Robert "Ogre" E. McCarthy III for his extensive insights and continuous emphasis that one must reflect on classical perspectives on warfare in order to fully understand state and civilizational behaviors today.

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The Economics of Warfare

Weaponizing costs and economies by Capt Conor T. Bender

can only imagine how David felt when he slew Goliath. A mere boy with little more than a rock was able to slay a giant. Divine intervention or not, David brought down his opponent-the pride of the Philistine army-with a mere rock, winning a war. A rock costs nothing, but a Philistine warrior trained to win wars by single combat? The costs include his armor, horse, basic allowance for quarters, dependent pay, spears, and food. My point with this parable is that the Israelites got their money's worth. Throughout the records of history, we see a significant advancement of weapons with the progression from a rock, to the spear, to the pike, and eventually the machine gun. In Dr. T.X. Hammes' book, The Sling and the Stone, the author discusses not just the evolution of weapons but the evolution of warfare with the implementation of economics, demographics, religion, and society. Of these, economic warfare has come a long way in the last 40 years. Since the 1980s, we have seen combatants fight thriftily and trigger economic disasters with overarching consequences. Economics may seem benign in comparison to an inter-continental ballistic missile or tank, but the stock market can be weaponized with an impact on the scale

of a powerful political player. This player can dictate trade policies, influence elections, determine interest rates, place limits on national social policy decide acceptable banking practices, and drive other activities of a nation.¹

The way that economics can be leveraged to benefit a military campaign can be best seen today in the form of sanctions. The implementation of this >Capt Bender is the former 2d MLG Innovation Officer and Information Management Officer. While active duty, he was a 0402, Logistician, and 0570, Foreign Military Advisor. He has recently left active duty service and currently works as a process improvement analyst in the airline industry.



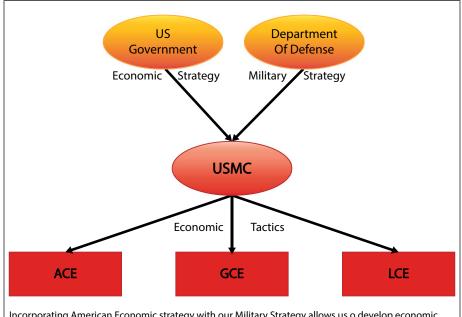
The Stinger missile was an inexpensive weapon that proved its worth. (Photo by Christopher O'Quin.)

economic strategy is just one example of how economics can be a brutal tool for warfare. By forcing an opponent to expend more capital, we are weaponizing economics and attacking our opponent on a fiscal battlefield. By learning the lessons of the past 40 years, we can begin to incorporate this into our strategiclevel plan for future conventional wars. The implementation of this strategy can be seen in past conflicts with CIA and the Soviet invasion of Afghanistan, al-Oaeda's use of commercial airliners as a terrorist weapon on 9/11, and insurgent forces' use of IEDs in Iraq and Afghanistan. Though these are not near-peer engagements, they are examples of how the strategy has been implemented.

Flashback to the 1980s: the Soviet Union has invaded Afghanistan. The CIA, seeing an opportunity to weaken Russia, wages a cost-effective war against them. Working with Afghan fighters, the CIA attempts to implement economic warfare on the Russian military through the introduction of the Stinger missile. A counter to the lethal Russian Mi-24 Hind Helicopter, the Stinger missile system proved to be a budget savvy counter. This cost-effective weapon was the tipping point for the Soviet occupation of Afghanistan. The Stinger missile was an incredibly effective system that was able to leverage \$70,000 against \$20,000,000.² The CIA, a nonmilitary entity, with assistance from a handful of other countries was able to take down a near peer to the U.S. military with limited funds, equipment, and lightly trained Mujahedeen fighters. With limited fiscal muscle, they were able to force the Soviet military to spend an excessive amount of money to counter the Stinger missile and attempt to protect their helicopters. This use of economic warfare eventually brought the Soviet Union to their knees and forced them to retreat from Afghanistan because of the financial costs of waging a war against the Afghan forces and the unpopularity of the invasion at home.

Although the CIA's tactics in the 1980s were nearly twenty-years-old, these tactics still held true in 2001. On 11 September 2001, we suffered a crippling attack on our Nation's soil. With limited flight training, some box cutters, and \$500,000, a handful of innovative fanatics dealt a serious blow to the American mainland.³ As much as this terrorist attack was a physical one, it also had severe economic ramifications. Their attack cost America \$789 billion dollars in physical damage, economic impact, and homeland security costs; this number is not counting the cost of the war in Afghanistan.⁴ In addition, 2,996 people were killed, two international airlines went bankrupt, and four filed Chapter 11.⁵ As barbaric as this tactic was, the economic cost it put on America, as well as a major worldwide industry, was significant. It provoked America into a war in Afghanistan with an entity that we are currently unable to achieve victory against.

The final example of economic warfare can be seen in Iraq and Afghanistan. A consistent problem we have encountered in Iraq and Afghanistan is the fear and issue of being attacked by IEDs. As these devices continued to cause problems, we developed the Mine Resistant Ambush Protected Vehicle (MRAP), a vehicle that costs about \$1 million, which was able to protect Marines, Sailors, Airmen, and Soldiers from IEDs.⁶ There is no question that this vehicle has saved many service members' lives. I am not advocating that we limit the cost we are willing to pay for the safety of troops on the ground; however, al-Qaeda and the



Incorporating American Economic strategy with our Military Strategy allows us o develop economic tactics that allow us to orient on the enemy through their fiscal means.

Figure 1.

Taliban were able to cause a combined arms dilemma. Deploying the MRAP lowered our casualty rate, but now insurgents were attacking us fiscally. Each MRAP cost more than \$100,000 per vehicle to airlift into theater in addition to maintenance costs and the purchase of the vehicle.⁷ The average cost of an IED ranges from \$50 to \$20,000.⁸ If one \$20,000 IED out of 54 completely

In a conventional fight, we will not have as much of a fiscal edge over our opponents ...

destroys an MRAP, then it is a fiscal victory for Afghan or Iraqi insurgents. This is an example of our costs being driven up by combat insurgents, which led to them defeating us on the fiscal battlefield.

If a near peer applied any of these examples on a larger scale, we would be significantly debilitated. A peer to peer conflict looms on the horizon. In a conventional fight, we will not have as much of a fiscal edge over our opponents as we did in Iraq and Afghanistan. The purpose of a military is to serve as an extension of a nation's foreign policy. In order to win a war, we must make it so costly to not just the military but to our enemy's people that they cannot stomach fighting us. This is not just on the battlefield but also on the home front. By fighting cost effectively and forcing our enemy to spend more than us, we are forcing the civilian populace of our opponent to spend more of their money to support their military. As Marines, we must look for a financial victory and not just the maneuver warfare ones. Finance, like cyber, is a battlefield that is being implemented more and more. How often do we go after our opponent's supply chains? With al-Qaeda, we went after their poppy fields for a time; with Japan and Germany, we targeted their factories. In order to wage an economic war, the ends cannot justify the means. The means must cost less than the end for us, and more for our opponent. To do this, we must ask the following: How can we project power for half the cost? How can we force our enemy to spend more than us? What is an economic victory?

With the DIME construct (diplomatic, informational, military, and economic), this mindset of economic victory can be viewed as the tactical employment of economics through a military prism. Economic sanctions, embargos, and trade wars are examples of strategic economic tools adopted by a nation. Since the Oakland A's success with the employment of the "Moneyball" strategy, the military has been striving to incorporate a cost-effective strategy into an effective military doctrine. This has been used in conjunction with the counterinsurgency strategy but has yet to make an impact with conventional warfare.⁹ Rather than asking how we can effectively streamline supply chain management or our table of organization to manage cost, we need to ask how a \$1,000 weapons system can destroy a multi-million dollar airfield or \$35 million aircraft. Rather than buying "runs," we need to be buying "kills." This is the implementation of the economics of DIME at the tactical level. By doing this, we are rewiring our maneuver warfare concepts to bring about a victory through economic warfare. This change requires little effort and modification to our doctrine or strategy but rather a more objective look at what we are using to accomplish tasks. This concept of getting more with less when it comes to weaponry can be applied to conventional warfare and applied by the Marine Corps at the strategic level. In the future, as we look to combat a nearpeer or peer adversary, chances are high that it will be a sovereign nation with a large civilian populace. By leveraging an opponents' economy against them, we can make victory more achievable by bankrupting our opponent. As Marines, we need to begin to ask at the strategic level, "What are we buying with our weapons systems?" With this 500-pound bomb attached to the joint strike fighter, I can disable an airfield. Can I do the same with a \$100 drone and 50 pounds of explosives attached? We need to start ensuring that destroying our enemies is cheaper for us than it is for them. This is a mindset we must adapt when fighting near-peer enemies because, more often than not, they will have similar, if not identical, financial capabilities to support the manufacturing of equipment and weaponry.

We often discuss combined arms dilemmas in the Marine Corps as an ideal way to destroy the enemy. Our opponents, who lately have been on the lower end of the economic spectrum, have done an exceptional job of attacking us financially, but with the exception of 9/11, they have been unable to inflict significant harm to our economy. At the end of the day, this implementation of a budget as a weapon of war is something the Marine Corps must adopt.

As Marines, implementing a finite budget and limited resources is a model

We must learn from our failures and learn from our opponent's successes.

that pairs well with us. When fighting near-peer foes, we will not have the fiscal depth that we had during the Iraq and Afghanistan Wars. Our adversaries, such as Russia, China, and North Korea, have the conventional firepower and budget to finance their forces. We need to force them to spend it in an inefficient manner: on MRAPs, countermeasures for a Stinger missile, and keeping their skies safe.

In conclusion, we need to take the lessons of Iraq and Afghanistan and implement them in how we face peer-topeer enemies. We must learn from our failures and learn from our opponent's successes. We need to learn to develop cost-effective ways to close with and destroy our enemies while forcing them to expend more money to counter us. This is a mindset, not a one-time evolution. We need to consistently enter our enemies' observation, orientation, decision, action loops, and continually force them to use the most costly ways to counter us to force an economic victory over our opponents in a conventional warfare theater. By doing this, we can dominate an intangible aspect of warfare by refining our maneuver warfare doctrine and force our enemies into a new type of combined arms dilemma: a deliberate, weaponized financial crisis. We have seen this time and again throughout history: the privateers in the seventeenth and eighteenth centuries, the Union Anaconda Plan during the Civil War, and the atomic bombs at Hiroshima and Nagasaki. Hampering an opponent in the economic spectrum is nothing new, but we have drifted away from this strategy. We need to get back to the basics.

Notes

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North Korea

A dangerous threat to the United States by LtCol John W. Black

he Marine Corps is the United States' expeditionary force-inreadiness. As such, it is critically important for Marines to observe the operating environment and orient on threats to the United States' interests. One of the most dangerous threats facing the United States right now is the Democratic People's Republic of Korea (from now on referred to as North Korea). North Korea's development of offensive cyber, nuclear, and ballistic missile capabilities endangers the United States' homeland, threatens American interests, disrupts the balance of power in Northeast Asia, and disregards numerous United Nations (UN) Security Council resolutions. If left unaddressed, these North Korean capabilities may potentially plunge the United States into a state-on-state conflict or evolve into a wicked regional problem both of which would have disastrous consequences globally. To reduce the chances of either of these things from happening, the United States has employed all elements of national power (diplomacy, information, military, and economic) to protect its interests and shape the actions of regional actors to maintain the stability and prosperity in Northeast Asia. This article will identify several dangerous threats originating in North Korea, identify ways the United States has adapted to these threats, and propose additional options the United States should consider to reduce and eliminate these threats.

In 2017, Secretary Mattis said, "North Korea is the most urgent and dangerous threat to U.S. national security,"¹ and this remains true today. In 2017, North Korea did several things that endangered U.S. interests and upset the balance of power in Northeast Asia. It detonated a hydrogen bomb with an estimated yield of approximately 100 >LtCol Black is an Infantry Officer and currently the CMC's Fellow at the Massachusetts Institute of Technology's Security Studies Program. He has deployed throughout Indo-Pacific twice with the 31st MEU (Special Operations Capable), to Iraq twice in Support of Operation IRAQI FREEDOM, and to Afghanistan once in support of Operation ENDURING FREEDOM.

kilotons.² It fired 23 ballistic missiles. including an intercontinental ballistic missile (the Hwasong-15) that can range the entire United States and nearly every country in the world.³ It launched offensive cyberattacks, including the "WannaCry" cyberattack that crippled banks, companies, and hospitals across the globe.⁴ Kim Jong-un, the leader of North Korea, verbally threatened to attack the United States and three U.S. allies (South Korea, Japan, and Australia) in the Asia-Pacific region.⁵ Additionally, in October 2020, North Korea paraded four Hwasong-15 intercontinental ballistic missiles on transporter erector launchers and a new nuclear-capable submarine-launched ballistic missile (the Pukgugkson-4).⁶ These actions and Kim Jong-un's fiery rhetoric pose a clear and present danger to the United States as well as its allies and partners. They also raise several questions. What would happen if North Korea effectively pairs its nuclear and intercontinental ballistic missile capabilities? Would it preemptively strike the United States or a U.S. ally? Most people assume "no, North Korea wouldn't do that." However, North Korean propaganda videos show nuclear devices exploding over Washington, DC.7 How has the United States adapted and responded to these provocative actions?

The United States has adapted and responded to these threatening developments by implementing a pressure campaign against North Korea.⁸ The pressure campaign has focused many elements of national power against North Korea to protect U.S. interests in Northeast Asia and deter North Korean aggression. The United States has focused its elements of national power in the following ways:

Diplomacy. The diplomatic element of national power has been the most crucial element of the pressure campaign. The short-term political objectives are three-fold: deter North Korean aggression and provocation, stop North Korea's development and proliferation of nuclear weapon and ballistic missile technologies, and stabilize Northeast Asia. The long-term political objective is to denuclearize the Korean peninsula. To pursue these objectives, the United States has diplomatically engaged numerous countries and international stakeholders on a bilateral and multilateral basis.

The United States has attempted to rally and focus collective international action to accomplish these objectives. The United States has focused most of its diplomatic efforts on Japan, South Korea, China, Russia, and the UN, all of which are important partners in this complicated situation in Northeast Asia.

The United States has increased diplomatic visits and strengthened diplomatic relationships in Northeast Asia and within multinational forums.⁹ Since 2017, the President of the United States, Secretary of State, and Secretary of Defense have visited Northeast Asia, and the United States Ambassador to the UN has advocated for stronger international measures to force North Korean compliance of numerous UN Security Council Resolutions concerning North Korea. Additionally, U.S. Embassies, Department of State's Bureau of East Asian and Pacific Affairs, and the DOD's U.S. Indo-Pacific Command personnel conducted numerous senior political-military-economic engagements with Northeast Asian leaders and stakeholders. These actions demonstrate that the United States desires to work by, with, and through allies, partners, and international community to maintain peace, prosperity, security, and stability. This collective approach may have been one of the primary reasons why the UN Security Council unanimously adopted several of the strongest resolutions in history, including banning North Korean exports, restricting fuel imports and trade, and reducing the ability of its citizens to work abroad.¹⁰

Information. The U.S. strategic communication campaign has promoted transparency and informed countries of U.S. concerns and policy intentions. The United States is concerned that North Korea intends to develop a nuclear ballistic missile capability, in violation of numerous counter proliferation treaties and UN Security Council resolutions, and use that capability to strike the U.S. homeland or U.S. allies. This concern may be understood by watching one of the many North Korean propaganda videos that shows a North Korean nuclear missile striking Washington, DC, or by listening to North Korean news agencies that vow to unleash an "unimaginable strike at an unimaginable time [on the United States]."11 To ensure the international audience understands U.S. concerns and intentions, the United States has strategically communicated several messages: "The U.S. cannot allow a nuclear-armed North Korea," "If other countries won't solve the North Korean problem, America will," "All options (including military ones) are on the table,"12 and "A threat to America or its allies will trigger a massive military response." The United States has also reiterated it will use military force if diplomatic solutions fail to achieve the desired political objectives. The United States is not willing to endanger the U.S. homeland or U.S. allies.

Economically. In support of UN Security Council resolutions, the United States has aggressively pursued the implementation and enforcement of economic and financial sanctions on North Korea. Sanctions have done the following: banned the import of arms, dual-use technology, industrial machinery, luxury goods, metals, military equipment, natural gas, transport vehicles; imposed sanctions and frozen assets on people, firms, and ships involved in the development of North Korea's nuclear program; limited the import of oil and refined petroleum States with credible military operations should diplomatic and other options fail. It is evident from the information above that the U.S. pressure campaign is comprehensive, but it does not answer the question, "what next?"

The United States (in conjunction with South Korea, Japan, China, and Russia) must decide if it will or will not accept or allow a nuclear-armed North Korea. If it does accept a nucleararmed North Korea, perhaps it is time for South Korea and Japan to become nuclear nations as well. If the United States does not allow a nuclear-armed

Since 2017, the President of the United States, Secretary of State, and Secretary of Defense have visited Northeast Asia, and the United States Ambassador to the UN has advocated for stronger international measures to force North Korean compliance of numerous UN Security Council Resolutions ...

products; banned the export of electrical equipment, coal, minerals, seafood, food and agricultural products, wood, textile, and earth and stones; limited the export of agricultural, labor, and metal exports; and restricted fishing rights.¹³ The United States has called on other countries to implement and enforce sanctions, but two countries in Northeast Asia (China and Russia) have not fully enforced the sanctions yet.

Military. The U.S. military has remained postured in and forward deployed to Northeast Asia to deter aggression, assure U.S. allies and partners, protect U.S. interests, and respond to crises. In response to North Korean provocations, the United States has forward deployed numerous advanced military capabilities to the Asia-Pacific region, including three Carrier Strike Groups, Aegis-equipped cruisers and destroyers, submarines, B-1/2/52 strategic bombers, F-22 and F-35 fifthgeneration aircraft, Terminal High Altitude Area Defense Batteries, and Amphibious Ready Groups/MEUs. These capabilities provide the United

North Korea, then the United States must escalate. The United States can escalate with diplomatic, economic, and military elements of national power. Possible courses of action include the following:

Diplomacy. The United States in conjunction with the UN and global/ regional actors could deliver and enforce harsher sanctions, approve the denuclearization of North Korea, and (if North Korea refuses to denuclearize) authorize the use of force to impose the denuclearization of North Korea. Ideally, authorization of the use of force would include broad international support and the fielding of a multinational force to support the denuclearization of North Korea. If there were not broad international support, the United States would have to determine whether or not it should employ unilateral actions to protect the homeland and U.S. interests.

Information. The United States should continue to communicate it does not desire regime change—just the removal or destruction of capabilities that threaten U.S. security. The United

States should continue to communicate to the primary regional stakeholders, especially North Korea, South Korea, China, Japan, and Russia, that it desires a diplomatic solution but will resort to a military solution if diplomacy fails.

Economically. Harsher sanctions (from other global/regional actors) could include the severing of economic ties (including the full cut of oil imports) with North Korea, the freezing of North Korean bank accounts and financial transaction, the forced closure of joint venture companies, the forced In the final analysis, it is evident that North Korea's development of offensive cyber, nuclear, and ballistic missile capabilities endangers the U.S. homeland, threatens American interests, disrupts the balance of power in Northeast Asia, and disregards numerous UN Security Council resolutions. The American pressure campaign has affected North Korea, but it has not achieved the designated objectives yet. To achieve those objectives, the United States must continue to work by, with, and through its allies and partners. If al-

North Korea's development of offensive cyber, nuclear, and ballistic missile capabilities endanger the United States' homeland, threaten American interests, disrupt the balance of power in Northeast Asia, and disregard numerous United Nations (UN) Security Council resolutions.

return/expelling of overseas North Korean workers, the severing of North Korean internet traffic, and increased isolation/embargo/sanction. The United States has largely maximized its economic pressure on North Korea. To generate additional economic pressure on North Korea, the United States would have to entice or negotiate that pressure from other actors—especially China and Russia.

Military. The military should continue to increase its readiness, improve its posture, and refine its plans to support the degradation and destruction of North Korean capabilities that endanger the U.S. homeland and interests. The military element of national power could be used to implement a naval blockade of North Korea. If North Korea detonates another nuclear device or launches another intercontinental ballistic missile, the United States could pursue the targeted destruction of North Korean military capabilities that endanger the Nation, U.S. allies and partners, and countries within the intercontinental ballistic missile engagement zone.

lies, partners, and international organizations like the UN cannot help achieve those objectives collectively, the United States may be forced to take unilateral action to protect the U.S. homeland and interests. That is where the U.S. military, including the Marine Corps, comes into play; we need to be the most ready when our Nation is least ready. We need to remain forward deployed and forward engaged: shaping, training, deterring, and responding to all manner of crises and contingencies, especially when deterrence fails.¹⁴

Notes

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30 October 2020

Over the past two decades, our armed forces have rightfully been focused on the global counterterrorism effort. We concentrated our efforts on the skills required to be successful in the military fight against violent extremist organizations (VEO) and countering insurgencies, becoming highly effective in this arena.

As we move forward, however, it is clear that we must re-assess the skills and organizational capabilities required to maintain our military advantages in every domain. Our Commandant has set forth reimagining our force to answer this challenge through ongoing Force Design efforts. These changes have broad effects that compel the MARFORs, especially a functional MARFOR like MARFORSOC, to rapidly ensure we are bringing the capabilities and organizational construct required to conduct strategic shaping in support of the Joint Warfighting Concept and Service concepts like Expeditionary Advanced Base Operations (EABO) and Littoral Operations in a Contested Environment.

With our Marine ethos and "Gung-Ho" attitude, MARSOC is well suited as an experimentation force, test bed, and innovation engine for distributed operations in contested environments. As we continue to implement the tenets of *Marine Special Operations Forces 2030*, it will be of utmost importance to leverage our small size as an advantage to be the nimble, flexible, and pliable force that can understand, wargame, and experiment with developing operating concepts, leading edge technologies, and the latest equipment to refine employment and enable the joint force. As with the Marine Corps writ large, MARSOC is undergoing a capabilities review to ensure we integrate and enhance the capabilities to operate in the information environment, increase our understanding of developing situations, create asymmetric advantage, and further evolve the role of SOF in competition and conflict. The ability to compete in multiple domains simultaneously and synchronize those effects is an essential element as we define objectives derived from the decades of experience in counterterrorism.

In our role as a connector between United States Special Operations Command and our Service, MARSOC remains positioned to capitalize on the forward deployed placement and access to help prepare the operating environment for potential future operations in competition and conflict. As a complementary force in the contact layer, Marine Special Operations Forces are poised to do the advanced work to assess EAB locations, footprints, and capabilities while also working as part of the stand-in force to buy time and space for joint force physical and virtual maneuver. All aspects of operations in the information environment (Electromagnetic Spectrum Operations [EMSO], Cyberspace Operations, Space Operations, Influence Operations, Deception Operations, and Inform Operations) will need to be enabled by SOF, and MARSOC is positioning for such.

As we look ahead, we acknowledge the hard fought effort and skills learned during our continuing counter-VEO missions. Concurrently, we fully accept the changing world environment and the imperative to adapt. With the articles included in this issue, we look to challenge and question what and how we think in order to chart a path to achieve the Commandant's intent and remain prepared as the Nation's expeditionary forcein-readiness.

We thank the leadership of our professional journal for an opportunity to share our perspective and progress, and invite feedback from the Fleet. Semper Fidelis and Spiritus Invictus!

James F. Glynn Major General, U.S. Marine Corps Commander Marine Forces Special Operations Command

Intelligence-Driven Operations

Getting it right for the future fight by the Marines of Intelligence Company, 1st Marine Raider Support Battalion

he bloating of the intelligence footprint as you move up the chain of command was not only flawed for a counterinsurgency environment but is enough to sink efforts to effectively compete with a great power.¹ Despite this, the Marine Corps is largely organized, trained, and equipped in this manner, thus undermining the tactically-focused intelligence that will be sorely needed in the competition sphere. The lessons learned from the Marine Forces Special Operations Command (MARSOC) Intelligence Enterprise, and in particular the Direct Support Teams (DST) operating in both counter-terrorism and great power competition realms over the last ten years, would benefit the broader Marine Corps as it reinvents itself to meet present and future threats.

The way MARSOC Intelligence units man, train, and equip is far more closely matched to its force employment model than the broader Marine Corps. The only thing that comes close is a MEU Si2 Section MEU when reinforced with intelligence battalion and radio battalion detachments, but the parent units are doing little, if any, integration because they are not organized to do so (root problem) and do not have the proper training to create a common basis for integrating (contributing factor). Ultimately, the Marine Corps is doing itself a disservice in structuring force-generating organizations in a manner completely foreign to how they organize when employed operationally.

The mission-oriented structure and equipping of MARSOC throughout

>The Marines of Intelligence Company, 1st MRSB represent all intelligence disciplines and have spent between two and seven years training and deploying with MARSOC at the team, company, and Special Operations Task Force level. They have deployed in support of a wide variety of missions in PACOM, CENTCOM, and AFRICOM.

the organization makes the force more uniquely able to meet mission requirements than any other Marine Corps unit. It starts with the special operations training pipeline and continues through pre-deployment training and deployment. This article will focus on how MARSOC intelligence has gotten this right, with a particular emphasis on developing the capabilities of Intelligence Special Operations Capable Specialists (SOCS), which includes the four disciplines (F=SIGINT, G=GEOINT, H=HUMINT, I=All-Source) and how they are built into an interoperable team.

Historical Context

In 2003, the Marine Corps was tasked by the Secretary of Defense to create a special operations unit with the well-documented resulting proof of concept being Marine Corps Special Operations Command Detachment One—colloquially referred to as "Det 1." The lesser known detail of Det 1 is that of the 81 Marines that comprised the unit, 32 of them were intelligence Marines (roughly 40 percent). The heavy focus and prioritization of tactical level self-sufficient intelligence personnel was a break from the traditional mold but validated itself as a guiding principle for the next two decades of

MARSOC's force employment. Having intelligence Marines continuously alongside the special operators created a unique, interwoven capability that required no forced integration and resulted in a light, fast, lethal targeting element to operate in contested and denied areas with tactical, operational, and strategic impacts. Nearly twenty years later, we examine the modern day MARSOC and cite lessons learned and concepts to replicate.

MARSOC Intelligence Training and Equipping

MARSOC intelligence candidates undergo a six-month pipeline to become S____O___C___S__ (SOCS) with the most important course being the eighteen-week Multi-Discipline Intelligence Operations Course (MDIOC). The majority of SOCS intel candidates are already somewhat seasoned and have volunteered to be part of MARSOC. MDIOC creates a transformation in students' paradigms from having a primary MOS tunnel-vision to instill that intelligence fusion is more important than any single intelligence discipline, a key principle that is reinforced throughout this article.

The pipeline is unique because it forces all intelligence disciplines to learn

baseline knowledge needed to facilitate integration and overall successful intelligence operations in a SOF environment. Initial classes are designed to educate analysts and collectors on basic capabilities, limitations, and their overall role within the intelligence cycle. Because of the wide variety and independent nature of the billets and operating environments to which multi-discipline intelligence operators (MDIOs) are assigned, the pipeline exposes MDIOs to capabilities, requirements, and asset availability in an effort to prepare them for the circumstances they will encounter. While the MDIO pipeline provides an unmatched foundation for integrating intelligence disciplines, it is still founded on training and readiness standards with periods of instruction being continually updated with the experience of recent deployments and emphasizing interoperability of intelligence disciplines. The ability to frequently refine training to adapt to current intelligence employment enables MARSOC to produce MDIOs with a baseline capability to meet ever-evolving mission sets.

Marines who successfully graduate MDIOC earn the necessary MOS of 8071 and are subsequently assigned to a Marine Raider Support Battalion within MARSOC. Here, they are encouraged to take advantage of opportunities to attend individual training schools that are Marine occupational specialty (MOS) critical, essential, and enhancing. Examples include various courses run by national intelligence agencies, conferences, new equipment fielding, and many more opportunities. Innovation in this regard is highly encouraged, as the command will support training with time and funding so long as Marines are able to communicate its purpose and relevance, along with comprehensive feedback upon their return.

Following the individual training phase, Marines then form a DST and begin the first part of their unit training phase (UTP I). This training block is flexible and can take a variety of forms depending upon mission analysis, region-specific knowledge required for the deployment, and concepts that may be unfamiliar to a Marine preparing

for their first special operations deployment. The premise of cross-discipline work that starts in MDIOC continues through the pre-deployment training cycle. Gone are the days of closed doors, compartmentalized workspaces, and a removed officer-in-charge (OIC). UTP I begins with a Raider Support Team Orientation Course, which is the first time the DST is exposed to the Marine Special Operations Company (MSOC) and Marine Special Operations Team (MSOT) leadership and vice versa. A classroom-style introduction, followed by a demonstration of the employment concepts that the DST provides, build early and often integration. The next portion of the UTP I is an academics week where the Marine Raider Support Team (MRST) of intelligence, communications, and logistics comes together to learn about each other's disciplines as well as topics to include but not limited to embassy protocols, cultural familiarization, concept of operations process, counterintelligence concerns, and many more educational topics.

The MRST then moves on to the Team Readiness Exercise (TRX) series

known as TRX I and TRX II. TRX I brings the individual skill sets together and provides the DST with dedicated time to establish standard operating procedures, become deeply familiar with teammates' capabilities, work on processes, and determine information flow protocols. An intelligence scenario is provided to test how the DST fuses the information collected from multiple sources. TRX II is a varsity-level intelligence exercise where the DST is expected to be fully ready to deploy. The deep intelligence scenario tests all disciplines at the highest levels of collective training tasks and simulates the DST entering a deployed environment with a low-profile footprint.

After proving capable of supporting Marine Raider operations, the DST changes operational control to the Raider Battalion and completes UTP II. UTP II consists of two or three MSOC-level exercises where the DST is charged with supporting the four disaggregated teams and the MSOC headquarters. The importance of integration with MSOC and MSOTs cannot be overstated, and this is why



Preparations to conduct low-signature collection in an urban environment during TRX II. (Photo by Intelligence Company, 1st MRSB.)

a full six-months is dedicated to this phase despite the DST already being deemed deployment-ready. The DST typically splits personnel to spread load the capability, while the OIC and chief manage all collection and analysis from the MSOC headquarters' location.

Training is not the only part of MAR-SOC that drives integrated intelligence; the same can be said for the equipment set and the operational employment of the force. A DST's equipment density list is driven purely by their own mission analysis and validated up the chain of command. This process is crucial to identifying the essential equipment to bring on deployment, especially for the agile operations in which SOCS thrive. Having a plethora of tools and equipment to fit any mission is one of the key factors in making SOCS chameleon-like in their flexibility to meet a huge array of operational requirements. Despite this, the gear list remains deliberately tailored, avoiding the large footprint that comes from the "this is how we've always done it" and "just bring everything" mindset. With the wide variety of gear and equipment also comes a responsibility to train. Not only do SOCS of a specific discipline train on their own equipment, but they also cross train with that of other disciplines. Gear is maintained at the company level, not the battalion, which makes it much simpler to train and become familiar with the equipment set.

Operational Employment

With operational employment, the common theme remains the MDIO concept. Each DST retains the flexibility to quickly stand up and break down Direct Support Elements (DSE), typically a two to four Marine element of various disciplines sent out to support an MSOT or conduct independent intelligence operations. The cumulative knowledge across the SOCS allows for quick establishment of a DST or DSEs because they can project requirements for their fellow SOCS, even outside of their primary discipline. The gear set organic to the DST allows the SOCS to act on this initiative. Between collection assets and communication nodes, the DST is well equipped to meet a

wide variety of mission objectives. The SOCS, with a knowledge of capabilities as well as practical usage of the gear, can anticipate requirements and purposebuild a DST or DSE independent of outside resources or guidance.

Direct relationships with the MSOC and MSOT commanders are extremely important. At the MSOC level, the DST is able to receive the commander's guidance/intent and execute intelligence operations in an autonomous manner that may not be possible in the FMF self-sufficient in satisfying their own intelligence requirements ... once execution starts, our organic intelligence and reconnaissance assets generally provide the most reliable and responsive support to Marine units.²

MARSOC accomplishes the targeting cycle at the MSOC and MSOT level (equivalent to a squad+ or company-) only by having a DST and DSE. MSOT commanders are provided the smallest possible footprint that allows for answering their own intelligence require-

Not only has there been FMF and MARSOC integration but also across the entire joint force, interagency, and contracted support.

because of bottlenecked approval structures. In an MSOC, the mutual trust and confidence between operators and MDIOs is established early because of the unique work up process and the subject matter expertise that each SOCS brings to the table. This mission command of the DST and each SOCS sets MARSOC apart from a conventional unit and allows members of the DST to integrate with other units, commanders, interagency partners, and U.S. interests worldwide. On a recent deployment, the Special Operations Task Force leveraged an opportunity to employ intelligence collection systems aboard a Navy asset transiting nearby. This could only be facilitated through common understanding among the SOTF commander and intelligence personnel, and relationships with conventional forces and leveraging operational-level staff support. It also introduces a concept more commonly found in MARSOC: operations can frequently be designed to support intelligence. The close-knit nature of the MSOC and DST personnel enable a fluid switch back and forth between intel supporting ops and vice versa.

The DST/DSE concept does a vastly better job of accomplishing the endstate for intelligence operations outlined in *MCDP 2*:

Commanders should aim, to the greatest extent possible, to become

ments. Highly capable maneuver units with small footprints are the way of the future, and the DST/DSE construct is critical to making this achievable.

On recent deployments to the Western Pacific, the DST has been in charge of a large intelligence section responsible for advancing many lines of effort at various tactical and operational levels. Not only has there been FMF and MARSOC integration but also across the entire joint force, interagency, and contracted support. With regard to integration, interoperability, and interdependence, this mission has proven that MARSOC working in conjunction with 3d Radio Battalion and other I & III MEF Marine augments is mutually beneficial. The collection coverage vastly increases because of more teams and collection assets. 3d Radio Battalion Marines are exposed to and trained on equipment that SOCS-Fs employ, and MARSOC benefits from the reachback processing, exploitation, and disseminated cell and linguist support at 3d RadBn Virtual SIGINT Operations Center. On the same token, SOCS-Hs can be freed up for more missions or emerging opportunities from the 0211 Marine support, which is consistently dependable. The DST OIC has other officers as direct reports, and the officer-to-officer cross talk proves highly beneficial especially when not from the same original MOS discipline. The autonomy the DST OIC gives the RadBn Det OIC develops that officer to a great extent, and the relative closeness in rank provides a less pressurized environment where collaboration is encouraged and hierarchical challenges do not get in the way of mission accomplishment.

SOCS-Is and Gs have shown time and again how they are force multipliers. An example of SOCS-I diversity is from a deployment as recent as 2019. The DST split their two SOCS-Is to cover two geographically separate missions. One SOCS-I deployed to the Southern Philippines and was the intelligence chief, responsible for the fusion of over 40 intelligence personnel's collection, information, and analysis. The other SOCS-I, a young staff sergeant, deployed to Yemen and was the only intelligence Marine for a significant area of operations. The latter found himself serving as the focal point for the intelligence process at the MSOT level while coordinating with higher commands, external SOF units, and being appointed by an O-5 level commander to serve in a J2 capacity—a billet reserved for an O-3 or higher. The expectation and responsibility historically placed on SOCS-Is is in a completely separate class from that expected of an average all-source analyst, given

entry-level training tailored to the lowest common denominator.

SOCS-Gs have routinely found themselves controlling multiple ISR assets simultaneously, serving as collections managers, foreign disclosure officers, and targeting chiefs. One of those duties is often a full-time job for the majority of the DOD, but MARSOC looks to maximize capability with the minimum-required personnel. Without overwhelming an individual or unit, consolidating tasks forces inherent fusion.

Where the FMF Falls Short and What We Can Do About It

Over the last ten years, Intelligence Battalions, 1st and 2d in particular, have attempted to restructure their task organizations into readily deployable detachments in an attempt to create integrated intelligence teams. Despite these attempts, Marines are realizing the concept has failed for want of effective all-source fusion and SIGINT personnel. The all-source fusion typically falls short because of the seniority of 0211 HUMINT specialists and 0241 Imagery analysts (typically seasoned E-5s to E-7s) over their 0231 all-source intel counterparts (typically E-3 to E-6). While the DST concept relies upon the OIC and senior SOCS-I to drive



Intelligence must have forward presence to support the targeting cycle against any adversary. (Photo by Intelligence Company, 1st MRSB.)

the fusion of intelligence, and MAR-SOC reinforces this concept through training, experience, and tailored selection of those individuals (while rank is an important factor, sometimes it has to be a secondary consideration to experience); this foundation is not set at the Intelligence Battalions to make the concept succeed. The 0231 community is further set up for failure to be the driving force in intelligence fusion through having less tactical exposure and substantially less pipeline training than other intelligence MOSs. Further degrading integration efforts, the false wall that has been built by having a separate Radio Bn results in a real-world divide between SIGINT and the wider intelligence enterprise.

Fleet intelligence team integration does occur when detachments from radio and intel battalions are chopped to MEUs and SPMAGTFs, but it still contrasts sharply with the levels achieved by the DST. Part of the discrepancy lies with a lack of mission, as MEUs spread their intel focus thin by tracking issues in dozens of countries in an area of responsibility, along with the high demand of Geographic Combatant Commands for MEU SIGINT and HUMINT teams being chopped to units with a more specific mission and focus. The other primary detractor is the lack of cohesiveness in the intelligence team throughout all phases of the workup, including those prior to CHOP. While there is a substantial amount of integration done post-CHOP, which is heavily dependent upon the MEU S-2 and Expeditionary Operations Training Group, intelligence tasks are never a primary objective of the training. Thus, scenarios are tailored so that intel personnel are often simply pawns to ensure MEU operations take place at the right time. While this is necessary to ensure complicated MAGTF operations are properly synchronized, it is no means to guarantee intelligence teams are effectively prepared to drive operations in a complex environment.

While the DST concept is bolstered by leveraging both SOCOM and Marine Corps resources, it is still achievable by the FMF. Moreover, the emerging battlefield demands that the



DST Marines conduct maritime operations. (Photo by Intelligence Company, 1st MRSB.)

Marine Corps widely institute the concept. Light, highly capable teams of intelligence personnel designed to operate independently with a tactical focus are essential to success in competing with and, when necessary, defeating a great power. To achieve this, the authors recommend the following changes in how the Marine Corps addresses current gaps to more closely mirror the DST:

• *Doctrine*: Intelligence is often the main effort and key maneuver element in Phase 0 and can be all the way through Phase 3 (you cannot kill it if you cannot find it). Though this concept is reinforced in intelligence publications, it is rarely done in the references in other fields.

• Organization: Match the structure of force-generating organizations to those employing them. Keeping a MEU/SPMAGTF continually composited with its intelligence personnel and equipment is a perfectly viable COA when the MEF maintains the resources to train those personnel and maintain the equipment. At the very least, pull SIGINT personnel and equipment under the same roof as the other key intelligence disciplines to break down the wall.

• *Training*: Apply the MDIO concept across the training pipeline for intelligence Marines, from MOS school

through the pre-deployment workup. Create realistic training that forces all intelligence specialties to come together and truly fuse intelligence, with TRX II being a baseline model. Tactical commanders must also understand they are just as much of a training audience as their assigned Marines when it comes to understanding proper employment of intelligence capabilities. Training cadre must be mature and experienced enough to mentor and educate commanders along these lines.

• *Materiel*: Streamline the equipment set from large servers and heavy communication nodes to reflect the lighter footprint carried by the DST and other SOCOM intelligence personnel. A light footprint for even the most highly classified means of communication is becoming more of a reality. Commercial-off-the-shelf collections equipment is also quickly approaching the capabilities of the DOD, thus an adaptable acquisition system is vital. More interaction between MARSOC and FMF intelligence personnel will lead to shared lessons learned when it comes to equipment.

• *Leadership*: Leading small and highly capable teams demands a brand of leadership from officers that may be familiar to those with a large base of leadership experience but is likely

foreign to newly-minted Basic School graduates. As high-performing teams only break down walls insofar as they trust one another, character, competence, and personality must all be considered when selecting their leaders. Further, the leadership of the tactical decision maker that is supported by these intelligence teams must balance commitment to mission and military standards with freedom of thought and action.

• *Personnel*: Create All-Source Intelligence Specialists that are worthy of their mandate to be the foxes among the hedgehogs of the intelligence field, and push them to be exposed to the requirements of tactical-level decision makers early and often. If any intelligence MOS has a lateral-move requirement, the 0231 field should be the priority. Cross-train 0241 Imagery Analysts and 0261 Topographic Specialists, and continue to seek a solution to merge them into a common GEOINT MOS.

These recommendations represent jumping-off points for a continued dialogue that will be mutually beneficial. While there are a number of lessons that the FMF can learn from what MARSOC has learned, there are also inputs from across the FMF essential to MARSOC, with the vast majority of SOCS coming from the FMF representing one of the many invaluable inputs. Continued engagement between Marine SOF and conventional forces is not just enhancing to present mission sets; rather, it is critical to guaranteeing success in the future fight.

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Avoiding the False Choice

Marine Corps growth through SOF integration by Majs Joshua C. Waddell & Brent C. Birchum

ollowing the release of his planning guidance last year, the Commandant of the Marine Corps recently unveiled the initial results of the Force Design 2030 working group. This initial ruddersteer has solicited lively discussion in the defense community regarding the wisdom of the Commandant's decision to re-orient toward developing a 21st century FMF. The core of the argument has congealed around the dispute as to the risks associated with the Marine Corps divesting of capabilities that have traditionally been employed in the last twenty years of counterinsurgency warfare in favor of pursuing modernization goals tailored to high-end competition against peer threats—particularly China.

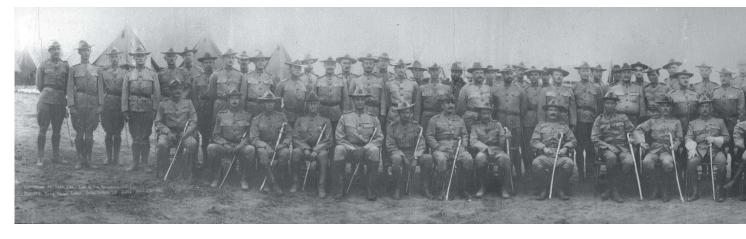
Advocates for the Commandant's actions note the necessity for the Corps to return to relevance in naval campaigning after decades of serving as a second land army. This "return to roots" is supported by warfighting concepts such as Expeditionary Advance Base **Operations and Littoral Operations** in Contested Environments, which show how a small, lethal, dispersed FMF could augment a naval strike group and confound adversary actions through anti-access/aerial denial (A2/ AD) methods.¹ Skeptics rightfully note, however, that the true history of the Marine Corps is not in landing craft assaulting Pacific isles but rather as practitioners of unconventional operations in a myriad of small wars since the nation's first overseas military adventures.² The reality, however, is that this dispute is centered around a false choice. As the Corps undergoes this decade of trans>Maj Waddell is an Infantry Officer with recent experience as a Company Commander and Battalion Operations Officer in a forward-deployed infantry battalion. He also holds a MS from the Naval Postgraduate School in Information Technology Management and is currently serving as an Olmsted Scholar at Tel Aviv University, Israel, pursuing a MA in Diplomacy and Security Studies in Hebrew. He has previous combat experience as an Infantry Platoon Commander and Company Executive Officer in Sangin, Afghanistan.

>>Maj Birchum is a Special Operations Officer with recent combat experience as a Marine Special Operations Team Commander for multiple combat deployments in the Middle East. Prior to special operations, he served as Infantry Platoon Commander and as a Company Executive Officer in Sangin, Afghanistan. He currently serves as the MARSOC Liaison Officer to Special Operations Command-Central. He is formally trained in cyber warfare through the Joint Special Operations University as well as an alum of the United States Naval Academy, Air Force Air Command and Staff College, and the Army's Maneuver Captain's Career Course.



Legends of the Corps like Puller and Daly learned their tactical skills fighting small wars in Nicaragua, Cuba, and Haiti. (Leatherneck file photo.)

formation, there is an opportunity to correct the mistakes of the past with regard to special operations by adding a focused line of effort to Marine Corps force design targeted at overhauling the Corps' integration and interoperability with United States Special Operations Command (USSOCOM). Force Design 2030 contains capability developments and modernizations that would also be highly useful against unconventional threats alongside partners in the special operations forces (SOF). Critically, most of the remaining barriers to SOF integration reside at the policy and doctrine levels, not materiel, requiring little in the way of resource investment. This integration effort can be thought of as managing risk associated with the Corps' enemies' "most likely courses of action"3 while undertaking the necessary preparations to confront future adversaries' "most dangerous course of action."4



Just as in the past, whether in future small wars or peer-on-peer conflict, the quality of Marine infantry will be crucial. (Leatherneck file photo.)

Marines and Small Wars

The Marine officers and NCOs that formed the core of the forces storming trenches and assaulting the beaches in the last wars between great powers gained their combat experience fighting in small wars, taking part in what we would label today as "Special Operations." The iconic LtGen "Chesty" Puller was awarded his first Navy Cross as a lieutenant conducing raids on Nicaraguan bandits in 1930.⁵ Dan Daly earned his first Medal of Honor fighting in a counterinsurgency action in China during the Boxer Rebellion long before he stepped foot in France during the First World War.⁶ However, the establishment USSOCOM in 1987, and the Marine Corps' decision to not participate in said organization's founding,⁷ has resulted in the Marine Corps taking a back seat in global contingency operations. The Marine Corps largely accepted this as it stood by the MAGTF concept that worked so effectively during the early days of Operations ENDURING FREEDOM and IRAQI FREEDOM. In the years that followed, however, the Corps found itself again fighting what became protracted small wars in Iraq and Afghanistan, which persist to this day. In fact, doctrinal employment of the MAGTF has been increasingly rare because its capabilities have become less relevant to the conflicts America sees itself engaged in. In parallel with this, USSOCOM grew exponentially and remains deployed nearly to the breaking point in conflicts around the globe.⁸ While combatant commanders remain

hesitant to fully employ MEUs, there is a continual demand for MARSOC teams, which comprise roughly 1.5 percent of the Marine Corps' manning. In the eyes of combatant commanders, the force provider for traditional Marine Corps missions such as raids and strikes has shifted to USSOCOM, relegating the Marine Corps to a low-end crisis response and/or disaster response force. Gen Berger is aggressively acting to address this identity crisis for the Service. These efforts, however, run the risk of focusing too heavily on "Mahanian" concepts of conventional fleet battle while ignoring the unconventional roots of the U.S. Navy itself, dating back to the raiding days of John Paul Jones.⁹ We argue, therefore, that the Corps' path to relevance should be twofold: continued wargaming and force development actions aimed at high intensity conflict in accordance with the NDS and advancing the Corps' relationship and interoperability with SOCOM by using MARSOC as the point of entry for other units of employment. This second path should be simultaneously enabled through staff integration and training as well as force modernization and maturation.

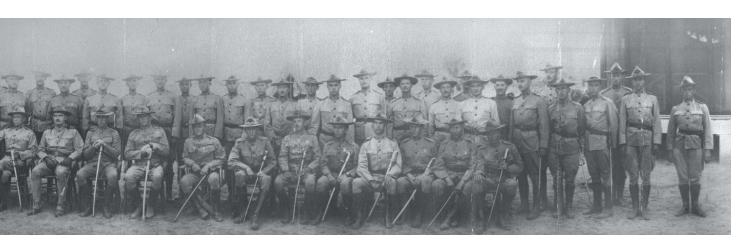
Path to Integration

The ultimate goal in this line of effort should be to provide USSOCOM a natural partner in their global operations. ADM McRaven defines a Special Operation as,

conducted by forces specially trained, equipped, and supported for a specific

target whose destruction, elimination, or rescue (in the case of hostages), is a political or military imperative.¹⁰

The Corps' forward-deployed nature and culture of operational flexibility inherently positions Marines as a Special Operations Force. To further the working relationships, the Corps will need to gain more interoperability with USSO-COM: thus, a focused effort should be made to increase staff-level integration between existing Marine Corps staff officers and those at both the Theater Special Operations Commander (TSOC) and USSOCOM headquarters level. While Marines already have a significant capability in terms of staff training through its resident professional schools, additional certification courses could be provided through the Joint Special Operations University in order to educate and train Marines in the peculiarities of USSOCOM authorities, capabilities, and funding lines. The Marine Corps should pursue changes to the joint manning documents related to USSOCOM staffs in order to increase its equity in those organizations and develop resident competency among Marine staffs for future utilization alongside TSOC staffs. Examples include filling out the J37 Training Section in SOCOM with additional capacity to evaluate and certify Marine Corps and SOCOM related schools and exercises. The Marine Corps should source additional billets within the TSOCs to cross-level staff capacity across each Geographic Combatant Command (GCC) and facilitate MEU and Special Purpose MAGTF



opportunities. It is highly likely that providing more support to USSOCOM staffs would be welcomed because of existing shortfalls. As noted by one recent analyst:

> The most glaring and critical operational deficit is the fact that, according to doctrine, the theater special operations commands are supposed to be the principal node for planning and conducting special operations in a given theater—yet they are the most severely under resourced commands.¹¹

Thus, the Marine Corps' first step towards becoming SOF's natural partner most logically begins at this staff level.

In order to gain the full confidence of USSOCOM and test the interoperability of the FMF with SOF elements, the Corps must also revise how it certifies its units for deployment. We propose reviving the "Special Operations Capable" qualifier as a training standard for deploying units. This certification should be developed and evaluated with the full participation of SOCOM planners and warfighters in order to determine what mission sets the Marine Corps can most directly support. The pinnacle of Marine Corps ground combat evaluation can no longer be the traditional combined arms breach exercise at Twentynine Palms, evaluated only by fellow Marines. At a minimum, this SOC certification should include command and control "plug and play" interoperability between any deploying units with its geographically associated TSOC, demonstrate rapid response planning capabilities in partnership with TSOC crisis response methodologies, and demonstrate tactical proficiency in designated direct action and reconnaissance tasks. With USSOCOM as a full partner in the certification of deploying units, combatant commanders will gain the confidence they need to deploy Marines alongside, or even in place of, SOF as an economy of force measure. This would allow the Corps to reclaim many of its traditional missions with the full confidence of joint force commanders while allowing SOF to focus on the missions to which they are uniquely trained.

Force Development

In order to meaningfully contribute to USSOCOM missions, the Marine Corps will need to continue on its path to develop certain critical capabilities as well as mature legacy capabilities. In terms of newer capabilities, recent history in Syria and Iraq has shown the effectiveness of partnering special operations teams with Marine Corps fires and other supporting agencies.¹² Traditionally, the Marine Corps has balked at the thought of splitting up the MAGTF into component units in such a manner. However, Gen Berger's guidance has already noted that new formations will likely be necessary in the future operating environment that do not mirror traditional MAGTF employment. This flexibility should be applied to tailor-made support to USSOCOM, informed by Joint Special Operations and Marine staff cooperation.

In terms of capabilities, there are few investment decisions in the *Force Design 2030* report that cannot also be utilized in the small wars and special operations context. As the Commandant noted in a recent interview, the design philosophy of the force design planners assumes that a force capable of winning against a peer threat can also be employed against lower tiered threats.¹³ To demonstrate this, Gen Berger's team specifically highlights large investments in long-range precision rocket artillery, high endurance unmanned systems, and additional investments in countering "grey zone" activities.¹⁴ These capabilities would be enthusiastically welcomed by TSOCs wherever Marines are deployed.

In terms of force maturation, it has already been noted that Marine Corps infantry units must undertake new mission sets and employ new capabilities.¹⁵ This requirement applies to integration with SOF units as well. The reality is that the future operating environment, be it in future small wars or high-end conflict, will require more from our infantry than can be effectively trained at a thirteen-week boot camp (of little tactical training value) and a five-week basic infantry course. The Commandant's decision to decrease the overall size of the infantry force should be seen as an opportunity to slow the training pipeline in order to re-develop entry-level training into a more comprehensive course aimed at producing "naval commandos" more in line with the British Royal Marines. Future conflicts will demand professional warriors, and the attrition of experienced NCOs from combat units cannot be tolerated much in the same way talent retention is prioritized in SOF. This new infantry formation must be treated like a technical specialty and

be exempt from any administrative requirements, such as traditional assignments of infantry NCOs to recruiting or drill instructor duty. Reduced future force manning requirements also allows for greater discretion in quality control at the schoolhouses.

Put simply, our infantry should offer unique capabilities both to Naval planners and to TSOCs that justify the risk associated with their employment. As a Marine infantry officer recently put it, "I've never heard anyone in a wargame say they wish they had more light infantry." This problem can be solved by developing a naval commando force that can open new options to combatant commanders while maintaining high standards of professionalism. In absolute terms, this would be a modest investment that could help address the question, "What makes a special operations unit of action?" We argue that the Marine Corps has the resident capability of filling many missions reserved for "special" units, and this capacity could be greatly expanded though changes to manning and training of the Corps' principal units of employment.

Force Employment

To achieve the Commandant's guidance from the Force Design 2030, the Marine Corps must invest in sensitive areas that require a high degree of interagency support typical of special operations. The TSOCs routinely facilitate missions that support the country plans already developed within host nations and deliberately engage with the assets at U.S. Embassies. The major drawback is that typical TSOC units of action lack the size and assets to be a meaningful threat against a near-peer sized element. This is where the symbiotic relationship between Marine Forces and SOCOM can prove to be a fruitful investment. The Commandant comments, "Force design places new demands on our FMF that require us to revisit our current manpower policies supporting MARSOC."16 We recommend increasing MARSOC structure to enable their ability to be the shaping force of choice and to allow expanded roles in all GCCs to support FMF objectives. This includes greater intelligence and logistical support to ensure the facilitation of FMF employment is possible.

In terms of penetrating the Weapons Engagement Zone (WEZ), there are a multitude of non-standard possibilities to insert low-profile Marine/ MARSOC elements to create battlefield effects at key locations within the acceptable risk threshold. To achieve this requires years of battlefield preparation and targeting training efforts, which cannot violate the SOF maxim that "Competent Special Operations Forces Cannot Be Created After Emergencies Occur." However, we argue the best way to conduct an amphibious landing is to already be there prior to the crisis, which is a condition best facili-

... the symbiotic relationship between Marine Forces and SOCOM can prove to be a fruitful investment.

tated through activities in partnership with SOCOM. Once within the WEZ, the Marine Corps could benefit from fires capabilities already developed by MARSOC in concert with forecasted capabilities acquisition by the FMF according to *Force Design 2030*.

With regards to crisis response operations, access and placement are key to enabling the Marine Corps to remain the Nation's "crisis response force-inreadiness." While the MEU traditionally sought to fill this role, recent conflicts have necessitated the creation of new force construction to meet battlefield requirements such as the SPMAGTFs in Europe and Central Command. A ready opportunity exists to expand this role. The recently vacated position of the Crisis Response Force mission by U.S. Army Special Operations Command is a mission that could logically be undertaken by existing Marine Corps structure.¹⁷ We recommend assigning a reconnaissance company to backfill

this capability across all GCCs except Northern Command. Additionally, we recommend allocating helicopter lift support, intelligence support as well as a command slated O-5 or O-6 to represent the unit to the TSOC and GCC commanders as his primary crisis response force. This could be done separate from existing SPMAGTF structure or as an expansion of those existing organizations. This expanded mission for the Corps relieves the requirement for a SOF Liaison element program because the Reconnaissance Company can allocate personnel and provide a direct link between SPMAGTF, the MEU, and other SOF elements or country teams. We recommend working with the MARSOC Raider Training Center to develop a shooting package that meets the Special Forces Advanced Reconnaissance, Target Analysis, and Exploitation Techniques Course and Special Forces Sniper Course levels of training. We recognize there are historic issues with the Crisis Response Force mission, but if the Marine Corps scopes the mission well, it could give Marines access to resources and allow Marines to fully retake their role as the primary crisis response force to the GCC. Rather than being a loss of capability for MEU commanders, this concept instead increases the utility of the MEU's traditional reconnaissance asset. The best way the reconnaissance element can be the eyes and ears of the MEU commander is to be forward deployed in key locations with networks linked to the Nation's most sensitive of intelligence capabilities.

Lastly, we recommend that the emerging Littoral Combat Regiments operate, at least in part, much like SP-MAGTFs have operated in Iraq. As in that conflict, cooperation between MARSOC and conventional Marine units can be utilized during the Phase 0 operations focused on that regiment's area of responsibility. Missions would include confronting violent extremist organizations and pre-positioning assets to respond to potential regional crisis escalations. These actions could be taken in tandem with traditional theater security cooperation activities and humanitarian assistance and disaster response operations. The addition of SOCOM authorities and capabilities to these traditional missions opens entirely new possibilities for the Corps. Though operating in this manner may violate historically sacred Marine Corps axioms, consistent engagement of this type will ensure that Marines are postured to respond to hostilities in an expeditionary fashion in line with the commander's intent of *Force Design 2030*.

Conclusions

At its heart, Force Design 2030 seeks to forecast what the Marine Corps needs in terms of capabilities in support of "our historical roots as Fleet Marine Forces" in a manner that "directly supports our Title 10 responsibility to seize and defend advanced naval bases, and perform all such duties as directed by the President."18 While planners rightly prioritize the requirements of the future operating environment against high end threats, they should also address how the Corps might accomplish the type of missions that have historically been its specialty. We reject the notion that there is a binary choice between great power competition and competency in small wars and other steady state operations. The answer to the problem largely rests on the bureaucratic decision to choose to engage with our brothers and sisters in USSOCOM and exploit the opportunities that will be generated as a result. As the Marine Corps looks to shape its future, it is increasingly clear that a strong relationship with SOCOM must be a key element of that future force.

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Green Water SOF

How MARSOC can achieve the Commandant's vision for Navy-Marine Corps integration in the return to great power competition and beyond

by Maj William H. Strom

arine Forces, Special Operations Command (MARSOC) can achieve the Commandant's vision for naval integration and serve as a synthesizing function between the Marine Corps, Navy, and United States Special Operations Command (USSOCOM). Marine Raiders of MARSOC are the optimal warriors for littoral, or Green Water, special operations in the return to great power competition.

In several recently published documents, the 38th Commandant of the Marine Corps, Gen David Berger, directed sweeping changes to the Marine Corps to prepare for future challenges as the Nation's naval expeditionary force-in-readiness.¹ His vision lays out plans and intent to reshape the Service to better address how the Marine Corps will integrate with the Navy to gain advantages over adversaries in great power competition as outlined >Maj Strom is an Infantry Officer and Marine Raider who has held multiple billets across the infantry and special operations community to include command at the platoon, MSOT, rifle company, and MSOC levels during six combat deployments to CENTCOM and one UDP to INDOPACOM. He is a recent graduate of the Naval War College.

in the 2018 National Defense Strategy (NDS).² A key component of this vision is to pivot from sustained combat operations ashore in the Middle East and re-align the service to comply with its Title 10 responsibilities to seize or defend advanced naval bases and conduct land operations to support a naval campaign.³ Concurrently, the previous Commander of U.S. Marine Forces, Special Operations Command published his long-range vision of the future of Marine Special Operations Forces (MARSOF) that included guidance for the component's role in greater integra-



SOFs have a long history of maritime operations. (Photo by Maj Cesar H. Santiago.)

tion and synchronization of U.S. global capabilities with interagency, coalition, and partner forces.⁴

First, MARSOF can achieve the Commandant's vision by supporting expeditionary advanced base operations (EABO). Second, MARSOF can act as a connector between Special Operations Forces (SOF), conventional forces, coalition forces, partner forces, and the interagency. Finally, MARSOF can support the Joint Forces Commander (JFC), Joint Forces Land Component Commander (JFLCC), and Joint Forces Maritime Component Commander (JFMCC) by integrating its cross domain core capabilities across warfighting functions to gain access to maritime terrain and facilitate the movement of naval forces inside the weapons engagement zone (WEZ) of an adversary's anti-access, area-denial (A2/AD) bubble. MARSOF can do all these things while maintaining a small footprint and low signature profile.

Past to Present

MARSOF has a rich history of supporting maritime campaigns and enabling naval operations. Perhaps most well-known is the Marine Raider Battalions' support to naval campaigns in the Pacific during the Second World War. In the fall of 1942, Marine Raiders from 1st Raider Battalion, commanded by LtCol Merritt "Red Mike" Edson, conducted clandestine landings to gain and maintain key maritime terrain. On Guadalcanal, the Raiders defended the famous Henderson Airfield at the Battle of the Bloody Ridge. The airfield would go on to support naval operations across the theater. This is a perfect example of how gaining and maintaining control of key littoral terrain directly contributed to successes in the overall maritime campaign. The same principle still applies to how SOF supports a larger campaign today.

Presently, MARSOF are flexible, tailored, and scaled to meet unique mission requirements starting with a base unit of Critical Skills Operators (CSOs). Special Operations Capabilities Specialists (SOCS) and special equipment are then added as needed based on mission analysis and needs of each supported commander. MARSOC currently has SOF formations of all sizes with unique, tailored enabler packages deployed across the globe.

MARSOC support to EABO

MARSOC can support EABO almost immediately. The Marine Corps' concept of EABO is intended to counter adversary attempts to deny U.S. regional access through forward-force posture and mitigation of enemy long-range weapons that would otherwise destroy major friendly bases.⁵ This concept is particularly relevant given the Commandant's concern over the rise of "Mature Precision Strike Regime" adversaries with long-range precision strike capabilities.⁶ Further, this concept relies on a low-signature and difficult to target dispersed force that is operationally relevant inside an adversary's WEZ.7 In other words, littoral warfare requires an asymmetric force that can survive and conduct fire and maneuver through littoral seas within the adversary's WEZ.⁸ Marine SOF are tailor-made for this mission as the Commandant already alluded to with his discussion of "recent experiences by our own highly distributable ground units operating in an adversary's WEZ, including our own SOF."9 They thrive in austere, politically sensitive, and denied environments and can operate either unilaterally or multilaterally with combined joint and partner forces or interagency players.¹⁰

MARSOF can operate without straining or stressing conventional supply chains, which further contributes to their ability to maintain a low profile. MARSOF are uniquely capable of selfsustaining off the local economy and have been practicing this concept for the past ten years in austere locations across the globe to include U.S. Central Command, U.S. Africa Command, and U.S. Indo-Pacific Command. The logistics capability that is organic to a Marine Special Operations Company (MSOC) is robust and has been proven effective time and again. This capability is the definition of what the EABO handbook refers to as a "forage force" that can reduce the stress and strain on traditional supply chains.¹¹ Through a mixture of contracting, host nation infrastructure, and reach back to both conventional and SOF logistics chains, combined with a Marine culture of "improvise, adapt and overcome," MARSOF logisticians are well adapted to provide support to forces dispersed across a theater.¹²

As the EABO concept suggests, gaining access and operating freely in an adversary's WEZ and A2/AD bubble before and during conflict requires an operationally mobile integrated maritime defense in-depth and the ability to enable operational fires to target adversarial naval and aviation platforms.¹³ MARSOF's ability to conduct both of these requirements with the flexibility of mind required for SOF success demonstrates that they are the spearhead of inside naval forces in support of EABO.¹⁴ Through clandestine or low signature infiltration and insertion methods—such as commercial or private indigenous vessels, parachute operations with airborne containerized delivery system drops of equipment, and subsurface operations—MARSOF can gain access to contested terrain and establish small footprint infrastructure to support naval operations. By utilizing clandestine networks and sensitive activities, MARSOF could establish mobile missile sites enabled by lightweight vehicles and containerized missile systems for both offensive and defensive fires in support of naval operations.¹⁵ Further, with a few minor training and

acquisition additions, MARSOF could integrate with the Navy's networked systems such as the Aegis combat system to provide integrated air defense and over the horizon targeting support to naval forces.¹⁶ This capability would provide the JFC and JFMCC a landbased node to integrate into the naval scheme of maneuver. With a combination of sensors, unmanned aerial, surface and underwater vehicles, weapons such as ASCMs and defensive fires platforms, MARSOF could directly contribute to sea denial while at the same time providing a "land-based anti-access umbrella," thus providing shelter and facilitating access for friendly naval forces.¹⁷

MARSOF as a Connector

The first pillar of MARSOC's vision for the future is that MARSOF will serve as a connector between SOF, conventional, coalition, partner, and interagency equities. In other words, MARSOF is the "ideal integrator and synchronizer of U.S. global capabilities with USSOF and partner nation actions."18 MARSOC is currently capable of serving as this connector, primarily by organizing and deploying O-4, O-5, and O-6 level SOF headquarters to synchronize efforts and conduct Phase 0 through Phase III operations-precisely what it has been doing for the past ten years.

MARSOC is uniquely trained and organized to seamlessly integrate into the joint force. They can immediately deploy a skeleton O-5 or O-6 headquarters and source a fully trained and capable MSOC as a supporting command.¹⁹ This force could facilitate shaping in Phase 0 and build long-term relationships necessary for SOF operations. This headquarters would serve as the synchronizer of USSOF efforts and integrate other equities while maintaining the ability to serve as a crisis response headquarters should it be needed. The headquarters could be sourced to full strength at the beginning of Phase I and continue through the duration of the conflict. Additionally, MARSOC can source a Special Operations Forces Liaison Element to MEFs and subordinate units such as MEUs. Currently, the Special Operations Forces Liaison Element is sourced from across USSOCOM, but it should solely come from MARSOC because of the shared culture between Raiders and conventional Marine units.

Once Phase 0 infrastructure is established and forces are dispersed and conducting EABO, MARSOF can serve as a connector between other naval forces by providing eyes, ears, and supporting fires. Marine Special Operations Teams, or even partial elements thereof, could be networked into the Navy's Aegis system via mobile, low-signature, landbased platforms to provide defensive protection to U.S. warships as well as offensive fires from ASCMs. MARSOF's small footprint, ability to operate in austere, sensitive environments, and mature force make them the ideal force to undertake this mission. Additionally, MARSOF could utilize the concept of networking with Aegis to control maritime terrain as an inside naval force. Networking with Aegis would integrate MARSOF into chokepoint control operations and naval blockades of enemy shipping, thus directly facilitating containment of enemy forces.20

MARSOF can gain access to denied or sensitive terrain through partner forces. Once relationships and surrogate networks are established in Phase 0, MARSOF could provide an advantage similar to that in the World War II Battle of Leyte Gulf. In that example, guerilla forces throughout the Philippines provided critical reporting on Japanese ship movements and order of battle.²¹ MARSOF units of today can build surrogate networks to do the same. Further, MARSOF trained and advised partner forces can contribute to the overall campaign objectives by providing limited offensive operations against an adversary in line with JFC and U.S. interests.

In addition to integrating into blockade and chokepoint control operations, MARSOF can serve as a connector between naval forces by supporting amphibious operations in Phases I through III. The fruits gained in Phase 0 from operational preparation of the environment through relationships and sensitive activity infrastructure development would directly support amphibious operations. Consider the Falklands Islands conflict of 1982 where the British SAS conducted reconnaissance of potential amphibious landing zones during Operation SUTTON.²² MARSOF can conduct this same type of operational level special reconnaissance and direct action unilaterally, partnered, or through a surrogate.²³

MARSOF Supports the JFC with Multiple Capabilities across Warfighting Functions

MARSOC is already providing the JFC more bang for the buck with scalable task organized forces operating across the globe. Additionally, MAR-SOF is directly responsible for maintaining proficiency in the following SOF core activities: direct action, special reconnaissance, counterterrorism, foreign internal defense, security force assistance, counterinsurgency, support to counter weapons of mass destruction, and support to unconventional warfare.²⁴ MARSOF can leverage these skills and apply them across the warfighting functions. vide multiple platforms to collect from. MARSOF is capable of multiple types of special reconnaissance as a core activity by technical methods, surrogate employment, or traditional unilateral conventional reconnaissance through clandestine infiltration into denied or contested terrain. MARSOF is currently equipped and proficient with unmanned aerial systems and could easily adapt to employ unmanned underwater and surface systems that could be launched from EABO platforms to gather information on enemy forces and terrain for decisions at the operational level. Finally, MARSOF are organized and proficient with organic all-source intelligence analysis capabilities that can fuse organically collected and shared intelligence with operations while leveraging the full weight of the intelligence community at the tactical edge.

Fires: MARSOF are organized with joint terminal attack controllers and can call for fires from any available asset. The Commandant has stated that he wants the conventional Marine Corps to divest of traditional tubed artillery

Networking with Aegis would integrate MARSOF into chokepoint control operations and naval blockades of enemy shipping thus directly facilitating containment of enemy forces.

Command and Control: MARSOC is organized, trained, equipped, and capable of providing O-4, O-5, and O-6 level SOF headquarters to integrate and synchronize U.S., coalition, partner, and interagency assets in support of the JFC's mission.

Intelligence: MARSOF provides organic multi-disciplined intelligence operators with emphasis on human and signals intelligence collection to support operations from Phases 0 through III. By employing these assets in Phase 0, the supported commander gains established networks and infrastructure that will pay dividends in future conflicts. Employing MARSOF in dispersed EABO operations will proin favor of long-range assets and landbased anti-ship cruise missiles such as Tomahawks to facilitate sea denial and sea control.²⁵ With minor training and logistics adjustments, MARSOF could easily become proficient in the deployment and employment of this capability at the lowest level.

Maneuver: MARSOF can support the maneuver of larger naval forces through multiple means. During Phase 0, MARSOF can conduct strategic shaping and reconnaissance operations, such as human network and infrastructure development. Additionally, they can gain access through security force assistance, foreign internal defense, counterinsurgency, and ongoing counter-terrorism operations with partners in the region. During Phases I through III, MARSOF could support naval maneuver with offensive and defensive fires; special reconnaissance of key physical, human, and cyber terrain; employment of unmanned systems; partner force advise, assist, accompany, and enable (A3E) operations; direct action raids; sabotage of enemy infrastructure; and vessel boarding, search, and seizure.

Logistics: While MARSOF are not currently able to move large amounts of equipment and supplies organically, they can support the JFC's logistics preparation of the battlefield by establishing contracts and network infrastructure as advanced forces in preparation for a larger campaign. Such contracts could include land use agreements for basing solutions and commercial and private vessel leasing in support of clandestine and low signature infiltration and insertion.

Force Protection: As part of a networked Aegis-like system with organic sensors and fires, MARSOF could provide force protection to friendly networked ships in the littoral theater. A MARSOF element deployed to key terrain such as a chokepoint inside an adversary's WEZ could easily be equipped with air and missile defense systems that could provide protection to ships from landbased platforms when networked to the Aegis system.

Information: MARSOF can support the JFC through organic information operations nested with higher headquarters lines of effort and organic offensive and defensive cyber operations. Although these capabilities are in their nascent stages, MARSOC already has touchpoints with conventional units such as Marine Corps Forces, Cyberspace Command (MARFORCYBER), and the Marine Corps Information Operations Center (MCIOC).

According to joint maritime operations expert, Professor Milan Vego of the Naval War College, a key element of sea control is a balanced composition of naval forces. Indeed, diversity in naval combat arms is required for successful littoral warfare.²⁶ As previously noted, MARSOF provides this cross domain balance and diversity and punches far above its weight class which provides the JFC a disproportional gain for a minor investment. All activities conducted by MARSOF are synthesized by the SOF headquarters to maximize effects against an adversary and help mitigate their A2/AD bubble. Perhaps most importantly, MARSOF can do all of this with a small footprint in a denied, austere environment.

Counter Argument

Critics of employing MARSOF as littoral SOF would argue that MARSOF is not the right force for achieving the Commandant's vision of reintegration with the Navy in a maritime campaign because the Commandant has already begun to re-structure the generalpurpose Marine Corps forces for this exact mission.²⁷ Although MARSOF originates from conventional Marine units and is supported with equipment, maintenance, administrative functions, and funding from the Service, they work primarily for USSOCOM. As a result, MARSOC units typically have no direct command relationship with the MEF. The Commandant's vision clearly indicates that he wants conventional Marine units to conduct the types of missions and support to a larger naval and maritime conflict in the littorals as discussed in the above paragraphs. Other than a brief discussion of how to provide personnel support, MAR-SOC is not mentioned in any of the planning documents published by the Marine Corps as either a supporting or supported element in great power competition.

Rebuttal

MARSOF *is* the right force for littoral warfare because it meets all the Commandant's criteria for the force of the future and is ready now. With just a few minor adjustments to training and acquisitions, MARSOC can support integration with naval forces by conducting strategic shaping and reconnaissance operations in Phase 0; establishing footholds and supporting EABO; acting as a connector between SOF, Marine Corps, Navy, coalition, partner, and interagency equities; supporting amphibious operations; and satisfying USSOCOM's requirement to support the JFC in a maritime conflict. At a minimum, MARSOC should be established as the advanced force to conduct these missions until conventional Marine units are organized, trained, and equipped to conduct them unilaterally. The Commandant has stated that part of the requirement for achieving his vision is that he wants "smarter grunts" and a more educated force; he has raised the GT score requirements for infantrymen.²⁸ MAR-SOC already has a regiment's worth of highly trained and intelligent CSOs. The required GT scores for CSOs are higher than the requirements for infantrymen.

Additionally, CSOs undergo a rigorous selection process that screens candidates for integrity, effective intelligence, physical ability, adaptability, initiative, determination, dependability, teamwork, interpersonal skill, and stress tolerance.²⁹ These are the exact attributes that make Marine Raiders ideal for the challenges of littoral warfare. Finally, MARSOF is generated out of the conventional Marine Corps. Every Raider spends a tour in the conventional forces before applying to become a CSO.³⁰ MARSOC leads the way in SOF and conventional force integration, interoperability, and interdependence (I3) by being the first to source personnel for the SOFLE program and frequently transitioning Marines back and forth between MARSOC and conventional Marine units. Examples include SOCS with multiple tours in MARSOC and conventional units and some Special Operations Officers (SOOs) such as a current MEU commander. Recruiting from conventional Marine units combined with personnel rotating between MARSOC and conventional units further promotes I3 and results in Raiders with Marine Corps DNA who understand Marine Corps culture, speak Marine Corps language, and by extension speak Navy language. They are the ideal warriors to fulfill the Commandant's vision of integrating Marines with the Navy in support of maritime campaigns.

Conclusion and Recommendations

Employing MARSOF in the littorals to serve as an inside naval force in support of a greater maritime campaign promotes symbiosis between the Marine Corps, Navy, and USSOCOM. It achieves the Commandant's vision of reintegrating Marine Corps and naval forces and supports USSOCOM's requirement to support the JFC with SOF in great power competition. MARSOC was born out of the legacy of World War II Marine Raiders who fully understood and integrated into the needs of the naval forces in the littorals. MARSOC, with the concurrence of USSOCOM, should support the Marine Corps' integration with the Navy by having MARSOF focus on the INDOPA-COM area of responsibility as a priority. MARSOC should acquire and become proficient with the tactical equipment and sensors such as unmanned aerial, surface, and underwater systems as well as ASCMs and defensive platforms that will enhance its ability to conduct strategic shaping and reconnaissance while also providing offensive and defensive fires from maritime terrain. MARSOC should continue to develop and validate this type of new equipment for eventual employment in the conventional Marine Corps. Further, MARSOC should network into the Navy's Aegis system and future generations of that capability to supplement the protection of naval maneuver in the littorals. MARSOC should continue deploying forces to the Pacific and explore new partnerships that will facilitate access in places such as the Philippines, Vietnam, Thailand, Malaysia, and Indonesia. Finally, Special Operations Command, Pacific in conjunction with MARSOC, should establish a Marine O-5 Special Operations Task Force headquarters in the Pacific area of responsibility to begin building Phase 0 relationships and infrastructure necessary to support future operations.

Due to historical ties, deeply embedded Marine culture, flexible force design and cross domain capabilities, MARSOF are clearly the force of choice for today's maritime special operations in the littorals and can easily achieve the Commandant's vision of Navy-Marine integration during the return to great power competition.

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China's Quest to Maximize Status and Sovereignty in the South China Sea

China's strategic goals by MSgt Marc Arrington

ir Walter Raleigh once wrote, "For whosoever commands the sea commands the trade; whosoever commands the trade of the world commands the riches of the world, and consequently the world itself."¹ China's creation of human-made islands and naval military expansion

in the South China Sea (SCS) are allowing it to command the vital maritime trade routes. These efforts are part of an attempt to develop hegemony in the region, and they come at the expense of the international community and in defiance of international maritime law.

The SCS dispute is at the forefront of international relations since 2010. The dispute is a significant security challenge for the United States and the international community as a whole. The U.S. Congress's Committee on Foreign Affairs stated in 2016, "the territorial disputes in the South China Sea might represent the most significant long-term security challenge in our shared jurisdiction."² President Obama's National Security Strategy in 2010 spoke of the importance of China's influence on the region and the need to deepen the United States' influence to counter China's economic presence.³ President Trump's National Security Strategy in 2016 mentions China 32 times

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Map 1. China's dashed-line map from notes verbales of 2009. (Map provided by author.)

and speaks of China's intention to displace the United States' geopolitical advantage in the region. Trump goes on to speak of China's military and naval expansion, challenging the international order and encroaching on the sovereignty of its neighbors.⁴

China's naval expansion is of strategic security concern to the region and international order, but one must empathize from a Chinese perspective in order to understand and exploit the reasoning behind the expansion. In order to do this, one must know China's historical disgrace caused by foreign imperial powers. Also, what historical claims does China have to the SCS? What are the goals of China in the SCS and what is the effect on international security if China can obtain hegemony over the SCS?

China's Humiliation during the Opium Wars

China's first humiliation by an

imperial power was at the hand of the British Navy during the Opium Wars of 1839–1842. The British were bringing in opium from India and trading it for Chinese silver in mainland ports when the Qing court attempted to eradicate the trade in 1839.⁵ The Qing emperor then ordered the seizure of British trade ships. The British retaliated against the seizure of their trading vessels by de-ploying armed frigates. These British Navy frigates attacked port cities and sailed upriver, destroying several historical landmarks—including the Summer Palace of the Qing emperor. The frigates then sailed, undamaged, upriver to port cities on the southern part of China's mainland.⁶ The British frigates' ability to travel upriver and against wind easily overwhelmed China's rudimentary defenses.

Because of the naval defeat, the Qing government was forced to negotiate several embarrassing treaties with the British. The two treaties resulting from the Opium Wars are the Nanjing and Bogue Treaties.⁷ These treaties forced the Qing government to relinquish the territorial rights of Hong Kong to the British, establish five treaty ports for British trade, a policy of extraterritoriality for British nationals residing in the treaty ports, and pay a monetary indemnity of six million for British suffering.8 The policy of extraterritoriality was perhaps the most demeaning of all the concessions because of the encroachment on Chinese sovereignty. The policy dictated that British nationals operating in treaty ports were subject to British laws not Chinese. The dishonor of the Qing government at the hands of the British Navy taught the Chinese the importance of naval power.

Miller describes the trauma of the Opium Wars as a transformative historical event for the Chinese people and government.⁹ China suffered from defeat at the hands of the British as well as the French, leading to what is known as the one hundred years of humiliation.¹⁰ Members of the Qing Celestial Court learned from the defeat at the hands of the imperial powers. The Celestial Court concluded that the goals of the European invaders were to exploit China for economic gains.¹¹ In 1942, one member of the court, Wei Yuan, developed the "Plans for Maritime Defense."¹² Yuang, in an address to the Chinese court, stated,

Today the British barbarians not only have occupied Hong Kong and accumulated a great deal of wealth as well as a proud face among other barbarians, but have also opened ports and cut down the various charges so to grant favor to other barbarians. We must use barbarians against barbarians. Use France and the United States to build ships. It is proper to use them to learn their superior techniques in order to control them.¹³

From the shame of the Opium Wars, the Chinese developed a plan to take the naval technological expertise from the imperial powers and use it to protect the sovereignty of China. Therefore, one can ascertain the Opium Wars caused a transformative historical event that led China to prioritize naval power for the hood, as Miller explains, has two goals regarding post-imperial international relations: the first is to maximize territorial sovereignty and the second to maximize status.¹⁶

China's victimhood as a result of the naval defeats during the Opium Wars correlates via goals of victimhood to the current naval expansion in the SCS. China's objective for their military build-up in the SCS is to maximize status internationally. The SCS is a crucial sea lane utilized regionally and internationally. China's ability to alter or disrupt the sea lane gives the nation a higher status internationally, satisfying one goal of post-imperial ideology. China's claim to the SCS islands and sea lanes shows a strict concept of the sovereignty of its borders, the second goal of victimhood.¹⁷

Therefore, through the lens of a PII, one can see how the historical trauma and the transformative historical event of the Opium Wars are leading contem-

...the Opium Wars caused a transformative historical event that led China to prioritize naval power for the security of ports and the mainland. One can infer the historical context starting with the Opium Wars correlates to China's contemporary naval expansion in the SCS.

security of ports and the mainland. One can infer the historical context starting with the Opium Wars correlates to China's contemporary naval expansion in the SCS.

China's Goal of Maximizing Sovereignty and Status

The Opium Wars and the subsequent 100 years of humiliation caused China to identify as a victim of imperial powers. Miller discusses how imperialized nations suffer from post-imperial ideology (PII).¹⁴ Miller explains that imperialized nations suffer from a mentality of victimhood that becomes a part of their national identity and thus affects their international outlook.¹⁵ Victim-

porary China to secure its port cities by maximizing sovereignty through naval expansion in the SCS. Chan supports this claim in the following: "Beijing aspires to recover from China's past humiliations and restore its standing as a great power. Such an aspiration would necessarily suggest questioning and even seeking to alter the status quo."18 The status quo for China has been one of subordination to imperial powers' naval strength. Hence, to alter the status quo, China must create a strong navy with a significant submarine capability to expand its influence in the SCS to protect and expand China's sovereignty.

Associating borders and territorial possessions with maximizing sovereign-

ty correlates to PII and goals of victimhood. The Nine-Dash Line is a line of nine dashes crudely drawn after World War II on a 1947 map of China's eastern border, the Nine-Dash Line encompassed the Spratly of Nansha ("South Sand Islands" in Chinese) in the SCS.¹⁹ China uses the Nine-Dash Line as a historical justification for its claim over the SCS and utilizes nationalist sentiments for naval expansion in the SCS against international law.²⁰ China must possess the Spratly Islands encompassed by the Nine-Dash Line to gratify its need to maximize sovereignty. Lee explains that "territorial possession is essential in the materialization and meaningful gratification of sovereignty."21 The Chinese government looks at the SCS's islands encompassed by the Nine-Dash Line as sovereign territory. The naval expansion provides the means to maximize sovereignty over the islands against the status quo and international law. Also, China looks at international law as a tool of imperial countries and tends to attempt to negotiate territorial conflicts without subjugation to international law.²² The naval expansion provides the military force required to alter the status quo and reclaim China's historical claim via the Nine-Dash Line.

China also seeks to maximize international status through naval expansion in the SCS. As the quote from Sir Walter Read suggests, command of the sea and its riches leads to the command of the world itself. The SCS is one of the world's most utilized and vital maritime shipping lanes. Over half of the world's oil tankers traverse the SCS annually, making it a security concern for regional and international states.²³ China's naval expansion in the SCS provides the military might needed to secure the shipping lanes. If China sought to alter the international status quo, it could then restrict the international community's utilization of the shipping lanes through the SCS. The naval expansion and possible repercussions on international maritime trade maximize China's status internationally. This possible threat was at the forefront of Congress's hearing on the SCS in 2016. Colin Willett, then deputy assistant secretary of state, stated,

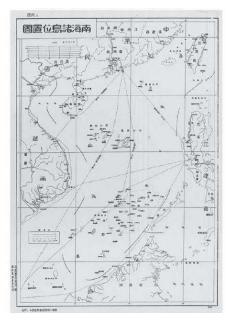
I am concerned we have few direct options to counter this type of escalation if China chooses to pursue it. China's network of airstrips, radars, missile batteries constructed across the South China Sea while the rest of the world watched, may prove a capacity—excuse me—may provide a capacity to enforce China's will over the South China Sea.²⁴

The naval build-up in the SCS has placed China in a higher status internationally. Military might may not make right, but it causes the internaof dollars' worth of hydrocarbon fuels resting beneath the SCS.²⁶ The claim over those natural resources is a matter of international law. Unfortunately, several countries in the SCS are within the 200-mile EEZ of the SCS, including Indonesia, Malaysia, the Philippines, and Vietnam.²⁷ Hydrocarbon fuels are the lifeblood of nations and allow militaries to function. China seeks to lay claim to the natural resources in the SCS to further legitimize its government and maximize sovereignty and status.²⁸ If China can extract the natural resources

If China sought to alter the international status quo, it could then restrict the international community's utilization of the shipping lanes through the SCS.

tional community to take notice of China's military prowess, for better or for worse increasing China's international status.²⁵

Another aspect of China's expansion in the SCS is the issue of control over the vast natural resources within the Nine-Dash Line and the 200-mile Economic Exclusionary Zone (EEZ). There are estimated billions, if not trillions,



Map 2. China's (Kuomintang) 11-dash line map of 1947 entitled "Map of South China Sea Islands." (Map provided by author.)

in the SCS, it will also limit its dependence on imported oil—yet another step in maximizing independence from outside nations.²⁹

Currently, the United Nations has rejected China's claim to the natural resources as well as China's claim over many of the small islands encompassed in the Nine-Dash Line and the 200mile EEZ. Recently, the United Nations rejected China's claim over the Mischief Reef, siding with the Filipino claim over the reef.³⁰ It is still unknown if China will continue to rebuke the United Nations' ruling in favor of the Filipinos. Looking through a PII perspective, China does not perceive the United Nations as a governing authority over China's claims in the SCS. China's PII perceives outside governing authorities and international laws as maintaining the status quo and thus detrimental to China's sovereignty and status.

Many nations, including the United States, claim China is seeking to become a hegemonic power in the region and perhaps the globe. The Trump Administration, in the *National Security Strategy of 2017*, and the Congressional Foreign Relations Committee have both stated that China seeks to become a hegemonic power at the expense of the international community. Viewed through a PII perspective, however,

China's actions in the SCS do not necessarily support the claim China seeks to become a hegemonic power.³¹ Throughout the imperialization of China, starting with the Opium Wars, China was attacked and exploited by imperial powers via seaports and waterways. Therefore, the United States Executive and Legislative branches' assessment of China's intentions in the SCS does not empathize with China's past imperial trauma. China seeks to claim the SCS to strengthen sovereignty and status internationally for its security. China does seek to alter the status quo, but that does not mean China seeks to rule over the region. The status quo, from a Chinese perspective, is superpowers preying on China.³² Therefore, from a Post-Imperial Ideology perspective, China's actions in the SCS do seek to alter the status quo-meaning China is no longer preyed upon by foreign powers from the sea.33

Conclusion

China's naval expansion into the SCS is a substantial security concern for the international community. The SCS's maritime shipping lanes are a vital artery for oil shipping and international trade. China's regional neighbors and the United States perceive China as a threat. The United States' Congress and President fear China's historic rise and claim China seeks hegemony over the region at the expense of the international committee. Through a PII perspective, however, one can come to a different conclusion regarding China's intentions in the SCS.

China does seek to alter the international status quo. China does seek to maximize status and sovereignty. These are all logical reasons for China's naval expansion in the SCS. Seen through a PII perspective, however, maximizing status and sovereignty and altering the status quo do not necessarily mean China is seeking to become a hegemonic power with regional and global dominance. China's naval expansion in the SCS is to secure China from outside threats-the same threats that forced China to sign treaties surrendering claim to Hong Kong. The treaties also established treaty ports where imperial powers abused Chinese sovereignty. The past imperial transgressions shape China's contemporary actions and will affect how China treats the international community in the future.³⁴ Understanding China's past through a PII perspective provides another means for U.S. policy makers to analyze China's intentions for naval expansion in the SCS.

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US

Artificial Intelligence in the Future Operating Environment

Why every Marine needs to understand emerging technologies in the era of great power competition

by GySgt David Nass

hat is Artificial Intelligence (AI)? "Frontier technologies," which generally includes AI, bio-technology, quantum computing, 5G, and next generation hardware, will drastically affect the future Marine Corps. It is important to focus on AI because, in many ways, it is the glue among all these emerging technologies. The DOD defines AI as "the ability of machines to perform tasks that normally require human technology-whether digitally or as the smart software behind autonomous physical systems."1 While the ideas for AI date back as far as 1956, AI has seen significant advances in the last fifteen years. Underpinned by immense advances in computer processing power (reference Moore's Law), AI uses algorithms and high-speed computing to analyze and process large amounts of data in order to recognize patterns, draw conclusions, make a prediction, or take an action. A basic example may help to differentiate between AI's current capabilities and theoretical capabilities. Currently, a computer can be "trained" to recognize a tank in an image or video by feeding it thousands of pictures of tanks. By "learning" the visual cues of a tank, the computer is then able to identify any tank in a new picture the computer has not seen. A second example

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is a self-driving car from Tesla, which will use AI to constantly scan the data of millions of previously driven miles and situations to make the right decision when presented with a red light, pedestrian, or erratic human driver.²

Exponential growth of AI technologies and applications, coupled with rapidly falling costs of computing power and global connectivity, will inevitably increase the speed of technological disruption across every segment of both government and private industry. This includes those industries once controlled exclusively by governments and their militaries. Recent advancements include:

• A flight simulation AI program created on a \$35 Raspberry Pi computer now routinely beats the world's best human pilots.³

• Numerous companies manufacture earbuds that allow for near realtime language translation. One set with the



A high-speed computer, programmed with the right algorithm, can "learn" to recognize a picture of a tank or fighting vehicle but requires vast amounts of imagery (data) to "learn" from. (Photo by Cpl Justin Updegraff.)

ability to translate over 40 languages can be purchased on Amazon for a cost of just over \$200.⁴

• In the summer of 2019, Chinese company DJI unveiled the Manifold 2 hardware adapter for its drone lines that enables a user to fly the drone autonomously, analyze motions, and utilize computer vision to identify objects in the screen—all for a cost of \$1,300.⁵

Friendly Use of AI

The Marine Corps' *Force Design* 2030 identifies, "the individual/force element which shoots first has a decisive advantage."⁷ While AI will eventually affect every area of the military, every Marine should view AI as a means to become *more efficient and lethal*. Using AI to gain efficiency will give Marines more time to conduct the tasks in each MOS that require the most focus, have the highest risk, or lead to an overall reduced cognitive load. Higher lethality will ensure we have a clear understanding of the battlefield and are able to strike first where needed.

We ask more of a Marine today than at any point in the past. Much of this is because of the increase in technology, communications, and complexity of our systems and processes. By taking a detailed look at each of our MOS, we could identify activities that are the most time intensive and focus AI on these areas to become *more efficient*.

• Using AI-driven predictive maintenance on our aircraft and vehicles, we could identify when a small maintenance task should be conducted or parts stockpiled in advance to prevent a long-duration deadline.

• Autonomous drones, vehicles, and ships could move supplies and equipment quicker than manned platforms, reducing risk for our Marines and decreasing the time needed to resupply our front line troops.

• Autonomous human performance software and wearable solutions could identify sleep, nutrition, and activity patterns that lead to peak cognitive performance and prevent injuries. In his book *Ghost Fleet*, P.W. Singer envisions a future where service members wear "vis glasses," giving them a holo-



Effective artificial intelligence and machine learning require humans to write code and upload data. (Photo by Cpl Brandon Martinez.)

graphic display of heart rate, sleep levels, and nutrition. Service members are prompted to eat or take a supplement to maintain peak focus and performance while fatigued.⁸

Artificial intelligence will also make us *more lethal* by improving the find, fix, finish, exploit, analyze, and disseminate process.

• Autonomous image recognition from a satellite, aircraft, or ground sensor will decrease the time to identify, recognize, and confirm an enemy element, allowing our future long range precision fires to have first strike lethal effects.

• Across a broad spectrum of mission sets where Marines are conducting irregular warfare, language processing and artificial intelligence can scrape social media and local news sources to sense local sentiment for or against U.S. initiatives, identify malign actors, and geo-locate potential targets.

• AI-enabled information operations can create and disseminate messaging to a wide audience in numerous languages.

Adversary Use of AI

While AI and emerging technologies as a whole will make Marines more efficient and lethal, one of the biggest reasons every Marine must understand these technologies is to understand what our adversaries may be doing to us. The same technologies we are developing are also being developed by great power competitors. In 2018, China released its "Next Generational Artificial Intelligence Development Plan," with the stated objective of achieving worldleading AI theories, technologies, and applications by 2030.9 Viewed from a solely friendly capability lens, Marines only need to understand the AI technologies in their specific MOS. If viewed from the lens of the adversary, however, every Marine, either deployed or in garrison, must understand the full scope of adversary capabilities.

In addition to discussing the need to strike first, Force Design 2030 also identified that forces "able to operate inside an adversary's long-range precision fire weapons engagement zone are more operationally relevant."10 While forward deployed in an EABO, Marines unaware of the imagery intelligence capabilities of our adversaries may park a vehicle or forget to camouflage supplies that allow our adversaries to quickly identify a forward Marine position. In the worst case scenario, this allows the enemy to strike first, using any number of current or future long-range weapons systems. In a nonkinetic situation, the enemy now knows

where we are operating and is able to move additional intelligence assets to monitor and identify our activities without us knowing.

Both China and Russia are exporting digital surveillance technologies. China is at the forefront of facial identification and has been using it internally for many years. Now, they are exporting their facial recognition hardware with AI software to countries around the world.¹¹ These technologies will be used by our adversaries to monitor or identify our activity abroad. A Marine Raider who posts a picture on Facebook and then travels to southwest Asia or central Africa could be easily identified, allowing our adversaries to identify a MARSOC footprint in an otherwise unknown country or region. The same digital social media and open source scraping tools we can use to our advantage will be used against both our garrison and deployed Marines to identify locations, pictures, associates, capabilities, and vulnerabilities.

Partner and Host Nation Use of AI

The third focus area is partner and host nation use of AI. As Marines deploy forward, we are almost always in a combined or partnered environment, working closely with allies, coalition members, or training a local national partner nation force. As AI technologies advance and become increasingly affordable, our allies and partners will be using them on a daily basis. As the world's premiere fighting force, our allies and partners expect us to be experts in intelligence, technology, and warfighting. To advise and assist these partner forces, we must understand the technological environment we are working in. If a partner force is using an AI technology and we do not know the capabilities, they may use it in a manner that compromises a mission, creating added risk to our force.

Not only will the partnered or allied militaries we work with have these technologies but so too will the host nation infrastructure we operate in. How will our most junior Marines react to sharing the roadway with a self-driving car or encountering a medical or store delivery robot while on a foot patrol? How will these developments shape rules of engagement and information operations? Moreover, will our Marines be able to recognize both the hardware and software of an AI system that will exist in everyday life and could be utilized, hacked, or compromised by our adversaries?

Two Recommendations for the Future

Train and Educate the Force. Training and educating the force on how AI and other emerging technologies work must be included in everything from entry level schools to pre-deployment certification exercises. This training and education should allow Marines to master friendly technology, teach partner nation technology, and understanding any adversary technology capability our Marines will encounter on a MEU, deployment, contingency mission, or during an EABO.

Our middle- to upper-level leaders must understand both the opportunities and threats of AI and other frontier technologies. Since many leaders did not have these technologies earlier in mission for an AI technology, senior leaders will know what questions to ask to ensure the technology is used appropriately.

Education of our small unit leaders must be a continuum throughout their careers. As technology becomes more and more complex, spiral learning will be critical to ensure that our Marines and small unit leaders comprehend and master future technologies. Just like our senior leaders, our small unit leaders must also be educated on the ethical implications of using AI systems or autonomous weapons as well as understanding how or where AI systems may fail or provide unreliable information. Our small unit leaders must also understand their role in educating the force as a whole so that every Marine understands how their small actions could be detected by our enemy or used against us in the future.

Lastly, our training must also imitate our future operating environment. Just as a degraded communications environment has become a standard element of training, we must implement the other

As our Marines prepare and train to operate inside the weapons engagement zone of our enemies in an EABO setting, they should face an adversary appropriate for those likely deployments.

their careers, they may be reluctant to accept or employ them on the modern battlefield. Middle- to upper-level leaders should not hesitate to schedule and attend executive AI courses or conferences. These courses and conferences will allow commanders and senior enlisted leaders to drill down on AI and data science into the many subcategories of AI including computer vision, machine and deep learning, and natural language processing. They will also educate commanders on the critical aspects of AI ethics, AI limitations, and potential for error. This knowledge will help our leaders make important decisions for their command. When subordinate leaders are seeking per-

types of technologies our adversaries may have. As our Marines prepare and train to operate inside the weapons engagement zone of our enemies in an EABO setting, they should face an adversary appropriate for those likely deployments. Marines should be challenged in an environment where the enemy may have the ability to conduct the find, fix, finish, exploit, analyze, and disseminate process faster than we can, where the enemy can quickly control the narrative through information, where the local population or host nation forces are using advanced technologies, and where Marines are challenged by autonomous enemy and partner nation systems-forcing them to make appro-



What level of access to our information systems can we share with allies and partner nation forces? (Photo by Cpl Brandon Martinez.)

priate decisions. Future training at the lowest levels should include:

• Robust red cells with the experience and expertise to incorporate near peer competitor technologies into adversary's capabilities.

• Host nation forces equipped with advanced technologies such as drones, autonomous vehicles, or social media scraping computer applications.

• Electronic and visual signals management. Require units to fly drones over their field formations to provide small unit leaders with the knowledge of how easily their force could be recognized by adversary space or unmanned aerial systems.

• A robust identify management program. Educate every Marine on how their online presence could be used against them for facial recognition, predictive analysis of likely decisions, or identifying individual preferences for intelligence targeting.

Ground-Up Innovation. In his 2017 work AI Superpowers: China, Silicon Valley, and the New World Order, author and technologist Kai-Fu Lee asserts that most AI breakthroughs will not come out of computer science labs or tech firms but from "down-to-earth, profithungry entrepreneurs teaming up with AI experts to bring the transformative power of deep learning to bear on realworld industries.^{"12} In order to truly find the technologies that give our force the most lethality and most efficiency, we must create a culture of innovation, encouraging our small unit leaders to become "AI entrepreneurs" and develop bottom up AI uses and initiatives.

In 2008, MCO 3900.17 was signed, defining the Marine Corps Urgent Needs Process (UNS) and formalizing an avenue for the warfighter to fill an urgent capability gap.¹³ The UNS was used countless times by our warfighters to get the right technology and equipment for their mission. Continuing this agility and flexibility into the AI age, we must create and encourage Marines to brainstorm and design ideas for our force to use future technologies to improve our efficiency and lethality. These ideas may not fill a critical gap like the UNS but instead provide an opportunity and enable the Marine Corps to connect the ground operator to academia or industry expert, resulting in a better Marine Corps tomorrow. These initiatives, in addition to current MARSOC, Marine Corps, DOD, and United States Government programs will help us educate the force, develop future agile and innovative leaders, and maintain the competitive advantage against any adversary.

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Irregular Warfare

Then and now by Maj David Pummell

Irregular Warfare: A violent struggle among state and non-state actors for legitimacy and influence over the relevant population(s). Also called IW.¹

hat is Irregular Warfare (IW)? Initially framing IW doctrinally may help develop a logical answer on how the Marine Corps can best support the National Defense Strategy through an IW approach. The cornerstone Joint Publication, JP-1 Doctrine for the Armed Forces of the United States, describes warfare in two purest forms: traditional and irregular. Traditional warfare is defined as a violent struggle between nation-states or coali-

tions and alliances of nation states. This has been the preeminent form of warfare since the mid-1600s, which evolved from the central German region east of the Rhine River—described as Westphalia. Napoleon Bonaparte matured this form of warfare with his Prussia campaigns. IW earned the title to highlight its non-Westphalian context. The strategic point of IW is to gain or maintain control or influence over, and the support of, a relevant population.

The National Defense Strategy (NDS) released in 2018 places emphasis on great power competition. Competition is not clearly defined. In the conflict continuum, competition is placed between the >Maj Pummell is a retired Explosive Ordnance Disposal Officer who spent the majority of his career supporting Force Reconnaissance and Special Operations units. As a civilian, he currently serves as a MARSOC Strategist.

bookends of peace and war. Joint Doctrine Note 1-19 (JDN 1-19) "Competition Continuum" was released in June 2019 and describes the range of cooperation, adversarial competition below armed conflict, and then armed conflict. Competition below armed conflict will take various forms but tends to occur over an extended period. A couple of the more famous competition periods earned titles such as The Great Game, the period in the mid-1800s played out in Central Asia between Victorian England and Tsarist Russia. A modern version, titled The Cold War, was a period of competition between the Soviet Bloc countries and the U.S.-led Western

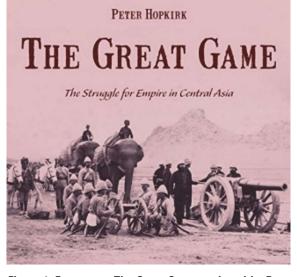


Figure 1. Front cover The Great Game authored by Peter Hopkirk. (Figure provided by author.)

powers from 1945 to 1990. The critical facets of competition are the whole of government approach and appreciation of the competition calculus that understands the threshold of risk and redlines for escalation to avoid a transition to conflict. (See Figure 1.)

IW has been conducted under many titles; the shortlist includes small wars, counter insurgency, guerilla warfare, unconventional warfare, asymmetric warfare, and operations in the grey zone. This lexicon can initially be confusing, but once we understand the hierarchy of IW, the terms present common functions and approaches. They may best fit as individual operations and activities under the overarching term of IW. (See Figure 2 on next page.)

A summary of the Irregular Warfare Annex to the *National Defense Strategy* was released in October 2020. IW is a persistent reality requiring the application of valued resources from across the U.S. Government. IW can be successful when those resources are applied well in advance to shape and influence.

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 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.²

Our Nation's enemies, adversaries, and competitors apply constant pressure through competition

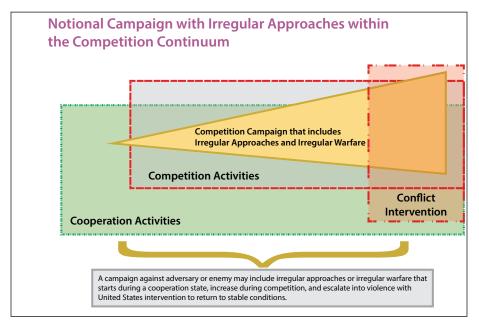


Figure 2. JP 3-05 Special Operations irregular approaches in competition. (Figure provided by author.)

across the world. Both state and nonstate actors use IW in the various forms to achieve their objectives. The United States must engage in competition as a form of IW and change the calculus and desire for the adversary to expand and influence.

One of the critical elements of winning in competition is the development and sustainment of strong alliances and partnerships. Empowering regional partners and creating a synergy between allies builds an enduring strategic approach to apply power against the adversary.

A thorough understanding of the contemporary operating environment illuminates the opportunities and defines the risk formula of risk to mission, force, and politics. Applying the strategic approach in competition to seize on the opportunities while managing risk will keep the effort from escalating into conflict by crossing an unacceptable threshold.

The challenge of maintaining a capable IW force is the requirement not to neglect or degrade the capability to conduct traditional warfare with the rapid strike options needed to win. To comprehend the requirements of IW today, it is important to understand the history and diversity of IW. History will not provide the solution for today, but it will add a deeper understanding and value to the formula for success. Since many examples took place during the "analog age," how would those same scenarios



Figure 3. 1805 Battle of Derna. (Credit: U.S. Marine Corps History Division.)

play out today in the "digital age" across all domains that present both new opportunities and risk. Looking at a few historical and international examples then narrowing the scope to United States. IW involvement will illuminate those trends of success and key mistakes that exhaust limited and precious resources.

During the American Revolutionary War (1775–1783), the Continental Army was pitched against the experienced British force. Francis Marion was a Continental Army officer operating in the South Carolina region using guerilla tactics against the British. Not committing his force to frontal attacks, Francis Marion wore down the larger British force with a campaign of surprise attacks, ambushes, and raids before then withdrawing into the South Carolina swamplands. His force was able to sustain the pressure against the British by subsisting off the land and cooperating with the local population by earning their trust. A British colonel who was repeatedly unsuccessful against Marion Francis's Irregular Force referred to him as the "Swamp Fox."

All Marines are at least passingly familiar with the Barbary Pirates and the Marine Corps' participation during that campaign. The Barbary Wars were a series of conflicts in the late 1800s to early 1900s involving the United States against the Barbary States, specifically Tunis, Algiers, and Tripoli in North Africa. The First Barbary War was conducted from 1801–1805; this was mainly a naval war where the United States fought to secure free trade, navigation, and security of the seas. (See Figure 3.)

It was during the First Barbary War Lt Presley O'Bannon and a handful of Marines recruited and trained a mercenary army that marched 521 miles through the African desert from Alexandria, Egypt, to Derna, Tripoli, to achieve a decisive victory against a much greater force in the defense.

The Second Barbary War took place in 1815; this war was against the regional pirates who impeded freedom of the seas and demanded tribute payments for passing shipping. The United States and allied European countries countered the pirates with superior ships, cutting-edge nautical technology, and weaponry of the period.

Therefore, it could be said that the campaigns of the Swamp Fox and the Barbary Wars, specifically the Battle of Derna, help set a baseline for IW. The common elements of a small, welltrained, and equipped force, departing from traditional warfare, partnered with an indigenous force as a force-multiplier operating in austere conditions involving asymmetric techniques are found across the majority of IW case studies. Elements and variations of these conditions remain present in the IW spectrum today and how we analyze the elements of IW in the multi-domain environment.

Starting in 1889 lasting until 1902, the Second Boer War was an irregular war in its purest form; it lasted thirteen years, pitching a guerilla force, the Boers, against the standing British Army. "Boers," the Afrikaans

term for farmers, used raiding tactics in plain clothes then blended back into the local population. This is also the origin of the term commando, describing the Boer militia force. The Dutch East India Company instituted "Commando Law" in the early settlement period, requiring the Boers to equip themselves with horses and firearms to defend the settlements. Thus, groups of mounted militia were organized into "commando" units. During the Second Boer War, commandos numbered in the range of 25,000 and used the tactics of marksmanship, tracking, camouflage, and concealment against a British force of over 450,000 conventional soldiers.

Lord Kitchener, initially Chief of Staff and then Commander of the British Expeditionary Force, applied a series of tactics against the Boers designed to break their will by restricting their freedom of movement and ability to blend into the supportive local population. To restrict the movement, Kitchener constructed over 8,000 blockhouses, usually within line of sight of each other, combined with the employment of barbed-wire fences and mounted patrols across the Transvaal. Supporting the blockhouse strategy, Kitchener attempted to further remove local support from the Boers by creating internment camps for the local population—also described as concentration camps. Under horrid conditions, large amounts of civilians



Figure 4. River patrol with the indigenous raft in Malaya circa the 1950s. (Credit: Special Air Service Regimental Association.)

were interned into 46 camps without the appropriate level of medical care or nutrition, and disease was rampant.

The Boer War ended by Treaty in May of 1902. The British learned that the only terrain they controlled was the terrain they physically occupied, so adopting the tactics of denial, persistent pressure, and containment brought the Boers to the peace table. A British win came at a tremendous cost to both sides. The British used the lessons learned from the Boer War in their following involvement in irregular wars such as the Malayan Emergency, where the IW operations and activities were conducted in a maritime environment.³ (See Figure 4.)

The United States was involved in Nicaragua for over twenty years (1909–1933). To achieve the objectives, the United States synchronized several lines of effort for the strategic approach. The establishment of neutral zones was designed to protect American lives and property while the conduct of security operations separated and

disarmed the various political combatants. The endstate was a successful election process resulting in free elections in 1928 and 1932. The Marines simultaneously trained and organized the Nicaraguan military while conducting a counterinsurgency campaign targeting the key combatants such as Augusto C. Sandino. (See Figure 5.)

One of the elements to success in Nicaragua was the "whole of government approach" by the United States in applying both military and diplomatic power. The military approach was to



Figure 5. Marines in Nicaragua capture Sandino's colors. (Credit: Marine Corps History Division.)

secure the key terrain while relentlessly pursuing the agitators to deny them access to the local population, a key source of support.

A significant factor of the Nicaragua Campaign was the use of the Marine Brigades' organic airpower for combat and logistic support. The aviation support provided direct casualty evacuation, assault support, logistic support, and close air support.⁴ Based upon the lessons learned from the campaign, the Marine Corps more than doubled its small wars formal instruction from 9 hours in 1925 to 94 hours in 1935 reinforcing the value of the lessons that contributed to the *Small Wars Manual* later published in 1940.

The Marine Corps approach to Vietnam was complex. It sought to contain the fluid insurgency where the center of gravity was again the population. The combination of large conventional operations gave the focused counterinsurgency efforts and distributed smaller forces time and space to organize and establish rapport with the population. In 1967, the United States established the Civil Operations and Revolutionary Development Support (CORDS). CORDS facilitated the specific military organization as part of the whole of government approach. CORDS was a pioneering effort to unify the military with other components of the government. Numerous programs existed within the architecture of CORDS designed to defeat the insurgency such as the Provisional Reconnaissance Units. One that has gained notoriety is the PHEONIX program. It is important to use accurate references when researching PHEONIX; based upon some of the unclassified information available, both fiction and nonfiction PHEONIX has developed somewhat of a controversial history. PHEONIX was not an assassination program as described in some documents. U.S. advisors assisted Vietnamese partners in finding, fixing, and finishing key influencers of the insurgent networks. The finishing was often kinetic, but finishing solutions also included imprisonment. The challenge of the program was the distributed elements across Vietnam working with partner forces that would often take independent action. This effort was filled with both success and failure. The partnered concept was similarly repeated in Afghanistan with the various Afghan Militia and local police groups; based upon lessons learned from Vietnam, the effort was considerably more successful, but there is still debate on the enduring effect. (See Figure 6.)

In 2004, the Honorable James Webb, former Senator of Virginia, visited the Marine forces in Afghanistan. Senator Webb, a former Marine Corps officer, received the Navy Cross during the Vietnam War. After completing a few days of battlefield circulation in Afghanistan, he concluded his trip with an assessment stating that you could remove the names of the tribes and villages in Helmand province and the counterinsurgency problem set would almost be an identical problem set to that of Vietnam.

To give the historical examples highlighted in this article the justice they deserve, deeper, individual study is required. They do illuminate the consistent trends in IW over decades that set the stage for the discussion of



Figure 6. Capt Andrew Finlayson with members of a provisional reconnaissance unit (1969). (Credit: Col Andrew Finlayson, USMC[Ret].)

conducting modern IW in a fast-paced multi-domain environment. Depicting IW in the current operating environment is informed by a review of the *Small Wars Manual*, and a study of the adversarial approach of both China and Russia.

The Marine Corps' role in the series of small wars in the early years of the 20th century placed the Marine Corps in a position to be well suited for IW based upon its expeditionary nature and connection with naval power. Lessons from operations spanning from 1890 to 1930 in central and South America in a series of documents were published on the small wars culminating in 1940 with the release of the *Small Wars Manual*.

The classic *Small Wars Manual* remains relevant and educates the force on the subject, combined with threat analysis of an adversary and comprehension of the contemporary operating environment an IW mission concept can be developed for that specific environment and threat with clearly defined efforts and endstate.

In 1995, two Chinese People's Liberation Army colonels authored a book titled "Unrestricted Warfare." Colonels Qiao Liang and Wang Xiangsui followed the tenants of Sun Tzu and the "Art of War" and devised an approach to support China's goal of being the global superpower by 2049.5 Their intent is to win without fighting, a "War without gunsmoke." This is accomplished through a series of strategic efforts that fall below the threshold of conflict for the United States. The Chinese types of warfare are categorized into the three mutually supporting warfare's: economic warfare, the use of international loans and financial manipulation to gain influence and achieve strategic goals; network warfare, the manipulation of all forms of media; and lawfare, designed to manipulate international law, norms, policies targeting the abroad audience. These types of warfare operationalized through the Chinese "One Belt One Road" initiative provide the global expansion for strategic investments. This is executed by a "Port, Park, City" plan to invest in a nation of interest by financing and building a port, then a

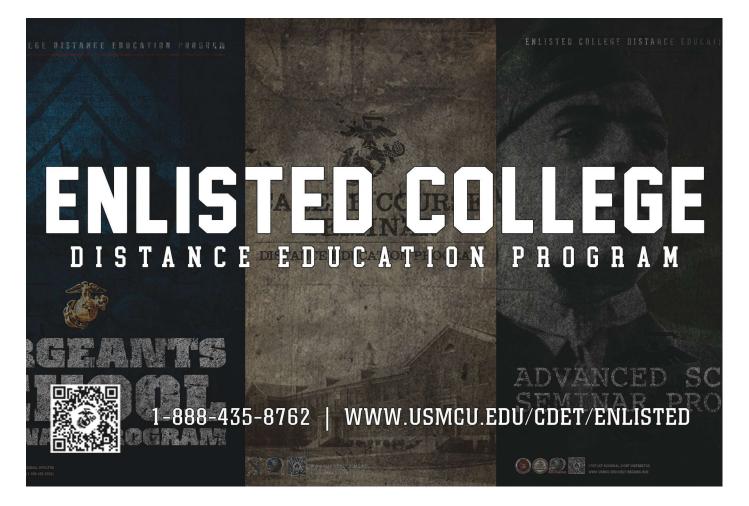
park to support the port population, which in time expands into a city. The city evolves into a sequential plan of "Safe City, Smart City," connecting the city to the Chinese digital enterprises through Chinese owned security cameras systems and communication networks. This is a template of adversarial competition. What can the United States do to change the adversarial competition calculus below the threshold of conflict? This is one style of modern Irregular Warfare.⁶

The Russian approach to great power is different from the Chinese; it could be described as less methodical and implemented on a shorter turn in the competition continuum. It has become a phrase among strategists regarding Russia: "When the little Green Men show up, you have failed in the competition." The Little Green Men and the Russian IW approach tie directly to the Gerasimov Doctrine.⁷ The Russian Chief of the General Staff, Valery Gerasimov, drafted

a series of articles laying out his views on Russian security concerns and the future operating environment. Shortly after publishing the doctrine, the Little Green Men showed up in Crimea in 2014 to support the Russian sponsored insurrection of Ukraine. Defined as "Hybrid Warfare," using a blend of traditional and IW, Russia is strengthening their posture in both the near and far abroad regions. The Gerasimov Doctrine uses military power detached from the government; the traditional term would be mercenary, but the employment is more complex and operates in the "Gray Zone." The use of Russian special operations and intelligence operatives to apply an adaptive approach sets in motion a now proven design for regime change. The use of covert and clandestine means justifies response on the world stage for the sequential use of overt military power. The sterile uniformed military presence removes an immediate affiliation to a government-sanctioned action.

The larger overt military operation is then conducted to achieve the endstate.⁸ Gerasimov's view of the operating environment is that the United States is a strategic threat to Russia. This is a second style of modern IW.

Through a formula of historical study, lessons learned (in some cases relearned), and threat assessments, a concept for applying the Marine Corps power in competition and conflict is framed. Meeting the vision of the Commandant's Planning Guidance, a maritime IW approach provides an adaptable capability to apply toward great power competition, crisis response, and conflict. A maritime IW force shaping and influencing the littoral region coordinated with the larger naval force securing the sea space connected across the all-domain environment depicts a force modernization concept that meets the requirements of the National Defense Strategy and supporting Irregular Warfare Annex. This type of strategic



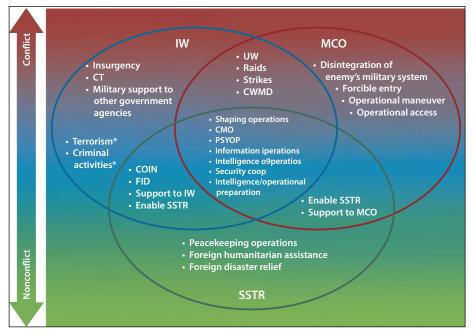


Figure 7. RAND, maritime irregular warfare venn diagram. (Credit: RAND Corporation.)

projection provides the approach needed to connect with key allies and partners that can influence an adversary's risk calculus and desire to expand in the critical regions. (See Figure 7.)

The Maritime IW capability ensures all areas from land to sea are protected; the maritime region that often creates a gap and opportunity for the adversary will then deny freedom of movement in the maritime regions. The primary tasks of the Maritime IW force are to connect to the larger naval force patrolling the open seaways, increase the capability and capacity of ally and partner maritime operations, and deny freedom of movement to the adversary or insurgent that rely upon the maritime region for logistic and operational movements. Historical maritime IW operations include but are not limited to foreign internal defense, counterinsurgency, unconventional warfare, counter-piracy, and counter-narcotics.

The Marine Corps is in the position to develop and sustain regional maritime partners and allies through multiple lines of effort executed simultaneously. Developing a maritime overarching approach that connects MARSOC forward elements with their networks that have been developed over years, the U.S. Marine Corps Security Guard Detachments globally postured at the U.S. Embassies and rotational MAGTF deployments providing the combat power to support National Defense Requirements through regional demonstrations, international exercises, and other amphibious operations in the modern operating environment. This approach creates a sustainable multi-faceted capability that reaches out to the joint, interagency, and multi-national partners.

Distribution of the MAGTF across the region is executed through the Marine Corps Concepts Littoral Operations in a Contested Environment and Expeditionary Advanced Base Operations. The Marine Littoral Regiment (MLR) would capitalize upon the regional networks developed by MARSOC. The MARSOC elements would be in a position to assist with the reception, staging, onward movement, and integration of the MLR elements and fulfill information requirements as the elements deploy. MARSOC would then provide indications, warnings, and intelligence updates as the adversary monitors the MLR movements and reacts to the changes in the regional force posture.

Liaison officers or elements would then work directly with the regional U.S. government agencies to complete the "whole of government" approach further expanding the maritime network and capability. This layered approach would support the National Defense Requirements across the range of cooperation, competition, and conflict in the maritime regions.

The history and concepts illustrate the diversity of irregular warfare and implications in a maritime environment. The diversity of operations range from countering small insurgent elements to nation-state adversaries in great power competition. There is not a single solution to "can" and place on the shelf to execute when needed, but there are elements "common to all" for a sound irregular warfare approach. Modernizing the force to operate and win in the contemplator operating environment will result in an irregular warfare model integrating all domains.

Notes

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We Are Not Inventory

Talent management for next-generation warfare by LtCol Gregory DeMarco

ur newest Commandant correctly diagnosed our talent management system as outdated,¹ making it difficult for our Corps to retain the best Marines necessary to confront our battlefield peers. This should worry because, as our previous Commandant said, "There's a war coming."² As Marines, we are expected to adapt to and overcome our enemy; however, we have unnecessarily put ourselves into a manpower box of our own making—a box that our enemy will happily exploit—and that we will pay for with the lives of our Marines if we do not solve it. Luckily, while many marketplace tools and incentives along with Congressional actions can help us solve these problems, there is one legal, simple, and cheap solution available to us right now that we can implement immediately and that is completely under our control. Words mean things, and the words we use should be chosen deliberately. Year after year, I have faithfully attended enlisted and officer manpower briefs and understand the many reasons why we see manpower gaps in our units. Yet, in each brief I have wondered, "Are our words the root of some of our behavior and manpower problems?" If we are all just inventory, why should we not expect behavior problems? If we are simple replaceable cogs and widgets, should we expect to retain our top talent? What difference will it make if we change the words we use?

Most of us, regardless of how many PowerPoint slides we have consumed about the value of the individual Marine, understand deep down that Marines take care of Marines. However, within our institution, we are little more >LtCol DeMarco is currently the Assistant Chief of Staff, G-5 at Marine Corps Forces Korea. He has previously commanded Marine Wing Headquarters Squadron-2, flew the EA-6B Prowler in Iraq and Afghanistan, is a Foreign Area Officer, and a former enlisted artilleryman. In additional to several staff billets, LtCol DeMarco has served with the 1st, 2d, and 3d MarDivs, as well as with the 1st and 2d MAWs.

than a six-digit alphanumeric code: a two-digit rank and four-digit MOS. According to the *38th Commandant's Planning Guidance*,

> Our manpower system was designed in the industrial era to produce mass, not quality. We assumed that quantity of personnel was the most important element of the system, and that workers (Marines) are all essentially interchangeable.³

These six-digit numbers are very easy for our headquarters to work with, make assignments, or track. Nearly every assignment, either on the unit table of organization, as an individual augment, or report, derives from manning documents or rosters that track some status of a series of these six-digit numbers. geant billet). The administrators and monitors balance thousands of competing requirements in their never-ending shell game called the orders-writing process and demonstrate on a daily basis the flexible-problem-solving-missionaccomplishment approach we expect of Marines. Still, the system still operates primarily on the premise that each of us are a six-digit number—nothing more, nothing less.

As my six-digit number changed since my enlistment in 1991 (eventually making it to an E4-0811), I have seen assignments with 1st, 2d, and 3d MarDivs, along with my flying tours in the MAWs. All the while, to the institution, I have always been inventory—a cog in the Marine Corps' machine. It

... we are little more than a six-digit alphanumeric code: a two-digit rank and four-digit MOS.

Occasionally, additional attributes are added (e.g., "Post-Command," or "German Speaker"), which narrows the available pool of candidates. Similarly, at times, sourcing rules occasionally permit the "one-up, one-down" rule, meaning that the billet can be filled by a Marine whose rank is either one higher or one lower than the requirement (e.g., a staff sergeant, gunnery sergeant, or a master sergeant can fill a gunnery serhas never been the institution that kept me wearing green and coming to work; the jokes about the Marine Corps you hear today were common back then too. Instead, it was the people. The Marines I have worked with—the honest and less honest, the moral and morally challenged, the hard working and the ones who taught me everywhere they like to hide on board a ship—they have been the reason I stayed in the Corps, and it is likely the same with most of us who have been around for a while. To them, I have never been inventory. I have been around long enough to understand that the institution will never love you, and we should not expect it to. However, when we—publicly or privately—refer to our Marines as "inventory," what effect does it have downstream when attempting to retain the most talented? I posit that the best do not want to be treated as inventory, no matter the financial bonus tied to a contract. Additionally, we should not forget that Marines are smart-simply removing the word inventory from a few public briefs while retaining the concept behind a firewall will fail. Certainly, the material will get out, but regardless, the Marines will sniff it out; one constant throughout each generation of Marine I have met is they recognize hypocrisy when they see it.

If we are only inventory, negative incentives (non-judicial punishments or courts martial, for example) might prevent someone from taking illegal actions. However, if you want me to be my best, to believe in slogans such as "honor, courage, commitment," or even "to be a professional," what does it say when the Corps calls me an interchangeable six-digit component? As a squadron commander, if I state that I need three more E3/E4 0111s, I telegraph that I do not care about their quality—they are all interchangeable. How much more damaging is it for the Service to say that we "purchased your billet" or that we need to increase the "production" of 75xx's (aviators going through the "pipeline")? No one wants to think of themselves to have been purchased as an item on the shelf nor a product in the factory pipeline. I do not subscribe to the school that thinks everyone is special by any means, but I prefer to think of myself as human and not a widget (at least since SeniorDril-IInstructorStaffSergeantPilakowski—it was all one word back then-graduated me from recruit to Marine).

Certainly, our manpower model needs a method to forecast recruitment or to target incentives and, therefore, will always require reliable statistics. However, the greatest difficulty resides in making adjustments to our systems in



Are Marines simply "inventory," the output of industrial-age mass production, or something more? (Photo by Petty Officer 3rd Class David Cox.)

reconfiguring our computer programs, reports, manning documents, and interfaces with the joint community. While noble goals, I realize that these may require costly solutions.

Nevertheless, it is time for a thorough overhaul of our language, and this is freely available to us right now. First, develop consistent language originating from the Commandant that emphasizes the value of the Marine. Next, purge all briefs and references to terminology such as inventory, purchased billets, pipelines, and the like. Finally, charge all commanders to implement these changes throughout our commands. Changing our language, while free, will prove quite difficult unfortunately-entrenched habits die hard. Nevertheless, overtime, our language will change to reflect the will of our leadership. As an additional measure, we should take advantage of a Secretary of Defense fellowship or two and study how human resources tackles this problem in private industry and at major universities. Our problem is not unique to us: they both recruit and seek to retain top talent just like we do, they constantly try to increase employee (or student) buy-in (or spirit), and they develop their employees or have students in a study track.

We are not inventory—we are Marines. If we start from this premise, it may prove much easier to retain top talent and to "not accept mediocrity within the force."⁴ If we call our Marines professionals, we should not thoughtlessly treat them like widgets. There are many aspects to our manpower and talentmanagement systems that stand to be reviewed, but I suggest we start with the cheap, simple, and legal one—our language—to help our institution achieve our Commandant's vision of, "Demanding superior performance and enforcing high standards."⁵

Notes

1. Gen David H. Berger, 38th Commandant's Planning Guidance, (Washington, DC: 2019).

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3. 38th Commandant's Planning Guidance.

4. Ibid.

5. Ibid.



SOF and the ARG/MEU

Achieving asymmetric advantage by Maj Michael Stevens

"A BHAG—big hairy audacious goal, is a huge and daunting goal ... it is clear, compelling, and unifying ... a change-the-industry style goal."¹ —John Doerr in Measure What Matters

he strength of an institution can be measured by its willingness to question long-standing practices and approaches. The 2019 Commandant's Planning Guidance and Force Design 2030 are doing this, considering how the Amphibious Ready Group (ARG)/ MEU is signaled out for long overdue change.² Furthermore, a requirement for the MEU to successfully compete and achieve asymmetric advantage in the gray zone is noted-a key aspect in its transformation.³ Amplifying this change, recent discussion from the Commandant in the Marine Corps Gazette highlighted the criticality of persistent, relevant competition in the gray zone for the Service.⁴ However, the knowledge, expertise, and partnerships to effectively compete in the gray zone do not exist across the FMF.

The 2018 National Defense Strategy and National Military Strategy provide foundational guidance for U.S. special operations forces (USSOF) to enable the DOD to address particular challenges of great power competition (GPC) and achieve competitive advantage below armed conflict. Through USSOF's ability to create outsized effects, it generates options in competition that garner the United States a position of strength. A more complete, collaborative partnership with USSOF >Maj Stevens has ten years of special operations experience and holds an advanced degree in international policy from George Washington University.

is necessary to evolve the ARG/MEU's capabilities to achieve advantage in the gray zone, thus rebuilding the formation's relevance. The rationale follows and includes necessary changes for the ARG/MEU as well as areas of collaboration—all to strengthen the formation's value proposition to its Services and the Nation. Such analysis entails the entire formation, with a primary focus on the MEU as the more flexible element toward change.

A Changed Environment

U.S. traditional military responses have proven ineffective to address gray zone tactics. Our adversaries and competitors note the limitations of U.S. military power and understand our policy basis to employ military forces. U.S. military responses to aggression primarily consist of physical deterrence, strike delivery, and the sale of weapons to partners,⁵ yet none of these compel adversaries and competitors to deviate from their malicious actions in the gray zone.

Through the gray zone, hostile actors exploit the relative sanctity of under-governed spaces across physical, virtual, interstellar, and cognitive domains. These competitive spaces can be contested and denied realms, where freedom of action and influence is adroitly usurped through a combination of ambiguity, obfuscation, and a complex use of multiple elements of national power-all of which downplay a possible kinetic response.⁶ This helps to restrain the United States and its partners, as such a response becomes more alarming in environments with already heightened political risk, thus hastening the possibility of miscalculation. Further, the erosion of our technological superiority contributes, as competitors can contest our actions across all domains. With such factors increasing, the gray-zone actions of adversaries and competitors will continue, as these and other actions impose costs (notably sowing internal dissent) outside of combat that have a stronger effect on the United States and achieve their policy objectives.

Within U.Ŝ. Indo-Pacific Command (USINDO-PACOM), this is evident through Chinese aggression across multiple domains. China uses military and paramilitary forces to subvert alliance cohesion, erode societal resilience, and undermine our Nation's position on key issues through actions in the gray zone.7 Particularly, China's disinformation campaigns, its actions to contest a nation's sovereignty through ambiguous maritime altercations, building physical terrain, and utilization of political warfare to implant coercive means of Chinese influence across its regional neighbors-all are gray zone tactics China successfully executes through non-traditional use of force.⁸ Yet, none

of these tactics are challengeable by the ARG/MEU.

As witnessed over the last several years, provocative activities in the gray zone can rapidly emerge, signaling a need for credible contact layer forces to contest subversive actions while also managing a complex situation before it turns into a geopolitical crisis.⁹ The complexity of the gray zone is unpredictable in its escalation spikes, yet this does not spell opportunity for most blunt and surge forces, as their focus resides on armed conflict—ill-prepared for asymmetric engagement. This is the dilemma of the gray zone; it requires a responsive force with the ingenuity to contest asymmetric actions while also possessing the lethality, technicality, and persistency to manage escalation and deter aggression. This is the crisis response capability necessary for the modern era, which requires clear-eyed recognition across the Service.

Transformational Change

The ARG/MEU is predicated on naval power projection, with the ability to rapidly deploy crisis response-oriented forces to quell escalation or respond accordingly to combat operations amongst its capabilities. Yet, China focuses not on matching such power projection within USINDO-PACOM but on *denying* this capability from being employed.¹⁰ From its developments in precision weapons to low-intensity tactics in the gray zone, these means are highly successful in neutralizing a U.S. naval response. A new approach is necessary to compete.

U.S. Special Operations Command (USSOCOM) is in the midst of an organizational shift toward GPC, with a large focus on enabling competition below armed conflict. USSOF are extensively investing in irregular warfare as the capability to challenge the gray zone tactics of our adversaries and competitors.¹¹ To maximize USSOF's small footprint and collective punch as a joint force enabler, a closer partnership with SOF can enable the ARG/MEU to compete now in the gray zone. USSOF are the predominant element to achieve effects prior to the initiation of major conflict, as SOF can illuminate, deter, and deny the actions and hostile intent of adversaries and competitors through their wide range of statutory capabilities across all domains.

SOF-ARG/MEU in the gray zone

The ARG/MEU requires modernization to compete in the gray zone. Multiple areas to achieve closer SOF– ARG/MEU collaboration are to follow, with a focus on asymmetric capability,

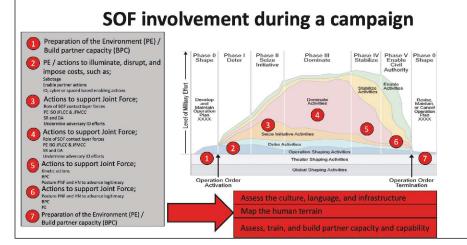


Figure 1. Terms in graphic are: JFLCC—Joint Force Landing Component Commander; JFMCC— Joint Force Maritime Component Commander; SR—Special Reconnaissance; DA—Direct Action; IO—Information Operations; PNF—Partner Nation Forces; and HN—Host Nation. For further understanding of terms, reference Joint Publications (JP) 3-31 Joint Land Operations (JFLCC term), JP 3-32 Joint Maritime Operations (JFMCC term), JP 3-05 Special Operations (SR, DA, as well as PE and BPC terms), and JP 3-13 Information Operations. (Graphic courtesy of author.)

exploring why SOF is necessary to the formation's growth.

The ARG/MEU executes a *reactive* operational approach, maintaining its readiness to respond as required. But the very character of this relationship inhibits the formation's functionality to address modern gray-zone tactics. As adversaries and competitors foment disorder through non-attributable gray zone tactics-such as proxy warfare, disinformation campaigns, and support to extremist activities-the ability to challenge these actions demands persistency, expertise, and relevance. To do this, USSOF applies a preemptive approach that shapes and influences environments to avert conflict and manage escalation at all levels of warfare. Known as an indirect approach, this method aims to address instability via partner actions by, with, and through local forces, aided by a deep understanding of regional and cultural dynamics.¹² This method strengthens regional alliances, reduces financial commitments through savings in persistency, and provides U.S. policy makers greater decision space while avoiding the political sensitivities of deploying U.S. forces en masse.

Of note, a means of partnership does exist through the USSOCOM Special Operations Forces Liaison Element (SOFLE) program with the ARG/MEU. The program has aided closer SOF-ARG/MEU integration and interoperability through greater responsiveness to combatant command campaign activities, a requirement that dates to its 2014 inception. Yet, the SOFLE program cannot be the means to evolve the ARG/MEU to counter coercive gray-zone tactics. Aside from limits in availability, the SOFLE suffers capability disparities because it lacks consistency in its application of SOF understanding toward gray-zone tactics.

Maritime Gray-Zone Actions

USINDO-PACOM's expansive maritime domain presents a region where the ARG/MEU is likely to encounter Chinese gray-zone tactics. If a hypothetical situation emerges where ambiguous Chinese forces challenge a regional neighbor with a rudimentary yet veiled littoral blockade, setting the way for an infiltration of irregular forces under a false narrative of legitimacy, would the ARG/MEU be capable of providing the necessary response? While the merits of this and other factors can be debated, the political sensitivity surrounding the issue will impact the ARG/MEU's ability to respond. As the formation is built toward a combat orientation, its size, speed, and capabilities challenge the ARG/MEU's engagement. The ARG/ MEU's capacity and brute strength are self-limiting factors in the gray zone; a finesse, precise, lethal force with a discreet application is necessary for asymmetric actions.

Through USSOF's low-visibility actions and capabilities, it conducts irregular warfare as it prepares environments and deters aggression to support a Geographic Combatant Command's (GCC) objectives. USSOF's access and placement to conduct preparation of the the situation warrants delicate response options. SOF use its increased access and resources to further illuminate the environment, leverage its relationships to enable a partner response because of political sensitivity, or impose multidomain or transregional costs through irregular means. Furthermore, SOF's ability to discredit illegitimate narratives is bolstered by its expansive target development, indigenous expertise, and adaptive in realtime processes that enable widespread flexibility and sweeping support across the U.S. National Command Authority.

Chinese Political Warfare

Another hypothetical situation could be this: a host of Chinese political warfare actions are occurring across an USINDO-PACOM country that is the location for an ARG/MEU security cooperation exercise. Chinese actions across political, economic, diplomatic,

One of USSOF's key attributes is mastery of the human domain. The ability to gain cognitive influence across this domain requires a persistent presence with access and placement ...

environment, build partner capacity, and execute asymmetric options—to include but not limited to surrogate use, sabotage, and other actions to degrade and disrupt the projection of national power—impose unique costs and place dilemmas upon adversaries and competitors to enable a competitive advantage for the United States. This array of activities provides greater options for U.S. policy makers but also is skillfully executed to sustain actions below armed conflict—right in the gray zone.

Through its global support networks and partnerships, SOF are well positioned to respond. SOF maintain an array of multi-purpose, low-visibility maritime vessels that operate across various sea surfaces. Here, such platforms are not to facilitate kinetic actions; rather, they sense and understand the environment, since the political sensitivity of informational, and cultural spheres are gaining momentum; in particular, a range of Chinese security forces are active within the country. Chinese forces span from defense industry engagement to a maritime, land, air, and cyber domain presence that includes actions with coastal mariners, infrastructure and development sectors, and civil aviation. This hypothetical nation is seeing degrees of both witting and unwitting capitulation to Chinese influence across its society.¹³

The ARG/MEU is representative of the U.S. strategic action and commitment to the hypothetical nation, with the capacity to serve as an illustrious example of U.S. inspiration. Despite the ARG/MEU's shining example to its host nation partners, the formation is ill-suited to counter Chinese political warfare. The duration of the brief exercise restrains ARG/MEU influence; here, the ability to counter and impose costs in this long game are of most significance. The MEU's isolation at-sea, albeit with short term disembarkments such as this, deny the formation the ability to truly shape their operating environments and domains. This largely nullifies their high-demand, low-density resources the necessary time to assess, characterize, and influence environments.

One of USSOF's key attributes is mastery of the human domain. The ability to gain cognitive influence across this domain requires a persistent presence with access and placement, enabled by extensive human-terrain expertise. USSOF expends extensive resources building resistance networks to counter gray-zone disinformation and deter hostilities through its multinational partnerships, which strengthen partner resiliency and national resolve to challenge Chinese political warfare. Further, SOF takes irregular actions to impose costs and create dilemmas on Chinese coercive behavior as required. SOF's efforts contribute to eroding competitor willpower to intervene, making these actions imprudent and unwise for its sponsors.

BHAG: Big Hairy Audacious Goal

A bolder, new approach is offered. This model positions the ARG/MEU for greater effectiveness, modernizing to meet the demands of gray zone activities and asymmetric warfare. It requires adaptive thinking, a preference of nonconformity over institutionalization, and a prominent focus on the success of the joint force.

The ARG/MEU adjusts its naval expeditionary readiness posture, thus becoming a more adaptive, networked, and distributed force. Through greater persistence and increased forward distribution, *select* ARG/MEU forces operate in prioritized areas where the formation supports gray zone activity. Such forward distribution occurs jointly with USSOF in a unified partnership as an enhanced force conducting asymmetric activities in the gray zone. In this capacity, SOF aid the ARG/MEU in gaining positions of global advantage much earlier, in all domains, to gain dominance in the decision cycle.

The MEU and USSOF can jointly develop capability that is purpose built to characterize and influence networks and environments, deter modern aggression, and maximize strengths toward greater responsiveness. Through this model, the MEU leverages SOF's global network, an optimized nexus that increases access, resources, and relevancy to a common cause.¹⁴ Such a means enables SOF to influence the strategic landscape for operation approval and amplify whole-of-government assistance across the national power sphere. Additionally, this forward distribution requires non-traditional deployment lengths and frequency, supportive of dynamic force employment and forward force maneuver in the 2018 NDS.¹⁵ When required by the GCC, distributed ARG/MEU forces can re-aggregate either at sea or another expeditionary location.

Yet for this to succeed, a change to the ARG/MEU's command and control (C2) structure is necessary. The formation's current approach to C2 focuses on delivering massed combat power ashore, while another unit commands ARG/ MEU forces during an operation. The gray zone's complex nature requires a well-honed, all-domain C2 capability that firmly understands the environment and creates options that maximize initiative through responsive and adaptive means, all while exercising authority over dynamic operations that span domains and levels of war. Through a joint, integrated command structure, the ARG/MEU is bolstered through

... the ARG/MEU is bolstered through SOF's global access ...

SOF's global access, information advantage, and ability to drive targeting enabled by its increased authorities and permissions. This leads to a more joint, interoperable force achieving asymmetric effects for the GCC through greater unified action, and is supportive of joint all-domain C2.

Further analysis of the organic MEU capability is also required to maximize effects achieved. A prioritization is to be on scalable, precise, and complementary forces that tangibly contribute to achieving advantage in the gray zone. USSOF would enable specific SOF integration and interoperability training with the ARG/MEU to occur prior to deployment, establishing relationships with forces that will share forward areas of

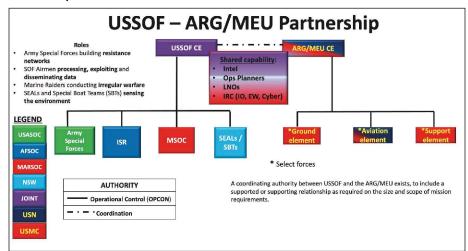


Figure 2. Figure depicts one possible example of an ARG/MEU–USSOF partnership. Terms are: CE—Command Element; USASOC—U.S. Army Special Operations Command; AFSOC— Air Force Special Operations Command; MARSOC—Marine Forces Special Operations Command; NSW—Naval Special Warfare Command; ISR—Intelligence, Surveillance, and Reconnaissance; MSOC—Marine Special Operations Company; LNOs—Liaison Officers; IRC—Information Related Capabilities; and EW—Electronic Warfare. (Graphic courtesy of author.)

operation, build partner capacity opportunities, and modernize crisis response means.

Setting the Conditions

To harness SOF's utilization of asymmetric warfare, the ARG/MEU requires greater flexibility from both its Navy and Marine Forces (NAVFOR/ MARFOR) higher headquarters. This dual-prong means of naval command has complicated the ARG/MEU-SOF relationship through its lack of SOF understanding and convoluted bureaucracy-a hindrance to SOF-ARG/MEU interoperability. Through greater collaboration between the theater special operations command (TSOC) and the NAVFOR/MARFOR, SOF and the ARG/MEU can more effectively address gray zone activity. Timely staff planning can support the development of an integrated operational approach that channels the capabilities of USSOF and the ARG/MEU to contest gray zone actions. This level of staff coordination requires substantial joint planning to develop the ends, ways, and means to achieve effects for the GCC, as gray zone activities can take significant time to plan operations, receive approvals, and execute-emphasizing the importance of a closer partnership between the TSOC and NAVFOR/MARFOR commands.

Service- and theater-level exercises serve as a great way to strengthen this operational-level relationship. With the Services focused on readiness towards near-peer combat operations, the level and type of naval exercises have intensified. However, many of these exercises are largely focused on major combat operations, missing the pivotal phases of shape and deter-where gray zone activity is at its peak. Failure to emphasize these phases may result in the naval Services missing this key area to strengthen joint lethality via gray zone actions. SOF are an able and willing partner, with resources at every SOF service component and TSOC to build SOF understanding through exercises.

Concepts also require greater analysis to enable SOF-ARG/MEU interoperable actions in the gray zone. As expeditionary advance base operations (EABO) unfurl in concept and execution, the access and understanding of USSOF's operations are critical in supporting EABO. This is where USSOF's indirect approach is instrumental, as the relationships that SOF build are vital to the success and survival of EABO platforms. Contrary to some ideas on the topic, it will not be EABO Marines foraging for food and supplies on desolate islands; rather, it will likely be the relationships that USSOF maintains with its partners to enable and set the conditions for EABO success. Through non-traditional support means, aided by SOF's low-visibility actions, EABO platforms can receive sustainment, timely intelligence, mobility support, and improvements in survivability necessary for their success across the conflict continuum.

Final Thoughts

The Services have interpreted GPC as a return to major combat operations. As strategic value in military strength certainly exists, it does not equate to relevance for all forces. The ARG/MEU remains a force fixated on readiness toward higher end combat operations, a posture that largely nullifies its utility in the gray zone. The complexities of the gray zone demand forces with persistency, can shape all-domains, and are competitively focused below armed conflict to impose a wider variety of costs and manage escalation. While crisis escalation is unpredictable, this modern era requires more innovative approaches to respond to aggression; size and strength alone have proven an ineffective deterrence toward asymmetric actions in the gray zone. China's cunning actions and non-attributable manner within the gray zone will continue in part as long as the United States presents traditional military responses as deterrence.

Our Nation needs forces that are globally integrated, can provide alldomain solutions across the conflict continuum, and enable a competitive advantage in support of joint forces. Together, with its spirit, resources, and expeditionary prowess, the ARG/ MEU can harness USSOF's asymmetric capabilities to compete in the gray zone. Multiple areas of cooperation exist for the ARG/MEU–SOF team to counter and combat malign behavior across the gray zone, to include bold ways that strengthen joint lethality. As our adversaries and competitors have learned to effectively sterilize the might of our military strength, adaption in our competitive approaches is necessary to deter, contain, and neutralize these actions below armed conflict. Yet, the willpower for daunting change must be resolute and ready to confront whatever obstacles lie ahead as the Service cannot build readiness for the gray zone alone.

Notes

1. John Doerr, *Measure What Matters: How Google, Bono, and the Gates Foundation Rock the World with OKRs*, (New York, NY: Portfolio Penguin, 2018).

2. Gen David H. Berger, *38th Commandant's Planning Guidance*, (Washington, DC: 2019); and Gen David H. Berger, *Force Design 2030*, (Washington, DC: 2020).

3. Force Design 2030. It is noted that some military theorists debate the use and existence of the terms gray zone, asymmetric warfare, and similar others. It is not beneficial to entertain such dialogue here, as extensive literature exists on these and other terms, as they are now widely accepted amongst DOD senior leaders.

4. Gen David H. Berger, "The Case for Change: Meeting the Principle Challenges Facing the Corps," *Marine Corps Gazette*, (Quantico, VA: June 2020).

5. Stephen M. Walt, *The Hell of Good Intentions: America's Foreign Policy Elite and the Decline of U.S. Primacy*, (New York, NY: Farrar, Straus and Giroux, 2018).

6. Adam L. Silverman, "Getting to the Left of Boom in 21st Century Warfare," *The Cipher Brief*, (July 2020), available at https://www. thecipherbrief.com.

7. Ross Babbage, "Winning Without Fighting: Chinese and Russian Political Warfare Campaigns and How the West Can Prevail: Volume I," (Washington, DC: Center for Strategic and Budgetary Assessments, 2019). Babbage's piece discusses the concept of political warfare and its utilization to undermine traditional means of Western power and achieve political objectives. Other similar approaches are unrestricted warfare and use of proxy forces to wage low intensity conflicts to enable sponsor plausible deniability and neutralize effects of Western powers and coalitions.

8. Ibid. Babbage defines political warfare as "diverse operations to influence, persuade, and coerce nation states, organizations, and individuals to operate in accord with one's strategic interests without employing kinetic force."

9. Department of Defense, Summary of the 2018 National Defense Strategy of the United States of America: Sharpening the American Military's Competitive Edge, (Washington, DC: 2018). The contact layer is a layer of the NDS's global operating model.

10. David Ignatius, "Think We Have Military Primacy Over China? Think Again," *Washington Post*, (May 2020), available at https://www. washingtonpost.com.

11. Important to note the unclassified Irregular Warfare Annex (2020) to the *NDS*, as it distinctly states a requirement for the Services and the joint force to institutionalize IW as a core competency.

12. The indirect approach is USSOF's method for working with partner forces through many of its statutory capabilities, to include unconventional warfare, foreign internal defense, and security force assistance. This approach empowers SOF partners at multiple levels, strengthening their resilience and capacity to lead in a conflict or prolonged struggle while USSOF remain in an advisory role.

13. "Winning without Fighting." Babbage notes multiple areas that Chinese political warfare influence is felt across a nation.

14. The Global SOF network is the ability of USSOF to create and sustain shared consciousness across an interconnected web of global SOF operators, teammates, and partners, imbued with empowered execution to maximize efforts towards an issue. Gen McChrystal's book, *Teams of Teams-New Rules of Engagement for a Complex World*, is an excellent source of further detail.

15. National Defense Strategy.

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2020 LtGen Barnard E. "Mick" Trainor Military Writing Award: Winner

Sleeper Cell Logistics

Sustaining new warfighting concepts by Capt Michael Sweeney

ean Westley paused for a moment to study his features in the bathroom mirror. If only his Marine buddies back home could see him now. He displayed none of the clean-cut disciplined characteristics instilled upon him by his instructors at Officer Candidate School. As he finished getting ready for the day, the reminiscing quickly led to a memory trail of how he arrived in his small South Landian apartment. It was almost five years earlier, and he was just finishing Logistics Officers Course. He had orders to an infantry unit on the East Coast and was busy finding a place to live and contemplating how to make a good first impression at his new unit when he was called into the commanding officer's office. Not knowing what to expect, he was surprised to find another senior officer there who had never addressed the class before.

The new officer introduced himself as Col Scott. True to his serious manner, Col Scott did not waste any time explaining why he was there.

Col Scott: "Lt Westley, as you are aware, for the past twenty years, the Corps has fo-cused on and excelled in providing combat service support in desert countries against an enemy who proved capable but ultimately could not match our fire power. However, a year ago several key members of the logistics community hypothesized that our logistical doctrine and methods have become dependent on air superiority and are not suited for a peer-to-peer conflict. To fix this, we have started a specialized logistical unit. Taking lessons learned from the Viet Minh during the First Indochina War, this new unit was developed to drastically increase the flexibility and redundancy in our supply chain. We operate a series of semi-covert caches hidden inside engagement areas.

>Capt Sweeney commissioned in May 2011. He is a Logistics Officer currently assigned to Marine Wing Support Squadron 172 and his current billet is Company Commander, Headquarters and Service Company. His previous tours include 1st Maintenance Battalion, Officer Candidates School, and Expeditionary Warfare School.



Distributed operations require more than simply moving the "iron mountain" of supplies. (Photo by LCpl Keenan Zelazoski.)

When activated, we provide the MAGTF with an initial supply of critical gear." 2ndLt Westley: "I don't understand. On what doctrine are these caches based?" Col Scott: "We've developed our own operating system that is entirely independent from all Marine Corps doctrine. This operating system allows us to cut through red tape and utilize unconventional logistical methods."

2ndLt Westley, looking visibly confused: "I'm sorry sir, but I still don't know who you are."

Col Scott: "We are Sleeper CELL."

The future fight will be different than the one fought for the past twenty years. It will require the Marine Corps to exercise its amphibious and expeditionary nature. All six warfighting functions will need to improve and adapt to support new warfighting concepts. Logistics will require changing more than just the physical location of the "iron mountain." Instead, the new form of logistics will require innovative solutions to increase redundancy and flexibility in the supply chain while decreasing the targetability and physical footprint of supply lines. This can be accomplished by dispersing the iron mountain across a series of unconventional and semicovert caches.

As Westley ate his breakfast, he continued reminiscing on his life changing encounter with Col Scott.

Col Scott: "A Sleeper CELL spot has opened up, and I'm offering it to you. Yes or no?"

2ndLt Westley: "I'm in."

Col Scott: "Good, pack your stuff. You're going back to school."

Westley skipped his Logistics Officers Course graduation and moved into temporary housing near Washington, DC, the next day. He would spend the next ten months at Defense Language Institute learning a language by day and being indoctrinated into Sleeper CELL by night. As a member, Westley would be considered his own Cache, Expeditionary Logistics Location, or CELL. Each CELL was strategically placed in a certain region of the world, chosen by its vicinity to certain geopolitical hotspots. Once in location, CELLs would blend into society, posing as students or young adults seeking work opportunities while discreetly overseeing the stockpiling of supplies. It was on location that the independent command and control nature of this specialized unit excelled. Unlike traditional Marine Corps logistics operations, CELLs were free to develop a storage and distribution system that best suited their location. These systems were not beholden to the cumbersome DOD supply chain. Instead, CELLs were free to buy local commercial products and encouraged to utilize local distribution networks to develop their stockpiles, sending reports back to Col Scott in Washington each month on the supplies that they had available. Col Scott updated the priority lists as necessary and the CELLs would adjust their caches accordingly, creating a fluid and evolving stockpile dependent on the concerns of Washington's policy makers.

The main thing all CELLs had in common was their mark. Each mark was an individual who was picked out by a certain intelligence agency based on the mark's ability to help influence the locals and procure certain items. Westley's mark was Mr. Smith. He was raised in a poor farming village but was motivated to make more of himself. He started a fabrication shop, and it slowly grew, thanks in part to the money and influence the United States gave him for the support.

In addition to language training, Westley also received specialized training to ensure his success as a CELL. This training included traditional military training like SERE school and combat hunter courses, but he also attended craftsman and trade courses. He was trained on basic mechanics, fuel storage and additization, explosives handling, and commercial purchasing. This training was all focused on making him a self-sufficient, adaptable, and survivable asset.

The First Indochina War's outcome was heavily influenced by each side's logistical plan. The terrain and climate of Indochina did not favor large scale military operations. Characterized by steep mountains, dense forest, high temperatures, high humidity, and little infrastructure, everything about Indochina seemed to hamper logistical operations.¹ At this point in history, the French logistical organization was a combination of a doctrine and gear developed in both world wars, relying in part on a World War I-era centralized system that could support from the rear through protected lines of communication and in part on a World War II-era mobile, unit-oriented support system.² The Viet Minh, meanwhile, developed a highly unconventional and more mobile approach to the logistical problem. They utilized every transportation means available to them, relied on captured supplies or locally sourced material, and stored supplies in numerous, welldispersed caches hidden along several different routes.³ In the end, the Viet Minh's ability to adapt to the physical and operational environment despite a technological disadvantage allowed it to defeat a more developed and conventional power.

The noise from the street snapped Westley back to reality. As he walked his usual route through the metropolis toward the outskirts of the city, he was reminded of how much South Landia had become home to him over the past five years. The country was not his first choice

of locations, but an important one all the same. South Landia was located in the Western Hemisphere and was officially part of INDOPACOM's Area of Operations. Once a war-torn country dominated by communist tendencies, South Landia had become a vibrant democracy in stark contradiction to its neighbor to the north. While South Landian citizens enjoy all the freedoms expected of a 21st century democracy, North Landia is a communist country controlled by an increasingly unstable dictatorship. A majority of its citizens live below the poverty line and do not have access to running water or electricity. A nuclear program in its infancy has made North Landia a country of interest, though, and has made the alliance between the United States and South Landia even more important.

Just then, Westley arrived at his "day job." The U.S. Government had decided that hiding in plain site was the best way to conceal each CELL, so Westley was officially the floor manager of a small fabrication shop. The shop was a large warehouse with offices and heavy machinery surrounded by a large fenced-in yard with scrap metal on one end, a small fleet of trucks on the other, and some sheds in between. The company fabricated small parts for car manufacturers. It shipped parts all around the world so there was a steady stream of trucks coming and going, providing perfect cover for the CELL's true operations. While Westley was never given details on the other CELLs for security reasons, he knew that each had a similar set up. Each was centered around a business that provided an availability to certain resources. For example, during his training, Westley was told of one CELL that worked with local fishermen. This CELL was reportedly able to mobilize over 25 local fishing vessels to deliver goods and equipment to various local ports with significantly less suspicion than any military vessel, perfectly concealing Marine *Corps logistical movements and drastically* reducing targetability.

Westley spent his morning preparing the monthly report he owed Col Scott back in Washington. He was proud of the plan he had put together over the past five years. The plan all revolved around a major road that connected the city Westley lived in and a seaport utilized by fishers and



Sustaining new operating concepts will require creative problem solving and every available means of distribution. (Photo by LCpl Claudia Palacios.)

medium size commercial vessels. This road then turned north and led to the border between North and South Landia only six miles later. Westley referred to this road and its subsidiaries simply as "the trail." Along the trail Westley utilized Mr. Smith's existing buildings plus local vendors with whom he had cultivated relationships. In total, Westley had over 22 locations along the trail that provided redundancy and flexibility to his plan. Each stop was marked on a tourist map that he sent back to Col Scott with a code name assigned to each stop. Ground force commanders could simply be told to go to "Arby's" to find a food stockpile or "Shell" to locate fuel. Locations were dispersed, so if one became compromised, the others were still operable. Supplies were then classified into categories of perishable and non-perishable. Westley had slowly built a stockpile of non-perishable items according to Col Scott's instructions. Inside most of Mr. Smith's buildings, he had hidden various small arms ammunition cleverly disguised in ordinary shipping boxes. These boxes were sealed to protect against humidity and had a shelf life of close to a decade and were numerous enough to keep a battalion fighting for ten days. For perishable items, Westley could leverage the contacts he had made to create a rapid and flexible response. When given the order, trusted local vendors would provide

fresh produce and drinkable water. Sheds and warehouses would hide fuel bladders specifically designed to fit on Mr. Smith's trucks, and they could be filled and moved within hours. Once an initial fight subsided and follow-on actions were necessary, Westley could tap into a list of contacts around the country for fresh supplies. Although they were not located on the trail and thus could take longer to procure, the supply chain was still significantly faster and cheaper than shipping from the States.

The Viet Minh needed a way to safeguard supplies from French air attacks. In order to accomplish this, the Viet Minh leadership ordered the creation of several small arsenals and workshops dispersed around Viet Minh-controlled territory. These ranged from small, highly mobile units to larger captured French facilities.⁴ They also developed effective alert systems that allowed supplies to be evacuated in a short period of time.⁵ In order to support the army on the move, small rice caches were hidden along the trail.⁶

Westley's transportation plan was a simple one: the small fleet of trucks that Mr. Smith owned would be put to use hauling larger supplies, but most supplies would be hand carried. Infantry battalions could offload at the pier in the middle of the night and walk the six miles to the

border, making multiple stops en route along the trail to pick up whatever supplies they needed.

The Viet Minh resupply routes were a set of roads, paths, trails, and camps that would eventually become the Ho Chi Minh Trail. To transport supplies, the Viet Minh utilized the "porter system." In 1949, the Viet Minh leadership mobilized the civilian population by making military service mandatory for three months every year. A porter would use a bicycle with no pedals or chains to push 50 pounds of supplies roughly 15 miles every day. Porters typically moved at night to avoid detection. Legs of the journey became well established and a porter would typically find a facility at the end of a travel leg where they could cook and keep concealed.7

Westley finished reviewing his monthly report. It looked like a standard accounting document filled with assets and liabilities. He logged on to a secure web-based storage site and dropped it into a folder, hidden among years of tax forms and accounting documents. Col Scott then had access to it at any time and from anywhere. Before logging off and doing fabrication work to keep up his appearance, Westley browsed a neighborhood trading site and clicked through the wanted ads. His heart skipped a beat as he read one simply titled "helping hands." His floor manager duties would have to wait—his sleeper CELL had just been activated.

Notes

1. Charles Shrader, A War of Logistics: Parachutes and Porters in Indochina, 1945–1954, (Lexington, KY: University Press of Kentucky, 2015).

- 2. Ibid.
- 3. Ibid.
- 4. Ibid.
- 5. Ibid.
- 6. Ibid.
- 7. Ibid.
- 8. Ibid.



2020 LtGen Barnard E. "Mick" Trainor Military Writing Award: Honorable Mention

A Letter Home from a Marine in the Future

Inside Experimental MAGTF 2022-2023 by LtCol Neal K. McCarthy

ey dad, It feels good to finally be writing a long letter to you instead of the monthly "I'm OK but cannot talk about it" postcards. They warned us we would not be able to communicate back home for several months (and I warned you and mom).

We're winding down and heading home. Considering that you were a Marine for over 30 years, I figured you would want to know what the future of the Marine Corps is going to look like. So, where do I start?

Day one: this Marine Corps one-star steps up to the podium. His name was Gen Mark Hashimoto, and for the next twelve months, he is the Commanding General of Experimental MAGTF 2022–2023—or "XMAGTF-22/23" for short.

The general opened: "Let me tell you about our MAGTF and the challenges we have ahead. We'll be testing and possibly executing (real world) three missions: protecting the fleet, amphibious assault, and the long-range amphibious raid. Everything we do will be at a range of 100 miles or greater. The raid may travel up to 1000 miles. We will attempt a number of new concepts for the Marine Corps as per the *Commandant's Planning Guidance* of 2020: mass without concentration, not just of forces, but also fires, mobility, and surveillance. We will do so in the hostile >LtCol McCarthy retired from the USMCR after over 30 years. He served over ten years of various periods of active duty. His primary MOS was Communications/ Data with a secondary of Information Operations.

"Stand In" zone between a vulnerable ship and a hostile enemy with antiship missiles, leveraging an "Internet of Things" (IoT) approach with tools and technologies that are both "affordable and plentiful." We will leverage our global network for extensive reach back support for such things as intelligence, planning, fires, drone operations, and cyber security—all dedicated to our MAGTF without the extensive footprint normally required on ships."

We then spent the next two months at Camp Pendleton doing individual training: basic infantry skills, these new man-portable French missiles, drone operations, and rubber boat operations. They took us out surfing every other morning—something about "finding peace with the ocean." (Not a bad idea since we basically lived on these little rubber boats in the middle of the ocean.) Every other weekend was liberty in San Diego.

We embarked on the USS *Portland* (LPD), and for the following two and a half months, we made five two-week trips back and forth between Pendleton and Hawaii working on unit tactics. Enjoyed three "96"s in Waikiki.

So, we (3d & 4th Platoon) use three boats that are connected to each other with six Marines. The first boat is your typical Zodiac boat. (They are all Zodiac boats with interchangeable components.) The second boat has a giant flexible fuel bladder (~150 gallons) and a motor. The third boat is interesting. So, in order to maneuver from over 100 miles out, we need comms. But we also do not want to put out this massive electromagnetic signature, and I guess they just cannot buy every boat a satcom phone. The third boat also has a 150-gallon fuel bladder and a small almost watertight generator that powers a 50-pound drone. The drone is tethered to the boat by a detachable cable that feeds it electricity. It hovers about 300 feet up and has all kinds of stuff. So, at 300 feet up, it supposedly has line-of-sight for about 20 miles and can cover something like 1,200 square miles. This drone has everything: comms and "repeater" capability, optics, a laser range finder, an electromagnetic detector (full spectrum: radio comms, missile/ship radar, etc.), IR, and obviously a GPS. All of our comms/ navigations devices are internetworked.

So, when this drone finds another drone—as well as a ship, airplane, or any other "node"—we are all plugged into each other. It also "talks" to all of our tactical comms that we carry, and our comms repeat for each other also. Everybody is connected to everybody. The third boat also has this 150-pound underwater tube thing. It is heavy, but once it is in the water, it sort of floats (sinks slowly). We at first thought it was just a big sonar array; however, it turns out to be a torpedo that can listen. This also communicates via the drone that is connected to the network. All of this is accessible by anybody on the network. This third boat is completely self-contained. These boats are meant to be detached and "daisy chained" about every 30 miles so now we have this "link" back to the mother ship (or to anybody with a high-volume satellite uplink). It also provides a "passage" for all the follow-on activity. People and things can navigate by it and drones charge on them-all tracked on the "network" and all interconnected.

On the other hand, 1st and 2d platoon were assigned to AAV's. They have one Zodiac with two motors called a "pusher" connected behind them. It has a reinforced frame and a 150-gallon fuel bladder and another boat with a fuel bladder in tow. It can almost double the AAV's speed and extends its range to about 150 miles. The "pushers" typically disconnect and loiter three to five miles from the beach. *Everything* has GPS enabled comms, which makes it easy to find in the middle of the ocean.

The MAGTF also has these portable pontoons that they use for the Helos and the HIMARS. They are 5 feet by 5 feet, and you lock them together to become 30 feet by 30 feet. They can float a HIMARS truck or a Cobra helicopter. A little floating island in the middle of nowhere. They use two of the same boats that the AAV's use, and they can push this pontoon setup for almost 200 miles at a max speed of 20 mph. The helicopters just do not have the range to fly from the LPD to the shore and still be useful; thus, they live on these pontoons. Again, all with GPS, comms and interconnected. I do not

think they work for Harriers or Ospreys, but I could be wrong.

We have portable missiles. They are manufactured by some French company. We travel with three variants. They all work with our one Missile Delivery Console (MDC). It sits on your shoulder, and you screw whatever missile you want to shoot into the back of it. It weighs about 20 pounds without a missile. It is also the laser designator. We carry two 150-pound missiles; three 20-pound, short and fat; and one 20-pound, long and narrow. Now, the key here is that these are not just for our use. What I mean is, obviously I can point one of these at a target that I want to destroy and shoot it (it is called "Local Mode"). But the key difference is that since MDC's are all networked, we are also a distributed weapons delivery platform for someone else. They call it the "Command Execution" mode. The MDC tells us where to point and to squeeze the trigger and hold it when we are ready to fire. We have no idea where it is going or if it is even going to fire.

The 150-pound rockets have a 5-mile range and a payload of 35 pounds. The fat/short 20-pound rockets have a 10-pound payload and a range of just under a mile. The skinny/long missile is for anti-air (anti-missile).

We also have dozens of drones, flying independently in support of operations, with operators spread throughout the MAGTF. They can fly 30 mph for up to 2 hours. Each squad has a drone controller. The Company Commander's AAV has four drone operators inside. The next echelon is in a hardened HUMMWV. Drone operators on the USS Portland can support the assault and/or execute fleet protection. We also have reach back drone support in CO-NUS. Every fuel bladder has a drone pad for recharging. There are also spare batteries that we can just swap out. The AAV's have a drone pad on them. There is a whole strategy for employing them for ISR as well as fire support. They traverse the "Daisy Chain" to get from ship to shore, charging along the way.

So, six months into this, we are doing yet another "real-world" screening mission for the USS *Portland* and some container ships near Indonesia (more pirate attacks than Somalia). We deploy fifteen 3-boat teams, 7 AAV's with pushers, and 3 pontoons with pushers (1 each for the 2 Cobras, and 1 with the HIMARS truck) to create a mobile 100mile radius "bubble" around the USS *Portland*. We are on the move—7x24. Every four days, we would come in for fuel and two days of hot showers and real food. One day, we intercepted some pirates. But because the drones have such a long range (surveillance)—120 miles out—we were able to determine which little island they came from. So, the Indonesian navy decides to do some law enforcement actions; and instead, their frigate gets blown up by two antiship missiles. They were ten miles off the coast of the island. Rumor has it that it sank in less than five minutes. Everyone on board perished.

Well, now all bets are off. We are tasked with taking the island the next day. It is about fifteen square miles, supposedly uninhabited, and we have been given the green light from the Indonesian Navy to do whatever is necessary. The White House (Trump) authorizes military action in support of a friendly nation—just like ordering pizza.

So, the USS Portland is 120 miles off the coast. As we disembark, we "daisy chain" boats as we go providing a realtime link between the Portland (and SIPR) and the island. Drones are flying all over the place. 1st and 2d platoon are in eight AAVs, while 3d and 4th platoon are split between twelve boat teams. Two Cobras are at 3 to 4-mile standoff range, and a 6-pack of HI-MAR's on a pontoon are 80 miles off the coast. About four miles miles out, everyone dumps their secondary rubber boats (with fuel tanks) and gets "native." Time to prep the beach: twenty 150-pound rockets within the company, 4 on each of the 2 Cobras, and 6 HI-MARS; 34 rockets all hit targets on the island at roughly the same time flying in from everywhere. Explosion are erupting all over the place. The AAV's immediately go ashore and the assault begins. Our job (3d and 4th platoon) is to continue to provide fire support and reinforcements as needed. The HI-MARS loaded up its second "six-pack"

of missiles and fired in support as well. Then the LCU drops off our *one* M1A1 tank, and it joins the assault. Within about twenty minutes, we fired off our remaining rockets and went ashore to join the fray. It took 4 hours to secure the island with 30 prisoners. We lost two Marines to hostile fire and two wounded because of stupidity. Once the Indonesian Navy took over, we disappeared.

Two days later, we get word that one of the prisoners provided very detailed info about another island that is the major supplier of weapons and missiles. The island was 600 miles toward China and had also been associated with Chinese "pirate" proxies.

Apparently, we were the only game in town. I was on the raid team. The raid package involves the LCU carrying additional fuel containers and supplies, which greatly extends its range. It carried a hardened HUMMWV with the drone operators and a highspeed satellite uplink to SIPR that works anywhere on the planet. The LCU also carried the HIMARS truck with a second six-pack of rockets, nine pontoons and two "pusher" boats to move it, and a combination forklift/ crane to handle the cargo. In addition, four of our (three-boat) teams would tie up to the sides of the LCU. But here is where things got brilliant. You are familiar with scaffolding they use to paint buildings? They created a kit that was attached topside of the LCU. They then applied these very lightweight but extremely real looking panels that made the LCU look like a small cargo boat with ten 40-foot shipping containers (five across with two rows front to back) and an operational structure to the rear. The façade was big enough to cover the LCU, its cargo, and the six rubber boats tethered to each side. The facade was constructed to allow the rubber boats to slide in and out of the rear. The front opened so the ramp could be lowered. Also, the panels over the HIMARS could be opened to allow it to fire missiles. Finally, the sides collapse inward to enable the LCU to easily traverse the width of the LPD well deck. We were armed to the teeth and on our way for a 4-day/800-mile

journey through "pirate" territory. Just some small local transport filled with shipping containers.

We executed a very simple plan successfully. At 120 miles out from the objective, the LCU partially lowered its ramp and disembarked the pontoons. Once they were all assembled, the pusher boats were disembarked. Then the HIMARS truck was driven onto the pontoons, strapped down, and "pushed" to 80 miles out from the island. The four boat teams "daisy chained" the entire length from the LCU to the island. We had drones doing ISR 25 miles in every direction from the "Daisy Chain." We had 7x24 reach back support and were getting realtime intel support during the entire operation. Everything on the island lined up with the intel we had. So, we took up our distributed firing positions (three miles apart) and waited for "Command Mode" to take over. "Reach back" was managing all the targeting and fires. The first volley of synchronized rockets worked as planned. Each boat team fired two 150-pound rockets. They were coming in low and from four different locations targeting the anti-missile systems. The HIMARS were right behind them. Twelve of the fourteen rockets were successful. After some quick BDA from the drones, the second volley, five minutes later, of another fourteen rockets was "icing on the cake." The island was ablaze with exploding munitions and fuel. We bugged out. We reversed the process and were back to being a small container ship heading on its way. Five uneventful days later, we were back on the Portland.

After a very long shower, a good meal, and ten hours of exceptional sleep, I wrote you this letter. See you in about five weeks.

Give my love to mom, Kevin



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Out With the New, In With the Old

How to ensure the success of distributed operations in the Indo-Pacific

by GySgt Blake Gratton

s a globally relevant military power, China continues to evolve at a pace greater than the United States due in large part to its commitment to strengthen its expansion, security, and authority in the Indo-Pacific. The transition of Chinese military strategy from People's War concepts, involving protracted irregular warfare, demonstrates China's evolution from maintain a landbased focus to leveraging a strategy that centers on mobile maritime force modernization. This military force modernization enables China to increase its territorial claims and influence through its maritime strategy on neighboring Indo-Pacific countries.

The United States has recognized China's political, economic, military, and geographical increase in power. The United States, however, is not currently poised to successfully combat China's growing military and geographical sphere of control within the irregular warfare spectrum because of the lack of proactive or significant action to address the influence concerning non-military instruments of national power. Concern for maritime security in the Indo-Pacific region is more prevalent than ever as China continues to grow its influence on its neighbors.

Recognizing this threat, the 2017 U.S. National Security Strategy contextualizes the fourth pillar of the U.S. strategy through a regional lens and highlights the geopolitical and economic importance of the Indo-Pacific.¹ The fourth pillar of U.S. strategy is particularly important as it acknowledges the importance of maintaining U.S. com>GySgt Gratton currently serves as an Irregular Warfare Instructor at the Marine Raider Training Center, Camp Lejeune, NC. Previously, he deployed to Jordan and Lebanon conducting both Aviation Foreign Internal Defense as well as squad- and company-level operations with host nation forces.

mitment to its allies and partners and continuing to develop new relationships in the Indo-Pacific region. Aligned with National Security Strategy, the *National Defense Strategy (NDS)* outlines that a long-term strategic competition with China will become the new normal for the United States. The 2018 NDS recognizes the need for the joint force to sustainably deter aggression from threats in key regions globally and to maintain a favorable regional balance in the Indo-Pacific region.² The DOD's objectives identify that the United States must defend its allies from military aggression and bolster its partners for their ability to counter coercion.

In line with the focus to strengthen the allies and partners, the Navy's Design for Maintaining Maritime Superiority 2.0 calls out, within the fourth lines of effort (LOE), to expand and strengthen our Navy partners is the first and top priority to integrate with the Marine Corps. This LOE also recognizes the need to "build on existing maritime intelligence and logistics partnerships with allied nations, and expand relationships with partner nations to broaden and strengthen global maritime awareness



Influencing the narrative in the Indo-Pacific region is a critical element of security cooperation. (Photo by Cpl Danny Gonzalez.)

and access."³ As echoed throughout each layer of the strategy, maintaining allied relationships and expanding partnerships is the linchpin of success in the U.S. strategy centered on littoral operations. The Navy and Marine Corps have yet to couple their operations with the current published strategy.

The United States' success in future conflict in the Indo-Pacific will be contingent on its ability to gain influence over the region's relevant populations. Current Marine Corps strategy prioritizes projection of power over the need for non-kinetic involvement with those relevant populations. The Marine Corps' over-emphasis on quantitative results has led to exponentially increased technology costs and lowered the value of deployment rotations with lower touch engagement. Although more difficult to quantify, the benefit of utilizing elements of the Marine Corps as a tool for relationship building is disproportionally more valuable than what can be perceived as a superficial projection of power for the future of a more secure America. Population-centric warfare has been and will continue to be the most crucial element of America's capability to win wars, especially those that lie below the threshold of armed conflict.

The Marine Corps' paradigm shift from the conflict in the Middle East to the Indo-Pacific is geographically aligned but lacks appropriate force appropriation to conduct population-centric irregular warfare. *Joint Publication I, Doctrine for the Armed Forces of the United States*, defines irregular warfare as:

> The form of warfare characterized as a violent struggle among state and nonstate actors for legitimacy and influence over the relevant population(s). This form is labeled as irregular in order to highlight its non-Westphalian context. The strategic point of IW is to gain or maintain control or influence over, and the support of, a relevant population.⁴

While operating from the littorals, as part of an integrated naval strategy, the Marine Corps must proportionally employ its forces in irregular warfare environments, focusing on strategic relationships and partnerships in the Indo-Pacific region. Any expectation for Marine Corps units to conduct distributed operations (DO) or combined arms at the squad level inside of China's threat ring is highly dependent on the United States' ability to foster and maintain new relationships.

Integral in executing DO, the concept of Littoral Operations in a Contested Environment (LOCE) identifies the need for landbased operations to support the two segments that comprise the littoral environment. Aside from the seaward segment, the landward portion is defined as "the area inland from the shore that can be supported and defended directly from the sea."⁵ The LOCE acknowledges the littoral

The United States' success in future conflict in the Indo-Pacific will be contingent on its ability to gain influence...

battlespace is a blended environment extending hundreds of miles inland and seaward. The LOCE concept provides a framework for the Marine Corps to begin shaping its objectives and outline its future force disposition to work in an irregular capacity. This capacity should largely focus on security cooperation to achieve its long-term goals of building U.S. allies and increasing regional influence. The linchpin of a future conflict in the Indo-Pacific lies squarely on geographically relevant areas most threatening to China's freedom of movement and influence.

In pursuit of U.S. National Security objectives, the *Cooperative Strategy for 21st Century Seapower* recognizes not only the criticality of naval power but also the need for expanding the U.S. network of allies and maintaining its current relationships.⁶ Maritime environments now contested by state and non-state actors have created a space influenced by those capable of anti-access/ area denial (A2/AD) that threaten the United States and its partner's maritime security. The current disposition of U.S. naval forces is limited by its landbased partnerships. The United States is confined to its historical allies, namely the Republic of Korea and Japan. Although the current U.S. allies are strategic in location, they only represent a small fraction of the required area of influence the United States must support-further complicating the strategic position of the United States and its allies. The reality is that the United States is floundering in its ability to expand and maintain relevant relationships in the Indo-Pacific. A protracted conflict between the United States-or its allies-and China will be unsuccessful based on current geographic and human disposition in the Indo-Pacific region.

As an example, China's economic expansion in the Philippines through its One Belt One Road initiative highlights the need for the United States to evaluate its plans to maintain relevance or a decisive advantage beyond solely a military partnership. Since the situation in the Philippines degraded significantly in the 1990s, the United States has slowly rekindled its military partnership. In support of the current U.S. naval campaign, having the ability to exert maximum pressure on the Spratly Island chain and the conduct of LOCE coupled with Expeditionary Advanced Base Operations (EABO) operations from the Philippines is crucial to U.S. strategic success. Additionally, the U.S Navy's Stand in Forces and the bulk of conceptual framework designed around a proximity layered offense is heavily dependent on security cooperation with landmasses inside China's threat ring. The 2,000 inhabited islands that comprise the Philippines provide a fitting staging ground to forge the Navy's Stand in Forces concept and stage for future EABO.

The United States must evaluate the amount of force being applied by each instrument of national power in order to forge the necessary relationships that will support future conflict. The sole use of military forces to gain leverage and build relationships is a foot in the door, but utilizing a holistic approach will set conditions for any expectation of future DO in the region. Title 10 of the U.S. Code outlines Marine Corps responsibilities to provide required land operations essential to the support of a naval campaign. Similar to the U.S. Navy's concept of composite warfare, small unit leaders within Marine Forces (MARFOR) must be challenged and entrusted to conduct operations within a decentralized command and control (C2) framework within irregular environments surrounding the Indo-Pacific.⁷ The future Marine Corps must prepare to decisively distribute its forces, operating below the threshold of conflict in both landbased and seabased environments.

The current constrained use of the MEU and deployed MAGTFs during littoral operations in the Indo-Pacific hinders the potential to develop, strengthen, and sustain the U.S. security relationships. To meet the expectation defined in the Marine Corps LOCE to conduct EABO, the Marine Corps must first have the ability to perform the landbased operations within sovereign territorial boundaries. The future Marine Corps must first utilize forwarddeployed MARFORs in an irregular capacity to build and strengthen U.S. alliances with strategic partners in the Indo-Pacific. Conducting landbased irregular warfare is an integral component to degrade and deny China's maritime influence and aggression while still maintaining the required lethality expected of our force in a littoral environment.

The security cooperation and expansion of U.S. relationships in the Indo-Pacific region must progress past current alliances and focus on regional partners inside of China's weapons engagement zone. The cooperation of the Marine Corps with the Navy in support of their naval campaign provides the ability to greatly affect the littoral battlespace the Navy plans to affect. This increased cooperation will provide threatening proximity and assist in the degradation of China's A2/AD capability should conflict erupt. The Marine Corps must begin to employ its forces in the Indo-Pacific in maintainable and sustainable quantities in an unconditional capacity.

Further complicating the United States' strategic position, current U.S.

force disposition in the Indo-Pacific is highly contingent on the United States' ability to operate from the sea. China's most recent A2/AD weaponry is capable of quickly limiting the maritime freedom of movement the United States presently experiences. The requirement of maintaining relationships with U.S. allies in Japan and the Republic of Korea would provide staging areas for U.S. forces but place those countries at extreme risk of Chinese aggression. Countries that the United States has a presence in but is lacking in its required level of relationships would be questionable to top-level leadership if they would support U.S. efforts during a time of conflict. The Navy and Marine Corps concepts of Stand in Operations, LOĈE, DO, and EABO are all contingent on the ability to port and stage from landbased areas.

There is a significant risk not only to C2 but also the integrity of information networks the moment the United States conducts warfare with a peer-to-peer adversary in the Indo-Pacific. Clear and direct guidance on the strategic purpose of Marine Corps DO down to the lowest level must be understood by Marine leaders during conflict. The empowerment of small unit leaders with this understanding will maintain the continuity between the Marine Corps and the Navy under the concept of composite warfare. Although DO expects the Marine Corps to maintain C2 across the seven warfighting functions, the significant advantage the Marine Corps must train to and expect is the ability for small unit leaders to execute their commander's intent and their ability to use sound judgment and decisionmaking skills in absence of continuous communication.

There are three core recommendations to ensure the success of future U.S. military operations in the Indo-Pacific region. These recommendations are not meant to be consecutive but rather treated separately.

First Recommendation

Begin implementation of introducing irregular warfare education in respect to littoral operations in the Indo-Pacific into Navy and Marine Corps schools such as: Officer Candidate School, Recruit Training, and Grade-based Professional Military Education.

Methods for Implementation

During the current MARFOR re-design, apply lessons learned from Marine Forces Special Operations Command (MARFORSOC) during the creation and implementation of irregular warfare focused units. Distill and apply lessons learned from MARFORSOC small unit leaders during their past fifteen years of experience conducting irregular warfare operations around the world. Develop



U.S security cooperation in the Indo-Pacific region must expand to partners inside China's weapons engagement zone. (Photo by Cpl Danny Gonzalez.)



China's strategy is shifting from a landbased focus to mobile maritime modernization. (Photo by Defense Connect Australia.)

and implement irregular warfare centric education coupled with LOCE into Marine Corps Officer Corps, staff noncommissioned officers, and entry level schools.

Measure of Effectiveness

Change within the Marine Corps can happen in two ways: it can be directed or sweep across the entirety of the Marine Corps. The introduction of irregular warfare education in respect to littoral operations in the Indo-Pacific into Marine Corps schools will provide directed change to the Marine Corps and explain that transformation is occurring. Fostering and maintaining relationships and new partnerships will serve as effectiveness criteria for the success of commanders and their units to conduct operations in irregular warfare environments.

Second Recommendation

Implement DO into doctrine and provide a means for a limited combined arms capability at the squad level.

Methods for Implementation

Task the Marine Corps Combat Development Command and the Combat Development and Integration to develop the operating concept to utilize DO at the squad level. MARFORSOC and Air Naval Gunfire Liaison Company serve as examples of the capabilities that small unit leadership can apply to the battlefield with combined arms experience at the small unit leader level. Air Naval Gunfire Liaison Company currently is tasked to serve in the capacity to support maneuver units with fire support that are adjacent to the MAGTF. Employing these units, collaborate and develop the necessary arms progression training pipeline to utilize existing Marine Corps schools to the maximum amount possible to train units to be capable of DO at the squad level.

Measure of Effectiveness

Updated doctrine, table of organization, and table of equipment will be required. Staff planners will be required to fully understand how DO can be implemented into strategy and policy. The Marine Corps' ability to educate and subsequently execute combined arms operations at the squad level will serve as the measure of effectiveness.

Third Recommendation

Begin development and implement policy changes to ensure the U.S. naval campaign plan allows Marine Corps and Navy forces to conduct security cooperation and irregular warfare throughout the Indo-Pacific.

Methods for Implementation

Staff Planners develop the policy plans and changes to the U.S. Navy Campaign Plan and submit to Joint Chiefs of Staff for approval. Combatant commanders develop and finalize their commander's intent and issue to subordinate commanders to drive operations for future relationship building, partnership, and training plans in the Indo-Pacific. Unit commanders must understand the importance of population centric warfare and how it is crucial to the United States' ability to operate at or below the threshold of conflict.

Measure of Effectiveness

The development and implementation of policy changes to the U.S. naval campaign will allow Marine Corps and Navy units to plan for and conduct security cooperation and irregular warfare throughout the Indo-Pacific. Timely implementation will allow unit commanders to immediately plan for and begin training for their missions. Untimely implementation will negatively affect commanders and lead to their Marines and Sailors mission failure. The ability of Marine Corps Staff to develop and implement changes will enable subordinate training commands and units to prepare for and conduct security cooperation and irregular warfare.

Notes

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Between a Rocket and a Hard Place

MCDP 1, Warfighting, and *Force Design 2030* by Dr. Heather Venable & LtCol Nate Lauterbach

n seeking to put the Vietnam War in the past, CMC Leonard F. Chapman Jr. stated, "We got defeated and thrown out, the best thing we can do is forget about it."1 In the continuing cycle of the Marine Corps seesawing between a land-focus and a sea-focus, he then advocated pursuing increased ties to the Navy. His successor, CMC Robert E. Cushman Jr., similarly stressed the importance of "redirecting our attention seaward and re-emphasizing our partnership with the Navy."² Over the next two decades, as Marines prepared for potential conventional conflict with the Soviet Union, they increasingly refined and centered their ideas about warfare on the concept of maneuver warfare—as epitomized by the publication of MCDP 1, Warfighting, in 1989.

Origins of and Problems with a Land-Centric MCDP 1

Even today, *MCDP 1* continues to be heralded as a unique blend of theory and doctrine that makes it perhaps the most important, foundational text of any military institution. However, there is an important flaw that must be addressed in a subsequent rewrite to adhere to Gen Al Gray's admonition that *MCDP 1* is a living, breathing document.³ Somewhat ironically, given the Marine Corps' determination to reconnect with its naval roots after the Vietnam War, *MCDP 1* is too land-centric. Indeed, it is difficult to reconcile its emphasis on maneuver warfare with naval warfare.

In some ways, *MCDP 1*'s focus on land warfare can be understood in light of the direction the Corps took after Vietnam, as seen in three particular *>Dr. Venable has written* How the Few Became the Proud: The Making of the Marine Corps' Mythos, 1874–1918 *and is a non-resident fellow at Marine Corps University's Krulak Center.*

>>LtCol Lauterbach is the Plans Officer for 2d MAW. He is an Aviation C2 Officer and a graduate of the Marine Corps School of Advanced Warfighting.

areas. First, the Corps attached significant importance, understandably, to pursuing technology that complimented its acceptance of maneuver warfare. The light armored vehicle, for example, represented a kind of "compromise of sorts" between "mechanizers and infantry-philes."⁴ This solution epitomized the Corps' deliberate rejection of the Army's embrace of heavily-armored tanks.⁵ But these debates tended to reaffirm the Corps' land-centric leanings in the first place, just in a different direction than the Army.

Second, the Corps derived much of its theoretical underpinning for maneuver warfare from John Boyd. Although Boyd gained his operational experience flying aircraft for the Air Force, he subsequently determined through his historical studies that a "blitz/guerrilla style of war" offered the greatest likelihood of victory.⁶ Thus, his landcentric theory of victory mirrored and reinforced the kinds of technological debates that animated the Corps at this time.

Finally, from the larger perspective of its theoretical focus, *MCDP 1* derives its inspiration from one of the most respected of all war theorists: Carl von Clausewitz. Yet, for all his profound insights into the nature of war and its myriad complexities, including the human element, Clausewitz fundamentally offers a land-centric view of warfare. As naval officer J.C. Wylie—who himself sought to develop a broad theory of war—makes clear, soldiers generally espouse a kind of continental approach to warfare shaped primarily by the land domain's natural emphasis on terrain.⁷ And, historically, Marines have been soldiers, albeit soldiers of the sea.

This mentality makes an early appearance in *MCDP 1*, which begins with two quotes from Clausewitz and Liddell Hart regarding the complexity of war and the importance of properly stressing the human will. But then *Warfighting* cites A.A. Vandegrift's idea that

[p] ositions are seldom lost because they have been destroyed, but almost invariably because the leader has decided in his own mind that the position cannot be held.⁸

Vandegrift's idea certainly exemplifies ideas about maneuver warfare in its emphasis on changing the opponent's "mind" rather than "destroy[ing]" something. But this idea of holding territory does not translate seamlessly to the naval domain.

Furthermore, *MCDP 1* describes levels of Marine organization from division

to fire team with constant references to "battlefields," a term rarely used in the context of naval warfare.⁹ *MCDP 1* likewise enjoins Marines to be skilled first and foremost in "military art," an idea that easily could be rephrased as naval art, yet it is not.¹⁰ Indeed, it is not until more than halfway through *MCDP 1* that one reads at last of Marines needing to be "skilled" in relation to the "water."¹¹

Other examples of the land-centric nature of *MCDP 1* are evident in how it repeatedly characterizes the battlefield. *Warfighting* describes "formations on the battlefield," explaining how in the past they tended to consist of "linear formations and uninterrupted linear fronts." Such language transports the reader to a largely ground-centric conflict such as World War I.¹²

By contrast, prominent naval thinker and retired Capt Wayne Hughes argues that naval warfare is deeply nonlinear in nature.¹³ Retired naval officer Roger Barnett echoes him, stating that it is highly problematic to "carry over wholesale in the realm of the sea" ideas that "govern" land warfare.14 But Clausewitz and Sun Tzu are the theorists that animate MCDP 1, not Mahan or Corbett or even Wylie, who attempted to blend the various domain-based theories into a "general" theory.¹⁵ Clausewitz and Sun Tzu merit their places in MCDP *1*, but they must make room for naval theory, too.

Attrition vs Maneuver in Naval Warfare

This land-centric emphasis carries over into how *MCDP 1* places warfare along a "spectrum of attrition and maneuver." Technically, *MCDP 1* allows for elements of attrition *and* maneuver, although debates between both camps divisively fractured this spectrum.

The word "attrition" became a standin for a host of issues, such as tensions over centralized control, as manifested in a series of letters published in the *Marine Corps Gazette* known as the Attritionist Letters from 2010 to 2013.¹⁶ Similarly, attrition has become almost a bad word in the DOD writ large. While *JP 3-0, Joint Operations*, defines "maneuver," it omits "attrition" from its glossary.¹⁷ One Marine author even goes so far as to conclude that there is "really no such thing as attrition warfare" as no "book" or "theorist" advocates for it. In his opinion, attrition is not even a real concept but, rather, a "bin for ineffective tactics and leadership styles."¹⁸

By contrast, Hughes argues that the indirect approach, or maneuver warfare, is irrelevant to naval warfare because it is inherently "hard fought and destructive."¹⁹ Hughes insists that the "predominance of attrition over maneuver is a theme so basic that it runs through" his book.

It is also important to note how *MCDP 1* defines attritional warfare as focused on the "cumulative destruction of the enemy's material assets," which it largely rejects given its preference for maneuver.²⁰ This notion of cumulative warfare, however, receives key emphasis in RADMJC Wylie's theory.

thinkers into *MCDP 1*, including the need to support a cumulative strategy in addition to a sequential one.²¹ Indeed, such an approach compliments the EABO concept, which seeks to "distribute lethality by providing landbased options for increasing the number of sensors and shooters beyond the upper limit imposed by the quantity of seagoing platforms available" in order to support the Navy.²²

Currently, though, advocates of the concept tend to view the concept primarily from the lens of maneuver warfare. At least one former Marine, for example, insists that this concept is workable if one can "make it difficult for the other actor to maneuver."²³ Another author goes so far as to claim that the Corps' "very existence rests upon the axiom that the sea is maneuver space."²⁴ But, by its nature, naval warfare func-

MCDP 1 defines attritional warfare as focused on the "cumulative destruction of the enemy's material assets" ...

Wylie divides warfare into two categories: cumulative and sequential. Sequential anticipates a progression across the land or sea, such as the Pacific campaigns in World War II. Yet, this is only one portion of naval warfare, which is also fundamentally cumulative in that it seeks to destroy or attrite an enemy's platforms. While he argues cumulative strategies are not decisive on their own, Wylie also insists that the "strength of the cumulative strategy has meant the difference between success or failure of the sequential." Thus, two of the Navy's most prominent naval thinkers challenge the contention that officers should not advocate for attrition.

The Marine Corps' Pursuit of Expeditionary Advanced Base Operations (EABO) in the Context of *MCDP 1*

If the Marine Corps intends to prepare for future warfighting in order to support the Navy, it only makes sense that it incorporate the ideas of key naval tions in opposition to key elements of maneuver warfare, which advocates not attacking enemy strength but *weakness*. This emphasis on maneuver warfare needs to be better reconciled with the thinking of naval warfare experts.

Two other issues should be considered in light of possible updates to MCDP 1. EABO further places significant emphasis on pursuing long-range precision fires to attack ships.²⁵ In this light, it is important to examine the goal of destruction in maneuver warfare, which ultimately centers on hastening the "enemy's systemic disruption."²⁶ MCDP 1 explains that maneuver ultimately seeks a kind of shortcut around the enemy by aiming to "eliminate a key element which incapacitates the enemy systemically."27 At this point, the Marine Corps sounds a lot like the Air Force, which at times has sought to use strategic attack to paralyze the system as a whole—as epitomized by the thinking of John Warden.²⁸

Second, the "seat of purpose" continues to be on the land.²⁹ In emphasizing ship killing, most discussion of EABO occurs at the tactical level of war. But this is problematic because there is more to air or naval or any other employment of military force beyond simple targeting. The larger question is how successful targeting turns into strategic effect, which so often only achieves decisiveness in relation to actions on the ground. Airpower, for example, is most decisive when it "enables friendly ground power to seize, hold, and exploit."30 But the Corps, by stepping into the role of a long-range artillery force, could be setting itself up to pursue a kind of proverbial whack-a-mole game of naval targeting.

Conclusion

While the implicit homage that *MCDP 1* pays to Clausewitz makes it timeless in many ways, it also provides one explanation for why it is so land centric. The Corps will struggle to prepare for future warfare as long as its foundational theories of victory and its key doctrine are removed from the realities of naval warfare, as expressed by experts like J.C. Wylie and Wayne Hughes.

The reappraisal of *MCDP 1* thus necessitates revisiting the spectrum of maneuver and attrition to consider how the balance between the two accords with the realities of naval warfare. Similarly, the emphasis of maneuver warfare in paralyzing an enemy should be considered in light of the somewhat limited capabilities of long-range precision fires, at least as currently envisioned, to affect such a paralysis.

Meanwhile, the Corps runs the risk of pursuing a single path that undercuts its traditional role as a flexible force in readiness. In the late nineteenth century, Capt Henry Cochrane creatively tried to make a case for the Corps' main mission to be a kind of "naval artillery." But he conceded the problems with this idea, admitting it could not place the Corps in a position where its "value would never be questioned."³¹

The Corps has begun discarding key capabilities that shape its trajectory of the last several decades, moving away from infantry toward long-range precision fires. In order to continue pursuing innovative ideas, the Corps must revisit its foundational theory and doctrine. It is time that *MCDP 1* gets its sea legs, becoming not only a theory of warfare but a theory of naval warfare. Only then can the Marine Corps step off in confidence to ensure it has properly aligned itself to support the Navy.

Notes

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2030 Joint Forcible Entry Operations

Maintaining a legitimate capability with future Force Design by Capt Daniel L. McGurkin & 1stLt Jack W. Hanly

nti-access area-denial (A2/ AD) weapons proliferation. The need to operate inside of an adversary's weapons engagement zone. Our Corps' outdated force structure and the necessity of positioning a *legitimate* deterrent in accordance with the 2017 National Security Strategy and 2018 National Defense Strategy (NDS). Our Commandant's guidance is explicit: the Marine Corps will adapt and fulfill its role in the naval force by executing distributed maritime operations (DMO).¹ DMO will manifest in small, highly trained, and technologically-enabled teams spread throughout the contested littoral environment. These units will be armed with far-reaching anti-ship and antiair weapons, posing a *legitimate* threat to the adversary while maintaining a small enough footprint to be hard to target. This vision is leading the Marine Corps to a divestment of all things heavy or slow, a move that has some questioning the quick-pivot from the traditional Joint Forcible Entry Operations (JFEO) mission the force fills. Regardless, change is coming, and current joint doctrine and operational design is insufficient for the execution of JFEO given the Corps' impending changes.

The Commandant himself has said he does not believe "JFEO are irrelevant or an operational anachronism."² This view is prescient; it takes little imagination to envision a future need to seize and hold lodgments against armed opposition as doctrine defines the term.³ But critics have been quick to point out the new force design may make JFEO impossible. Some argue that the Corps is hyper-focused on Chinese aggression >Capt McGurkin is an 0203 Ground Intelligence Officer. He has served as an intelligence officer forward within Operation INHERENT RESOLVE and as the Deputy Intelligence Officer for Task Force Southwest in Helmand/Nimroz Provinces, Afghanistan, under Operation FREEDOM'S SENTINEL. He is currently attending the National Intelligence University as a fellow in the Junior Officer Strategic Intelligence Program.

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in the South China Sea and "will be poorly structured to fight the kind of campaigns that it had to fight in Korea, Vietnam, and Iraq."⁴ While proponents of the *Commandant's Planning Guidance (CPG)* and *Force Design 2030* refute this and have shown how the new look can be applied to the "Big 5"

The Commandant himself has said he does not believe "JFEO are irrelevant or an operational anachronism."

(China, Russia, Iran, North Korea, and insurgents/terrorists), history indicates JFEO of the future may be executed in countries and areas *not* at the top of the nation's adversarial list.⁵ The relatively low cost of A2/AD technology gives states that wish to maintain a plausible deterrent to international intervention an attractive option. It is now more realistic to envision JFEO taking place

against an A2/AD armed "Grenadalike" adversary than U.S. troops wading ashore in Russia or China. This article looks to dispel fears of throwing the baby out with the bathwater and provides a potential way in which the envisioned 2030 structure can still execute JFEO at the tactical and operational level. This updated version of JFEO sees the Marine Corps filling its refined, naval-centric role as the Commandant intends. Though imperfect, this modified operational design can serve as a launch-point for discussion of how the future Corps maintains a legitimate JFEO option for the nation. (See Figure 1 on following page.)

It is necessary to first examine the current operational design of JFEO. JP 3-18, Joint Forcible Entry Operations, outlines the templated phasing and subphasing in Figure 1.⁶ To be fair, the publication offers the disclaimer that "the forcible entry operation commander may establish additional phases that fit the forcible entry CONOPS."7 We primarily take issue with the composition of the assault phase. The current and future operating environment, where A2/AD technology is prolific,

requires a heavier focus on overcoming these weapons. JP 3-18's consideration of the A2/AD threat is barely surface deep. Of the 104 pages comprising the publication, one paragraph is alone dedicated to "Overcoming A2/AD Threat Capabilities."8 The publication's mention of this critical condition is almost entirely focused on naval mine countermeasures, traditional obstacle belts, and improvised explosive devices. Only as an afterthought does it offer that A2/ AD technology will put deployed forces "at risk at greater ranges" and that rear area units may be "increasingly ... targeted." It closes with a two-sentence nod to today's threat to JFEO:

> Some enemies will possess limited numbers of these capabilities, but others will deploy fully integrated and layered advanced A2/AD systems that may be guided by a single C2 system and employed in mutual support so that, to defeat one capability, an attacker must expose himself to others. For example, maritime forces and capabilities may be required in the littoral to support operations inland while defending against threats from shore-based defenses, coastal submarines, and small attack craft.⁹

Defeating "fully integrated and layered advanced A2/AD systems" is arguably the *most necessary condition* of modern JFEO. The joint force cannot accept this threat's treatment as an afterthought in operational design. Now is the time to calcify the requirement in doctrine. Doing so will also allow the Corps to explain how it still fills the JFEO role when executing distributed operations and expeditionary advanced basing.

Swarms and the 2030 JFEO Model

Any discussion of distributed operations will inevitably pique one's interest in swarming or "Swarm Theory." Inferior forces, using swarms, have historically seen success on the battlefield against superior and heavily armed military forces (Lashkar-E-Taiba, Somali tactics during the "Blackhawk Down" battle for Mogadishu, and Chechnyan tactics are all great examples). Sean J. A. Edwards' dissertation, titled "Swarming and the Future of Warfare," is a fan-

tastic analysis. He asserts that swarming occurs when several units conduct a convergent attack on a target from multiple axes.¹⁰ Edwards identifies that swarms succeed in a non-linear fight; that is, one where "units move and fight in multiple directions, are widely separated, and are capable of supporting each other by concentrating mass or fires."11 Anyone familiar with future force design concepts should see screaming similarities for how leaders envision the Corps operating in a modern fight. Likewise, he sees three primary enablers of swarm units: elusiveness (increases survivability and thus likelihood of mission accomplishment), standoff capability (ability to inflict damage and receive less in return), and situational awareness (vital to avoiding fratricide and maintaining unity of effort). DMO

inherently lends itself toward these enablers. The complimentary relationship described in *Force Design 2030* between the Marine Littoral Regiment (MLR) and the MEU will lend itself to swarming. Employment of both will resemble swarm tactics at different stages when specifically executing JFEO. (See Figure 2 on following page.)

Contrast the current JFEO model (Figure 1) with the authors' recommended alteration (Figure 2). We can see that Phase I prescribes preparation and deployment and need not be altered much. The CPG's vision and expeditionary advanced base operating model establishes this key foothold as a product of regular force deployment. The 2018 National Defense Strategy (NDS) laid forth a layered approach to the nation's security: the contact layer, des-

Current Operational Design for Forcible Entry Operations

(Source: JP 3-18 Joint Forcible Entry Operations)

- Phase I: Preparation and Deployment
 - Planning
 - Movement
 - Joint Intelligence Preparation of the Operational Environment
 - Transition to Assault
 - Insertion of SOF
- Phase II: Assault
 - Initial Assaults
 - Initial Entry Forces
 - Reinforcing Entry Forces
 - Overcoming A2AD Threat Capabilities
 - Main Assault
 - Transition to Stabilizing the Lodgment
- Phase III: Stabilization of the Lodgment
 - Securing Lodgment
 - Organizing the Lodgment
 - Expanding Lodgment
 - Transition to Follow-on Forces
- Phase IV: Introduction of Follow-on Forces
 - Ground Offensive or Other Operations by Maritime Pre-Positioning Force or other rapidly deployable force
 - Follow-on Force Preparation for Subsequent Operations
- Phase V: Termination or Transition Operations
 - Achievement of Operation or Campaign Objectives
 - Achievement of Operational Objectives (Limited JFEO objective in larger campaign)

Figure 1. Current JFEO operational design. (Figure provided by author.)

ignated to sense and initiate potential conflict; the blunt layer, to serve as the initial counterpunch; the surge layer, or flow/deployment of forces into the conflict zone; and homeland layer, focused on defense of the actual contiguous United States.¹² We can reasonably assume future JFEO will initiate in the contact layer, where Marines will ideally already stand within the adversary's A2/AD zone or could rapidly deploy thereto. Given this, the issues of where or how to insert and establish staging areas, forward area rearming or refueling points, and sensors able to collect at range are largely solved by the MLR in the operation's initial stages. These units also serve to liaise and insert SOF or contribute to Joint Intelligence Preparation of the Operational Environment. After all, that is their prescribed role as contact layer forces: to sense trouble and initiate the response. In short, the Corps' deployment of expeditionary advanced bases solves many of the traditional problems inherent to preparation and deployment.

With eyes focused on the A2/AD threat, we transition to Phase II: Assault. As mentioned in the opening, this is the area of current JFEO operational design in dire need of reexamination. Modern JFEO design requires five subphases for Phase II: Provocation and Reconnaissance; A2/AD Neutralization/Precision Strike; Harassment and Delaying Operations; Main Assault; and Transition to Stabilizing the Lodgment.

Provocation and Reconnaissance: The purpose of this phase is threefold. In the modern precision strike environment, combatants can only expect to fire one salvo before critical long-range fires assets become immediately senseable and targetable. Thus, we first seek to provoke the enemy into "unmasking" his precision strike/A2/AD assets. This is accomplished by using a high volume of unmanned air- and sea-borne vehicles presenting electromagnetic signatures of much larger and more critical assets. For example, relatively cheap Group 3 UAS could present the signature of a flight of F18s or CH-53s, or small unmanned surface vessels could present L-Class shipping. This presents the

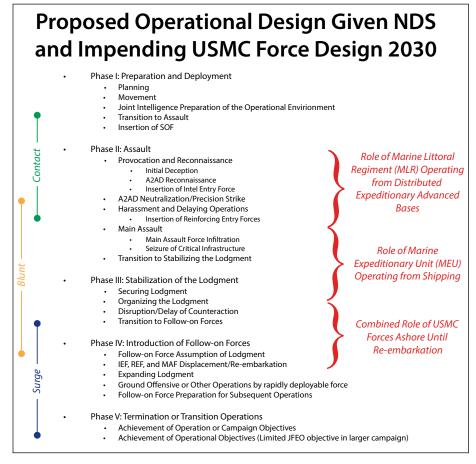


Figure 2. (Figure provided by author.)

enemy an immediate dilemma in that he must assume the assets are as they say and appropriately engage them as they approach. Second, we seek to capitalize on this unmasking and find critical A2/ AD assets by employing a myriad of sensors. For example, F-35s could fly offset from aforementioned unmanned aircraft and ground/seabased systems could collect from a standoff. Third, we seek to land our initial entry forces in the form of amphibious reconnaissance units. These small teams serve both their historical role of shore/hinterland reconnaissance and contribute to the volume of deception activity by deploying similar, smaller unmanned systems with large signatures close-in. The sum of these efforts constitutes a "vapor swarm" with which the enemy must cope. A "vapor" swarm arrives on the battlefield in an already dispersed manner (vice a "cloud" swarm, that arrives as one formation and then disperses).¹³ Both the provocation and reconnaissance efforts are a vapor swarm because they are launched and recovered from stand-in forces already distributed in the contact layer. This swarm serves to confuse and overwhelm the enemy, forcing him to ultimately employ A2/ AD assets to little or no avail.

A2/AD Neutralization/Precision Strike: Having identified the enemy's immediate A2/AD assets, the friendly force now moves to target them with a deliberate, concerted, precision strike. Platforms executing this strike can reside in the contact (e.g. MLR + HIMARS), blunt (e.g. MEU/Naval Force + Cruise Missiles), or even surge/homeland layers (e.g. offensive cyber capabilities). The endstate is the elimination of A2/AD assets that hinder the landing/insertion of reinforcing entry forces (REF).

Harassment and Delay: This subphase hinges on the employment of the REF. Per JP 3-18, REF are "more heavily equipped than initial entry forces in order to increase the fire support, protection, maneuver, or other required capabilities to support initial operations."14 Operating under the MLR/ MEU force design the REF are the individual platoons found within the MLR aboard fast, oceangoing craft. Reinforced with organic precision fires, mobility assets, and a myriad of enablers across the warfighting functions, these units land and immediately begin engaging and harassing the enemy. Acting, too, as a swarm, their main purpose is to delay enemy counteraction and keep him engaged across multiple fronts while slowly attriting him with inherent robust combat capability. By delaying the adversary's counteraction, the REF sets conditions for the main assault to take place.

Main Assault: The main assault force (MAF) comes from the blunt layer. It is the initial "punch" that delivers a severe blow, disabling and disorienting the enemy until surge forces can arrive to deal an uppercut. In Force Design 2030, the MEU fills the role of the MAF. The MEU discharges the battalion landing team, who comes ashore via air, sea, or undersea means. It is vital that this movement, too, be distributed. Though the initial Precision Strike effort is likely to take a severe toll, it is unrealistic to think all enemy A2/AD forces will be eliminated. Thus, the MAF will need to come ashore as a vapor swarm before converging on objectives. These objectives are likely to be aerial ports of debarkation (APODs) or seaports of debarkation (SPODs) as they will best enable follow-on force flow from the surge layer. Seizure of this critical infrastructure will serve as the "uppercut" and allow the joint force to transition to stabilizing lodgment.

Transition to Stabilizing the Lodgment: Seizure of this infrastructure means the force is ready to prepare the space for follow-on forces and transition to Phase III: Stabilization of the Lodgment.

Transitioning to Phase III, it is prescient to avoid mission creep for the Corps. The role of the Marine Corps (MLR and MEU) now focuses on two primary goals: securing lodgment with MAF forces and organizing lodgment for the transition to follow-on forces. Practically, this includes establishing defensive positions in and around secured APODs and SPODs while repurposing available facilities in preparation for follow-on forces. During this transition, it may be prudent to continue employing the initial entry forces and REF to destroy and disrupt deeper enemy precision strike capabilities, maintaining a robust buffer for the securing and organization of lodgment. Of note, we deliberately eliminate the role of "expanding lodgment" within this phase of JFEO as it pertains to the MLR/MEU. Under Force Design 2030, asking the Marine Corps to expand or seize anything beyond initial APODs and SPODs is potentially unrealistic as we shed traditional heavy and armored enablers. Any expansion of lodgment will need to be left to other specialty units arriving from the surge layer as part of the follow-on force.

MLR and MEU forces re-embark. The operational flexibility provided by reembarking MLR and MEU forces once follow-on forces arrive gives the JFC nearly unlimited operational flexibility in the littoral. They now stand ready to assist in sea-control operations as forces flow into the battlespace or execute JFEO elsewhere.

The Point of Greatest Friction: Commanding and Controlling the Force

Command and Control (C2) of any distributed force is a challenge. Often it is a point of failure. Swarms, like the manner we see ourselves operating above, are especially difficult to C2. Experts in such operations have identified effective features of swarm C2. First, the basic unit must be small enough so as to be able to physically control it.¹⁶ With the company-sized element serving as the unit of employment and the

The speed with which JFEO will take place given modern technology and a distributed force will necessitate a rapidly deployable follow-on "fire brigade ..."

As the joint force moves to Phase IV (Introduction of Follow-on Forces), the role of the MLR/MEU is largely complete. Any follow-on forces will need to come from the surge layer, as the Corps will lack the immediate combat power necessary to advance any further. These forces exist to accomplish the ultimate objectives of the Joint Forcible Entry and their introduction provides the joint force commander with increased flexibility to meet them.¹⁵ The speed with which JFEO will take place given modern technology and a distributed force will necessitate a rapidly deployable follow-on "fire brigade," able to provide the combat power required to accomplish the ultimate joint force objective, continue offensive operations, or transition to stability operations. Critically, followon forces relieve MLR and MEU forces ashore, taking from them the necessary tasks of securing and organizing the initial lodgment. Once relieved,

platoon serving as the unit of action, our Force Design 2030 ensures this. Second, swarms mitigate friction by dividing the battlespace into sectors and subsectors, which is easily achievable when designing future JFEO.¹⁷ We envision a platoon or company being given an operating box or subordinate AO. Third, the network organization is "multihub." This means that the force operates without a single overall leader in execution and thus must share common principles and goals in order to achieve operational coherence, a concept that rhymes with decentralized execution as the Corps currently strives for.¹⁸ This leads to the most important (and likely familiar) feature of C2-ing distributed operations: decentralized C2 and mission-type orders. Purists take this to mean initial tasking and broad lateral limits with minimal guidance in execution. The Corps must refine this understanding of decentralized C2 in order to execute future JFEO.

Executing a highly kinetic and complex operation like distributed JFEO will require extreme levels of preparation. Two efforts will enable coordinated execution despite high decentralization. First, MLRs and MEUs will need to dedicate a large amount of time to the development of detailed contingency plans. This will require MLR and MEU staffs to work together closely in development of these plans, likely over great physical distance using virtual teleconference technology. This coordination is especially critical among contact layer units where the "flash to bang" of lowintensity operations to armed conflict may be nearly immediate. After these plans are developed, they need to be wargamed—not just by operational commanders but with tactical unit leaders as well. Detailed wargames drive out likely friction points and more importantly let tactical commanders see how their peers will react at each junction. Executing these wargames will be exacerbated as commanders are pre-distributed across the AOR. A virtual or digital solution will be compulsory.

Decentralizing to this level will also make maintenance of an up-to-date common operational picture in execution extremely difficult. Lack of this accurate vision tends to make commanders less relevant the more removed or higher they are in the chain of command, even as they make far-reaching decisions. Army LTC Trent J. Lythgoe correctly refutes a hyper-decentralized command structure partially for this reason:

> as disorder increases, reality diverges from the shared visualization. The implicit synchronization of otherwise disconnected actions erodes and eventually ceases. Unless commanders and subordinates periodically refresh their shared understanding, they will eventually cease to be on the same conceptual page.¹⁹

He argues for an iterative approach in execution that uses a repeating cycle of synchronization (implementing control), dissemination (communication of intent/orders), initiative (subordinate decentralized execution), and reporting (subordinates feed higher the results of the action).²⁰ This cycle, when overlaid temporally or within an operation's de-

sign, will enable shared understanding, let unit commanders dynamically update intent, and refine initiative-based actions of distributed units.

But perhaps the best step the Corps can take toward executing effective decentralized operations is putting the right Marine in the right job. Outlined in the CPG is the need for an increase/revamp in formal education. This change along with retention of key personnel is essential for DMO. DMO's combination with modern weaponry and communications equipment presents the Corps with the most rapidly kinetic battlefield ever known to man. A very specific type of warrior will thrive in such a place—one versed in threats and capabilities, electronic warfare, EM-spectrum operations, naval integration, and tactics ranging from littoral to multi-domain environments. We must make ourselves extensively trained, educated, and self-studied. Only critical thinkers who regularly exercise such skills will understand how their commander's intent nests within the Corps' inherently strategic mission. This understanding at the junior officer and staff non-commissioned officer level will ultimately save the day and accomplish the mission when friction abounds.

Conclusion

The requirement for JFEO will remain even as the Marine Corps sheds and shuffles capabilities. If anything, the proliferation of A2/AD weapons to developing and unpredictable nations makes such an operation more likely and deadly as the traditional technological overmatch enjoyed by the United States erodes. The Corps' impending design can execute JFEO of the future but only by modifying existing understandings of such operations. The search for answers must happen now. This time of transition raises difficult questions of how the Corps will still answer every call of the nation and remain Semper Fidelis.

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Expeditionary Data

Supplying vital information to the kill-chain in the South China Sea by Capts Eugene Yang & Chris Adsit

s the Marine Corps prepares for conflict with China, a major challenge it will face is the ability to maintain data flow between a distributed network of forward deployed units. In the early phases of combat operations in the Pacific, China will effectively challenge U.S. dominance in air, space, and the information environment.¹ China has specifically developed its warfighting assets to defeat existing U.S. information capabilities. As the Marine Corps redesigns for future conflict in the Pacific, it must consider the extent of its reliance on data availability. To address Chinese information related capabilities while transitioning to new operational concepts, the Marine Corps needs to develop a mesh communications network of unmanned vehicles to meet the challenge of maintaining data flow in an expeditionary environment.

Chinese Informationized Warfare Threatens Existing Data Platforms

Chinese anti-air and electronic attack capability have been growing for two decades and is designed to exploit American reliance on networked strike platforms that have operated unchallenged in recent conflicts.² Chinese emphasis on this new method of "informationized warfare"3 can be observed in the military parade celebrating the 70th anniversary of the People's Republic of China. The People's Liberation Army presented four informationized warfare commands, each led by a major general, displaying an array of electronic warfare, radar, strike, and communications equipment.⁴ China has explicitly stated in their national security strategy that in order to compete in the new environment of warfare, their top priorities are to dominate the information environment and prepare

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for maritime conflict.⁵ Section 3 of the China Communist Party 2015 white paper on China's Military Strategy expands on this shift in mindset for how they will conduct an active defense that prioritizes information warfare.⁶ These informationized warfare units seek to disrupt our information related capabilities and delay our achievement of air superiority and limit our offensive operations. Transmitting data will be a friction-filled struggle against an enemy whose bid for success is their information warfare capability.

Our current warfighting doctrine for fighting at sea relies on a few highly capable, but vulnerable, platforms to pass tactical data over the horizon to subordinate units. Naval forces have relied on the capabilities provided by few exquisite and expensive platforms, such as the E-2 Hawkeye and its subsequent variations since 1964 to link distributed units when they are operating over the horizon.⁷ While starting as the airborne command and control (C2) platform and functioning as the "eyes of the fleet," the most recent variation, the E-2D Advanced Hawkeye, has added capabilities that provide increased situational awareness in the littoral regions.⁸ The Hawkeye's highly trained 5-man crew and \$199 million cost (compared to an F-35 cost of \$110 million) make it a high payoff target that is difficult to replace.⁹ This platform is critical for its detecting and tracking sensors and its ability to create a far-reaching network that enables our networked warfare concept.¹⁰ In addition to the E-2D, satellite communications are relied on to integrate the warfighter across a large battlespace. Marines can employ the new seven billion dollar Mobile User Objective System (MUOS) and its five satellite constellation to transmit data, voice, and video from virtually anywhere at speeds comparable to modern smartphones.¹¹ While an important capability in our C2 infrastructure, satellite communications have limitations and are vulnerable to enemy attack.¹² An enemy that is able to successfully disrupt our existing C2 platforms across a battlespace of hundreds of nautical miles will render our expeditionary precision strike units effectively useless. With our current warfighting concept supporting the dispersed operations relying on a few highly valuable assets, our network and information capability is critically vulnerable to Chinese attack.

A Data-Reliant Future Force

With this Chinese development of capabilities to defeat our existing operational concepts, the Marine Corps is changing in order to meet its requirements to the *National Defense Strategy (NDS)*. The Center for Strategic and Budgetary Assessments concept for implementing a "Maritime Pressure" strategy in the Pacific identifies opportunities for distributed Marine expeditionary operations.¹³ The central concept is the idea of an "Inside-Out Defense," which describes a network of sensors and shooters that can stymie Chinese aggression prior to the arrival of friendly follow-on forces.14 Marine forces in the Pacific would find themselves in a distributed fight spanning hundreds of nautical miles competing for air control and information dominance. The success of follow-on "outside-in" forces depends on the ability for "inside-out" forces to penetrate the Chinese anti-access/area denial (A2/ AD) umbrella and gain a foothold in the air, on sea, and in the information environment.

In order to provide these inside forces, the Commandant has directed the Marine Corps to prepare for expeditionary advanced base operations (EABO) and redesign the force.¹⁵ This emphasis on EABO and the need for the Marine Corps to adapt is driven by changes to some of the fundamental assumptions that we as a force make when planning. Namely, as Gen Berger has stated,

> The Navy and Marine Corps must confront the reality that presumptive sea control is no longer assured for the United States—we will compete for it ... per our amphibious doctrine-sea control and air superiority are prerequisites to success.¹⁶

This change in enemy capability is driving the development of forward deployed inside forces to meet the strategic objective, but the enabling operational and tactical concepts are still in development.¹⁷

¹ The EABO handbook outlines mission sets that will require new capabilities and concepts to employ. "Naval expeditionary forces secure forward bases to advance and distribute joint sensors, shooters and sustainment capabilities,"¹⁸ requires the Marine Corps not just to look at how it secures advance terrain but also how it will support the force with distributed assets for observation and targeting as well as with sustainment capabilities. The mission of,

> Lend resiliency to the joint force by proliferating mobile land-based antiship cruise missiles, anti-air missiles, anti-ballistic, and [ballistic missiles]

that are difficult to target by enemy

long-range precision fires systems,¹⁹ would require distributed units with precise, lethal capabilities that reach farther than current assets at the maneuver unit level. Gen Eric Smith, the head of Marine Corps Combat Development Command, describes the future maneuver unit of the littoral combat team employing

multiple platoon-reinforced-size expeditionary advance base (EAB) sites that can host and enable a variety of missions such as long-range anti-ship fires, forward arming and refueling of aircraft, intelligence, surveillance, and reconnaissance (ISR) of key maritime terrain, and air-defense and early warning.²⁰

While the concepts that will undergird EABO mission sets are still undergoing experimentation and wargaming, some initial outputs and key capabilities are known.²¹ Our existing organic infantry battalions' weapons range and area of influence are not adequate. The *CPG* defines this extensively, as do the Force Design Phase 1 and 2 outputs. A "Rise of Mature Precision Strike Regime" is one of the items identified by the CMC that necessitated a new *Force Design*.²² The technology exists in precision strike to increase the infantry company range by ten to twenty fold, with ground base precision strike munitions.²³ Development of HIMARSbased anti-ship missile batteries and their increase in size across the force will provide Marine commanders the ability to strike enemy assets at long range and with lethal effects.²⁴ Developments in long-range unmanned surface vessels (LRUSV) will increase the ability of units to conduct seabased reconnaissance and strike at distances of hundreds of miles.²⁵ These platforms and technologies, utilized by small units across floating barges, small islands, or from naval platforms, will allow the Marine Corps to deny the enemy large areas of sea and terrain.

While much of the emphasis of the force development is placed on these new lethal capabilities, the force requires a paradigm shift to ensure it develops the supporting technologies to ensure success of these capabilities. Considering a communications contingency plan for the Marine Corps, the "No Comm Plan," we must reassess whether this is still a feasible idea applied to EABO in a littoral environment. At present, when a maneuver unit closes with the enemy, loss of communications is overcome by subordinates exercising initiative while operating within the commander's intent. The challenge of maneuvering in the littoral environment forces us to rethink how we approach communications. In operations with dispersed units that require forward sensors to identify targets beyond line-of-sight, loss of communications eliminates combat power. The robust sensor and shooter network, supported by numerous EABs and naval platforms, could quickly be rendered ineffective by enemy countermeasures if we are unable to develop a more survivable information capability.

Unmanned Vehicles Delivering Expeditionary Data

Inside forces will require communications networks to project power from distributed islands when conducting EABO. While we currently have the means to launch precision strikes via direct communication between sensor and shooter,²⁶ the better alternative is to create a resilient mesh network that expands coverage and allows firing data to quickly traverse and reach multiple distributed firing agencies. Not only does this give forward sensors more lethality via access to additional firing assets through a network of ad hoc C2 platforms, but it also gives those forward sensors more freedom to maneuver. Rather than our current assets, this can be accomplished with a network of attritable unmanned vehicles. As the Commandant's Planning Guidance states, "We must continue to seek the affordable and plentiful at the expense of the exquisite and few when conceiving of the future amphibious portion of the fleet."27 A backbone of unmanned vehicles can form a data highway that undergirds our future operating concept.

¹The concept of using unmanned aircraft systems to function as C2 platforms has gone through multiple iterations.²⁸ Marine innovators have explored applying former Secretary of Defense Jim Mattis' "Guardian Angel" force protection policy with the capabilities of MQ-9 Reapers to function as centralized hubs of communication in support of infantry battalions in urban terrain.²⁹ During testimony before the House Appropriations Committee in April of 2019, then-Commandant of the Marine Corps, Gen Neller, stated the highest priority for modernizing the MAGTF was conducting C2 in a degraded environment and specifically investing in a Fused Integrated Naval Network.³⁰ These concepts lay the foundation for a modern force having the deployable means to create an ad hoc C2 network in a degraded communications environment.

The MQ-9 Reaper Block 5 is an ideal intermediate candidate to provide these mobile ad hoc networks given its long loiter time, onboard communications suite, and relatively inexpensive flyaway cost of \$28 million.³¹ The recent Barrett Asymmetric Digital Datalink Computer and Beyond Line-of-Sight (BLOS) installation kit upgrades increase the bandwidth and data output that grow the platform outside of its current priorities of strike and ISR.³² The Marine Corps requested 3 MQ-9 Reapers in the fiscal year 2020 budget, acquiring its first large group-5 drone.³³ The C2 capabilities this platform brings to the MAGTF can be crucial building blocks for future airborne networks. Another unmanned aerial vehicle (UAV) to consider is the Air Force's EQ-4B Battlefield Airborne Communications Node variation of the Global Hawk, which is tailor made to serve as a C2 node to connect warfighters on the battlefield, but its expensive flyaway cost of \$131 million might not be conducive for scaling.³⁴

Utilizing a Fused Integrated Naval Network in the context of EABO must emphasize the coordination of dispersed UAVs united into a larger network. Instead of a Reaper overhead primarily functioning as a network hub with multiple touch points to the maneuver element below, we should deploy multiple Reapers conducting rear area operations as airborne network routers. This unmanned vehicle network could directly support the DARPA concept of "Mosaic Warfare"35 that seeks to overwhelm the enemy through a multitude of cost-effective platforms that can sense and strike. The distributed and resilient communication network that UAVs provide could allow the Mosaic Warfare idea that "everything" that has a sensor could be connected to everything that can make a decision, and then to anything that can take an action."36 This type of risk-worthy infrastructure backbone can redundantly connect dispersed units with IP-based data exchange. This essentially creates an airborne Internet across the First Island Chain analogous to a tug line in

A backbone of unmanned vehicles can form a data highway ...

a linear ambush. This robust network of unmanned and distributed platforms could also leverage existing investments the Marine Corps is exploring in unmanned surface vehicles. The LRUSV as both an ISR and strike platform can act as another relay in this network. It also provides opportunities to serve as hard-to-kill relay nodes for BLOS control of UAVs in the event of satellite degradation or denial. A network of dispersed, attritable UAVs and USVs ensures that our communications infrastructure will survive first contact with the enemy's informationized warfare doctrine.

We must continue to move past the model of communications that connects two end users directly and consider the resilient networks we need to deliver expeditionary data. This squadron of unmanned vehicles would function as a deployable data network across hundreds of nautical miles to ensure no total loss of situational awareness and tactical data flow. While such a network is unlikely to dethrone the E-2D as the premier naval aviation platform for coordinating assets over the horizon, it is a cost-efficient, disaggregated form of achieving the same networked functionality.

Gaining and maintaining BLOS communication will be crucial for the success of our inside forces in the face of a Chinese attack. Using UAVs to ensure data flow between our integrated forces adds another layer of redundancy to this critical requirement. In the event of existing air and space C2 assets denied by the enemy, UAVs can allow Marine inside forces to degrade the Chinese anti-access/aerial denial (A2/AD) umbrella. An array of UAVs devoted to C2 operations can provide this network on command and ensure that local C2 loss will not equate to complete loss of longrange precision strike and the ability for commanders to communicate with subordinate units.

Conclusion

Dr. James Lacey at the Marine Corps War College initially rejected the idea of EABO.³⁷ He saw it as a step backwards to a strategy reminiscent of the Japanese in the Second World War, with their focus on developing island bases in order to control and influence maritime space. Now an advocate for the concept of EABO, he draws differences between the Japanese strategy and that which the Marine Corps seeks to implement. He states,

> most crucially, the Japanese had a very limited capacity to reach out from their island bases and strike fleets at sea [...] Instead of a mutually supporting joint force, Japanese land and naval forces were fighting two separate wars.³⁸

The EAB without the communication network to utilize its advanced strike assets and leverage the network of sensors and shooters will be condemned to the same fate. There is aggressive action being taken to develop the lethal capabilities to support EABO, but the same emphasis needs to be placed on developing resilient networking capacity that can withstand the attacks that the enemy will launch on our existing exquisite communication platforms. Without the ability to deliver expeditionary data, we risk our operational advantage over the enemy and the success of our future strategy.

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Analog Combat

Put down your mobile devices, turn off your laptops, go outside, and train

by Capt Jamar Alexander

o much of who we are as Marines has become entangled in the digital age. Nearly every aspect of our warfighting functions has become tied to a digital platform and it has changed the focus and face of warfare for our organization. Visit any Marine Corps organization and notice how many Marines are on smartphones, tablets, or laptops. Our embrace of digital products has made us ostensibly proficient, robust, and capable of long-range actions. This over reliance on technology will be a critical vulnerability in a fight with a near-peer adversary. This article discusses how analog training reduces energy consumption, contributes to interactions between human beings, and ultimately influences how we train and how we will fight. Because of this, the Marine Corps must revive analog methods of operating in order to stay proficient in irregular warfare and analog training methods.

Everything from our movement of vehicles and personnel to correspondence is tracked via electronic means. This is done to expedite information processing as well as unilaterally track progress. Some of these procedures have aided in advancing us as a military force. At the same time, it has hindered us into thinking that we need and depend on these systems to function. Unfortunately, these systems not only raise our electronic signature but consume large quantities of energy that is often quite limited in forward operating areas. For the majority of the FMF, the absence of electronic media is perfectly acceptable. It is understood that it is not possible to disconnect completely from technology because of the competing interest of the adversary for the technological advantage. However, there needs to be some

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restraint and redirection of how much we depend on technology and where substitution can be placed. This may result in redundant training in record management but will ensure a perishable skill is preserved.

Energy Consumption

If more units were to consider analog means of tracking vehicle and personnel movements, this would drastically contribute to the lowered amount of energy consumed as well as the signature footprint units provide. Accordingly, "Energy can no longer be glossed over during system developments, operational planning, and mission execution."¹ Marines must be trained not only to maintain their analog skills but understand the cost of energy consumption. The Expeditionary Energy Office is making progress engineering and promoting ways to conserve and quantify energy consumption. Before troops make it to the battlefield, there must be a strong consideration for analog training events that contribute to the responsible use of energy resources. Putting more emphasis on analog training will contribute greatly to the amount of battlefield energy consumed, resulting in lowered signature footprints and logistical requirements, which would meet the demand of the Commandants Planning Guidance. This would also aide in our effort in finding a solution to commanding and controlling in a degraded or contested environment.

Human Interaction

Every unit should have a contingency plan to execute when unannounced white space presents itself. Analog training provides Marines analytical skills that could be honed during mission rehearsal events such as Leader-



Analog training methods can help sustain proficiency in all environments. (Photo by WO Bobby Yarbrough.)



Land navigation without GPS assistance is a type of analog training. (Photo by LCpl Ursula Smith.)

ship Decision Making Events. This also contributes to building esprit de corps and camaraderie among unit personnel. Analog training could be plotting a point on a map, exercising a land navigation course, familiarly with crew served weapons, immediate action procedures, understanding fields of fire, and just refining those common core skills of being a basic rifleman. Analog training could also be focused towards the 5,000-8,000 level Training and Readiness (T&R) standard as Marines practice mission tactics coupled with a valid commander's intent, absent communication to higher. As stated in the Marine Corps Operating Concept, "This increased unit of force can be an intangible factor in the exploitation of a critical vulnerability in irregular warfare."² This training can and should be conducted at the company level, which will involve more hands-on training between platoon leadership. This provides small unit leadership the opportunity to develop other small unit leaders through leader-led training. The act of developing small unit leaders through leaderled training can develop into a routine discipline that will have tremendous rewards.

In order to make this a reality, people need to be made aware of how much we depend on technology and the pitfall of over reliance on technology. Wakefield Research conducted a study on 500 American students and concluded that 38 percent were unable to spend more than ten minutes without some form of technology. More than 70 percent preferred using computers and tablets for note taking and presentations. After 24 hours without technology, volunteers displayed similar symptoms as a smoker trying to quit.³ Analog training provides that link of human interaction that we need to get back to as an organization. Without it, we stand a chance of extirpating the ability to operate in irregular warfare in a contested environment.

There should be an analog standard in every warfighting function ...

Analog Training Events

Most of human history has been fought in what is known as, "three indispensable hardware elements."⁴ This consisted of soldiers, their weapons, and battlespace. Since we have relied heavily on digital equipment creating a standard, failure to sustain a standard has created another standard. The Commandant mentions in his planning guidance that, training should be focused on winning in combat in the most challenging conditions and operating environments ... Marines must be comfortable operating in all potential environments.⁵

As an organization, we need to take a look at what analog systems and training standards made us successful in not only yesterday's battle but tomorrow's war; thus, when the opportunity presents itself, we are more than prepared to operate outside of the confines of the digital domain. There should be an analog standard in every warfighting function that Marines are more than comfortable employing at a moment's notice. Analog training at the company level on a quarterly or minimum annual basis would bridge the gap between yesterday's staff noncommissioned officer wisdom and tomorrow's vouth. The Battle Skills Test (BST) is an excellent opportunity for that staff noncommissioned officers wisdom to be showered on the future leaders of the Marine Corps. For many decades, the BST has existed in various forms, adapting over the years with the main intent to sustain designated individual, non-occupational common skills across the Marine Corps. In December 2017, MARADMIN 693/17 announced the implementation of the revised BST program. Across the Marine Corps, units have strategized different means to accomplish this training. Many units have taken to the field for a week at a time in order to meet the mission. This common core training is not designated for certain periods but should be done often throughout a Marines career. The innovation of technology has taken away from brilliance in the basics with analog training being center focus. Out of the review of 178 sustainable tasks, only 27 of them do not require any form of digital media to conduct.⁶

Analog Training Translated into Combat Readiness

Analog training needs not only to be incorporated but enforced into training standards and managed through Defense Readiness Reporting System (DRRS). This item can be a requirement during a units Commanding General's Readiness Inspection or Field Supply Maintenance Analysis Office inspection, which checks to ensure a unit's supply, maintenance, maintenance management procedures, and overall equipment accountabilities are being properly recorded. DRRS allows the commandant to see the readiness level of a unit. One problem with the Marine Corps is that we use percentages in DRRS to define readiness, and many of the actions we perform in this area appear to check those boxes instead of focusing on how to effectively train Marines. The ability to employ analog skills should rest in a Marines' head and heart. Since they do, those skills should be scored appropriately and documented through a unit's report card.

When we speak in terms of the "blocking and tackling" of warfighting and planning, there are certainly some identifiable skills that require an analog approach and proficiency. Since so many of our platforms rely on the internet, the absence of NIPR capability often presents a critical vulnerability to our organization. If the enemy can shut down NIPR in a contested environment, where will that leave us as an organization? Specifically, GCSS-MC was not designed to be able to function offline. The trick becomes in establishing enduring tactics, techniques, and procedures that allow for sustained operation without access while not completely breaking the system in the long term. One technique that could be employed is using long-range radios to relay maintenance parts ordering. A unit that is forward deployed requests a part replacement but does not have NIPR capability. The requesting unit could draft a nine-line consisting of the part/ vehicle type with relevant information to the supporting unit. That supporting unit then fills the order request and coordinates through the supported unit to have the item shipped out. Doing this gives that Marine the opportunity to train with the radio, practice drafting and receiving a nine-line, conduct multiple quality checks on the part being ordered, as well as that human interaction piece. Overall, this benefits the Marine over a myriad of analog training standards that can be sustained.

Conclusion

In closing, warfare in the future may not involve weapons of the past (spears, rifles, troops) or battlefields. Rather, the battlefield may be fought in cyberspace. With information being entered as the seventh function of warfare, more emphasis is being placed on how we fight from a digital perspective. However, our analog skills should never be glossed over or forgotten about. Being more conscious of the fully burdened cost of the energy we consume, Marines are doing their part to reduce consumption on and off the battlefield. The Commandant has stated that we should be focused on winning in combat in the most challenging conditions as well as ensuring Marines are comfortable operating in the most austere environments. Analog training is that conduit that needs to be embraced so Marines stay proficient in the basics but agile on the battlefield. Wherever the next fight takes us, in the event the lights go out on the internet, it will not be the reason we stop bringing to be bear combat power on the enemy. As a Service, I argue we are better off in the analog realm than some of our sister Services, though the requirement to sharpen those skills and become leaner in our energy consumption is certainly something that we need to take a more consistent, quantifiable approach toward.

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Crew-served weapons proficiency and cross training are ideally suited to analog training. (Photo by LCpl Natalie Greenwood.)

Articulating Doctrine to Junior Marines

Communicate warfighting to the warfighters

by Capt James Whitcher

he foreword of *MCDP 1* asserts that the doctrine must change, "Military doctrine cannot be allowed to stagnate."1 President John F. Kennedy once said, "the more our knowledge expands, the greater our ignorance unfolds."2 Disciplines in the science, technology, engineering, and mathematics update their textbooks yearly. New anatomy books are written frequently to update the understanding of anatomy-once thought a dead man's field. Anatomy should reveal no new findings-the human body is not growing new structures; however, the scientists synthesize new revelations, updating the existing body of evidence. "If we cease to refine, expand and improve our profession, we risk becoming outdated, stagnant and defeated."3 The underlying principles

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fare, and "clarify and refine important maneuver warfare concepts such as commander's intent, main effort and critical vulnerability."⁴ The breadth of this article cannot address the first two goals, and the third goal is challenging. Is the commander's intent, main effort, and critical vulnerability at the epicenter of maneuver warfare? It may be the lowest denominator for maneuver warfare, but it is not articulated well to meet the needs of the junior Marines.

If few Marines are reading the current version of MCDP 1, a revision will not matter. The most junior Marines are going to be doing the warfighting; therefore, it should be an appealing read at the entry level.

of warfare or human competition will never change, but our synthesis and the manner in which we articulate the ideas of warfighting should be updated.

The purpose of this article is not a diatribe against *MCDP 1 but rather* to cover a possible paradigm shift in the way critical warfighting concepts are articulated to the most junior warfighters. *MCDP 1* has three goals: describe the nature of warfare, the styles of war-

The U.S. Government is generally inept at writing and capturing attention of the reader, "The Pentagon and throughout the Services, the misuse and abuse of language obscures major defense issues, alienates non-defense experts and *suffocates ideas*."⁵ *MCDP 1* lacks to capture the attention of the readers. Fewer than expected Marines have read the current edition cover to cover. Why? *MCDP* 1 suffocates ideas with writing that fails to capture attention. It is not that warfighting or war is boring; it is that the U.S. Government does not do a good job at articulating information.

A quick poll of a platoon of Marines in my company yields that two to five percent of Marines have read MCDP 1 cover-to-cover. If Marines are not reading this publication, what is the purpose of revising it? Sage leaders can bicker all day about which content should be included in a revision. If few Marines are reading the current version of MCDP 1, a revision will not matter. The most junior Marines are going to be doing the warfighting; therefore, it should be an appealing read at the entry level. Junior Marines need to have a complete understanding of decentralized control and other essential components of maneuver warfare. A disconnect arises when officers assume that the enlisted men are familiar with the doctrine.

Consider the following excerpt from *MCDP 1* pertaining to commanders intent:

Subordinate commanders must make decisions on their own initiative, based on their understanding of their senior's intent, rather than passing information up the chain of command and waiting for the decision to be passed down. Further, a competent subordi-

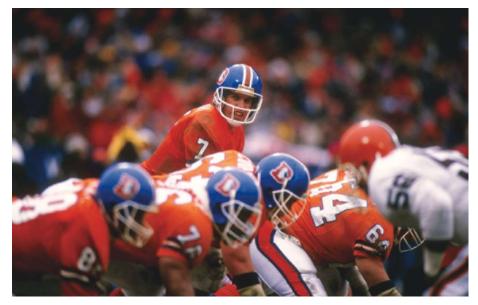


Figure 1. (Figure provided by author.)

nate commander who is at the point of decision will naturally better appreciate the true situation than a senior commander some distance removed.⁶

This information is fine, but it does not enthrall the reader. Consider the following:

> Miami Florida, 1986, the Broncos are competing against the Browns for the AFC championship. Quarterback John Elway has just driven his team to the Browns' 5 yard line. 39 seconds left. Third down and goal to go. Elway moves under center. He notices the cornerback covering wide receiver Mark Jackson is canted to the outside. Elway quickly calls an audible for Jackson to slant inside. Hut. Jackson takes two steps and cuts hard inside-he has a step on his opponent. The right side of the offensive line is collapsing around Elway. Elway cocks back and fires the football. It hits Jackson in the chest. Touchdown. Elway has taken the initiative to call an audible within the coach's intent. Elway was at the decision point and best served to make the decision ... etc.⁷(See Figure 1.)

The excerpt from *MCDP 1* and the football analogy convey the same information. The difference is that one is unremarkable to the audience. The other is more memorable. This analogy

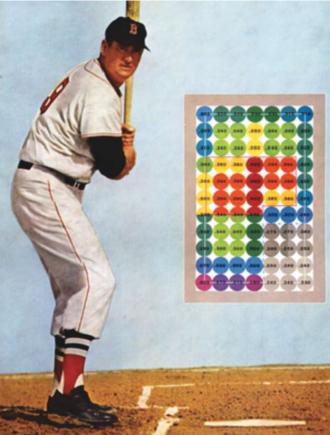


Figure 2. (Figure provided by author.)

will be etched into their mind for an example of being at a decision point and carrying out the commander's intent. An analogy with a simple picture of a leader operating at the molecular level will ingrain the understanding to the junior Marines.

Ted Williams wrote a book in 1970 on The Science of Hitting. Ted has what he calls a "happy zone." (See Figure 2.) Ted was a successful hitter because he committed to pitches that increased his chances of getting a hit. Low and outside was his critical vulnerability. Pitchers often threw in his vulnerable zone. But if Ted was ahead in the count, he did not swing. If the count was 0-2, Ted would be forced to swing at the pitch, placing him at a much higher likelihood of getting out. When pitching to Ted Williams, it is best to get ahead in the count and throw pitches low and outside-forcing him to commit to his vulnerability. If the pitcher is behind in the count, he is forced to enter Ted's strong zone-a place no pitcher would

ever want to be. Future *MCDP 1* revisions should include Ted Williams "happy zone" depiction as it is simply corollary to the CG/CV discussion.⁸

The future of warfighting will be decided at the molecular level. Junior Marines, the "strategic corporal," will make tactical decisions that have strategic ramifications.⁹ Junior leaders operating at the tactical level must have a clear understanding of doctrine. The doctrine does not need to be dumbed down to the lowest denominator, but it does need to be articulated in a manner that engrains itself at the fire team level.

Doctrine is formulated and propagated at the highest level. The disconnect is that the leadership in the Marine Corps is not the best at capturing the attention of the "strategic corporals." Few leaders are promoted within our ranks based off their creative writing skills. Future revisions should include analogies like I described and then some. Great stories should be included like the Trojan Horse with the concept of deception, the "happy zone" and hitting, and stories of heroes. Marines can readily identify the acts of Marines like John Basilone but have little cognizance of the concept of shaping actions. Junior Marines need stories and pictures.

In closing, *MCDP 1* should encapsulate the essence of maneuver warfare. Second, the doctrinal ideologies should be translated into content that appeals to the audience and makes them want to read it—rendering the junior enlisted to become complicit in their own demise of consuming the doctrine.

Notes

1. Headquarters Marine Corps, *MCDP 1, War-fighting*, (Washington DC: 1997).

2. John F. Kennedy, "We Choose to Go to the Moon," (speech, Rice University, Houston, TX, September 1962).

3. MCDP 1.

4. Ibid.

5. Kate Bateman, "War on (Buzz) Words," *Proceeding*, (Annapolis, MD: Naval Institute Press, 2008).

6. MCDP 1.

7. National Football League, "AFC Championship," (Sporting competition, Miami Orange Bowl, Miami, FL, January 1986).

8. Ted Williams and John Underwood, *The Science of Hitting*, (New York, NY: Simon & Schuster, 1986)

9. Headquarters Marine Corps, *MCDP 1-0*, *Operations*, (Washington DC: 2011).



MajGen Harold W. Chase Prize Essay Contest

Boldness earns rewards...

The annual MajGen Harold W. Chase Prize Essay Contest invites articles that challenge conventional wisdom by proposing change to a current Marine Corps directive, policy, custom, or practice. To qualify, entries must propose and argue for a new and better way of "doing business" in the Marine Corps. Authors must have strength in their convictions and be prepared for criticism from those who would defend the status quo. That is why the prizes are called Boldness and Daring Awards.

Prizes include \$3,000 and an engraved plaque for first place, \$1,500 and an engraved plaque for second place, and \$500 for honorable mention. All entries are eligible for publication.

* Instructions *

The contest is open to all Marines on active duty and to members of the Marine Corps Reserve. Electronically submitted entries are preferred. Attach the entry as a file and send to gazette@mca-marines.org. A cover page should be included, identifying the manuscript as a Chase Prize Essay Contest entry and including the title of the essay and the author's name. Repeat the title on the first page, but the author's name should not appear anywhere but on the cover page. Manuscripts are accepted, but please include a disk in Microsoft Word format with the manuscript. The *Gazette* Editorial Advisory Panel will judge the contest and notify all entrants as to the outcome shortly thereafter. Multiple entries are allowed; however, only one entry will receive an award.

Be bold and daring!

Deadline: 30 April

Send to: gazette@mca-marines.org Mail entries to: *Marine Corps Gazette*, Box 1775, Quantico, VA 22134



Learning from the Germans Part II: The Future

Maneuverist Paper No. 5 by Marinus

n the last three decades of the 20th century, the study of German military history, and in particular, the reading of the memoirs of German general officers of World War II, allowed Marines of that era to imagine what maneuver warfare might look like. In the 21st century, a substantial change in the supply of relevant resources raises the question of whether Marines intent upon improving their understanding of maneuver warfare should look for other examples to emulate, experiences to evaluate, and traditions to contemplate.

In 1979, the Old Army Press, a small publisher specializing in the history of the American West, printed 2,000 clothbound copies of a book called *Tiger Jack*. Written by Hanson W. Baldwin, who had won a Pulitzer Prize for his work as a war correspondent in the Pacific during World War II, this book told the tale of MG John S. Wood, a U.S. Army officer who, in the course of the last year of World War II, led the 4th Armored Division in a distinctly maneuverist manner. (British military historian B.H. Liddell Hart once referred to Wood as "the Rommel of the American armored forces.")

Arriving, as it did, during the genesis of the maneuver warfare movement, *Tiger Jack* should have been of considerable interest to Marines. Notwithstanding the long and happy relationship between Mr. Baldwin and the professional journal of the Marine Corps, no mention of the book appeared in the pages of the *Marine Corps Gazette* and few, if any, copies found their way onto the shelves of the libraries of Marine Corps bases.¹ A few Marines may have run across the reviews of *Tiger Jack* published in *Armor* magazine and *Parameters: The Journal of the U.S. Army War College.* Of these, those who were especially adept at chasing down books might have ordered a copy, whether from a full-service bookseller or directly from the publisher. However, only those who were able to spend several days in the reading room of the National Archives, the archives of Syracuse University, or the library of the U.S. Army Command and General Staff College would have been able to delve more deeply into the way John Shirley Wood commanded the 4th Armored Division.

Today, dozens of copies of *Tiger Jack* can be found for sale on the websites of dealers in second-hand books. Better yet, Marines who wish to learn more about MG Wood and the way he handled his division can find dozens of additional works on the website of the Combined Arms Research Library at Fort Leavenworth. These include monographs that reconstruct particular engagements; after-action reports submitted by the commanders of subordinate, adjacent, and supporting units; and accounts that describe the operational context of the decisions made by MG Wood. A broader internet search will turn up additional resources on the operations of the 4th Armored Division during the last year of World War II. These

German tactics and operational art formed much of the foundation for maneuver warfare in the Marine Corps. (Photo by LCpl Angel Serna.)

include four complete histories, three partial histories, three documentary films, two histories of subordinate units, and a table-top wargame—as well as a module for a computerbased wargame.

After feasting on these resources, Marines still hungry for case studies in the effective application of maneuver warfare can easily find much material about Japanese, Israeli, French, Finnish, British, and American battles, campaigns, and leaders. Thus, for example, a Marine interested in the "bicycle blitzkrieg" conducted by the Japanese forces led by LtGen Tomoyuki Yamashita in Malaya in 1942, will, in the course of a short internet search, find enough in the way of papers, podcasts, low-cost wargames, and readily available books to permit an in-depth, multi-sided exploration of that campaign. (Readers contemplating such a project may want to start with the seventeen-episode series of audio programs about the Malayan Campaign produced by the *Principles of War* podcast.)

The existence of this cornucopia of concepts to contemplate, examples to explore, and paragons to imitate raises the question of whether maneuver-minded Marines of the Information Age need bother at all with the study of German military history. At the very least, those seeking to encourage Marines to devote their precious professional development time to the exploration of the German military tradition will not only have to produce persuasive arguments in favor of this choice but will have to deal with a pair of powerful objections.

The simplest argument in favor of the continued study of the German tradition of maneuver warfare stems from the same wealth of sources and resources that enables the study of alternative models. In the years between 1979 and 2019, more than two thousand English-language books about various aspects of the German military experience were published. The same period saw the printing of hundreds of board wargames and the creation of dozens of computer games that attempted to replicate, in various ways, the tactical and operational characteristics of German forces. The existence of this body of work makes possible the detailed reconstruction of a wide variety of campaigns, battles, and engagements. At the same time, it facilitates the placement of such events in the broader context of strategy, politics, and culture.

The availability of so much material about the German military tradition greatly reduces dependence upon the memoirs of general officers that loomed so large in the early days of the maneuver warfare movement within the Marine Corps. Most of these suffered from the sort of defects so often seen in the genre of autobiography. That is, they were self-serving accounts that minimized mistakes made by the authors, omitted information that would have been embarrassing, and placed the blame for fiascos on third parties. The worst offender in this regard was *Panzer Leader*, in which Heinz Guderian took far too much credit for the creation of German armored forces in the 1930s and, in doing so, painted the man most responsible for that development, Ludwig Beck, as a hidebound reactionary. Thanks, however, to the work of English-speaking historians, present-day Marines are in a

position to not only recognize this gross mischaracterization but learn about the troubled relationship between the two officers. (General Beck, who had resigned in protest from the German Army in 1938, had been one of the leaders of the failed attempt to assassinate Adolf Hitler. In the aftermath of this event, which took place on 20 July 1944, Gen Guderian took aggressive measures to ensure the loyalty of German military officers to the National Socialist regime.)²

A more nuanced case for frequent recourse to the wellspring of German military history rests upon the continuous, consistent, and increasingly central role played by many of the fundamental precepts of maneuver warfare in German military culture. That is, while there were many instances where German military professionals violated one or more of these tenets, a deep appreciation for such things as the inherently chaotic nature of war and the importance of a rapid decision cycle permeated the way that German soldiers fought, thought, and taught for more than a hundred years. Thus, while the American, British, and French practitioners of maneuver warfare often waged war in ways that put them

There is no doubt that, during both world wars, members of the German armed forces, acting in their official capacities, violated laws of war that were then in force in a large number of ways.

at odds with the cultures of the forces in which they served, German maneuverists could reasonably assume that they were cooperating with superiors, subordinates, and peers who shared their beliefs and biases. Because of this, Marines attempting to imagine a force in which the practice of maneuver warfare is the norm will find more positive examples of such organizational orthodoxy in the annals of German military history than in the tales of mavericks, eccentrics, and doctrinal apostates.³

A more powerful justification for the retention of the link between maneuver warfare in the Marine Corps and the German military tradition begins, paradoxically, with the two most common arguments offered by the opponents of that enterprise. The first reminds us of the large number of war crimes committed by members of the German armed forces during those conflicts. The second rests firmly upon the incontrovertible fact that Germany lost both world wars.

There is no doubt that, during both world wars, members of the German armed forces, acting in their official capacities, violated laws of war that were then in force in a large number of ways. These crimes included the invasion of neutral countries, the aerial bombardment of cities, the sinking of civilian ships, and the collective punishment of civilians. (Outrages



The actions of the Nazis are indefensible, but the study of German military tradition was indispensable to the development of Warfighting. (Photo: National Archives.)

of the last types usually took place in the course of attempts to enforce one of the central tenets of the law of war of that era: the rule that civilians may not, under any circumstances, participate in combat.) In the Second World War, moreover, German soldiers, sailors, and airmen served a regime that engaged in the persecution of political dissidents, the maltreatment of prisoners of war, and a gargantuan, frequently murderous, campaign of ethnic cleansing.

As horrible as they were, the war crimes committed by German servicemen in the course of the world wars were far from unique. The armed forces of the victors of the Second World War invaded neutral countries, bombarded cities from the air, sunk civilian ships, maltreated prisoners of war, and engaged in the collective punishment of civilian communities. In addition to these things, they conducted campaigns of mass rape, looting, and indiscriminate murder against civilians they were obliged to protect. In addition to this, they ensured the survival and, indeed, enabled the expansion of the communist regime of the Soviet Union, the crimes of which surpassed in quality, and greatly exceeded in quantity, those of National Socialist Germany.

The war crimes of the armed forces of the alliance that won the Second World War does not, in any way, excuse those of their German counterpart. They do, however, present serious students of the art of war with a conundrum. If German violations of the laws of war prevent us from studying German military history, then the war crimes committed by members of the Allied armed forces during the Second World War should prevent us from making use of the American, British, and Soviet experience of that conflict. Similarly, if connection to a reprehensible regime prevents a military tradition, institution, or personality from offering anything of value to present-day Marines, then we may study neither Soviet military theory nor the campaigns of the Red Army, let alone the memoirs of Georgi Zhukov.

What is true for the question of war crimes also applies to the issue of ultimate defeat. If we limit ourselves to the study of the winners of various wars, then we deprive ourselves of the lessons that we might learn from the study of the achievements of Hannibal, Napoleon Bonaparte, and Robert E. Lee—let alone the strategic contests that we ourselves have lost. What is worse, a one-sided study of history leads easily to the false assumption that everything done by the victors contributed to their eventual triumph and every act on the part of the losers drove another nail into their collective coffin. In other words, it replaces attempts to make sense of the complex interplay of multiple forces with the unthinking embrace of all things, whether help or hindrance, associated with the side that achieved strategic success.

Done well, the study of German military history necessarily produces a great deal of discomfort. Even if a Marine begins with a quest to learn about techniques, tactics, or campaigning, he cannot spend much time with the relevant sources without being reminded of fatal mistakes made in the realms of strategy, policy, and morality. Indeed, it is this "elephant in the room" that makes the study of the German military tradition so valuable to Marines of the 21st century. In the course of helping us learn the nuts-and-bolts of maneuver warfare, it draws our attention towards the higher arts of war.

Notes

1. Hanson W. Baldwin (1903–1991) had already written sixteen books on subjects related to national defense and was well known to well-read Marines of the middle years of the last century. Between 1937 and 1980, authors of articles published in the *Marine Corps Gazette* mentioned him 79 separate times.

2. For a sympathetic biography of Ludwig Beck, see Nicholas Reynolds, *Treason Was No Crime*, (London, UK: Kimber, 1976). For an account of the development of the German armored forces in the interwar period that gives considerable credit to Gen Beck, see Bruce Gudmundsson, *On Armor*, (Westport, CT: Greenwood, 2005.)

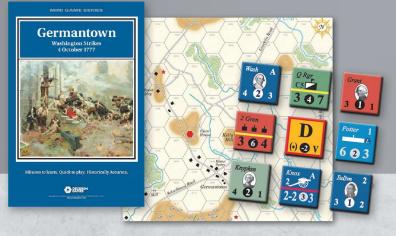
3. The publicists for the memoirs of German generals published in the English-speaking world in the 1950s, chief of whom was Basil Henry Liddell Hart, took pains to present the authors of such works as nonconformist visionaries at odds with their superiors. This view, however, had less to do with German military culture than with the predilections of those promoters and the prejudices of the readers they were trying to reach. For a short treatment of this phenomenon, see Bruce I. Gudmundsson, review of *Guderian: Panzer General*, (Revised Edition, 2003) by Kenneth Macksey, *War in History*, Volume 12 Number 4, (October 2005), pp. 474–476. For a more extensive exploration, see, among others, John Mearsheimer, *Liddell Hart and the Weight of History*, (Ithaca, NY: Cornell University Press, 1988).

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Urban Warfare Training Center

by Capt Michael A. Hanson

he Marine Corps currently operates two dedicated venues that specialize in preparing Marines for combat in a specific operational environment. These are the Mountain Warfare Training Center in California and the Jungle Warfare Training Center in Okinawa. Both were borne out of the painful experiences of Korea and Vietnam, and they seek to prepare Marines to operate and succeed in these challenging environments without having to relearn the harsh lessons of those wars. However, does such a venue exist for one of the most challenging and unforgiving operational settings that Marines are likely to deploy to: the complex environment of a large city? Interestingly, a decade after many of the hard lessons learned in the sprawling urban jungles of Iraq, the Marine Corps does not operate a training venue solely dedicated to urban warfare. The Marine Corps does possess a superb setting for such at the Urban Warfare Training Center in Twentynine Palms, CA, but this refers specifically to the Range 220 MOUT facility rather than a dedicated urban warfare training center with an instructor cadre that specializes in tactics, techniques, and procedures unique to combat in a city.

Currently, the closest thing to this in the Marine Corps is the Urban Section with the Tactical Training and Exercise Control Group (TTECG). These "Coyotes" split their time between supporting urban events and events on the conventional side of Integrated Training Exercise (ITX), such as Ranges 410A, 400, Fire Support Coordination Exercise, the Air Assault Course, Mechanized Assault Course, and the Regimental Assault Course. In addition to all of these events (and others), the Coyotes at TTECG operate a very effective and enlightening urban warfare program unlike anything else in the Marine Corps.

This training package begins with range walks for commanders and staffs and classroom instruction for platoon and squad leaders on topics such as infantry patrolling, tank/ infantry integration, urban assault/clearing, IEDs, sUAS, and tunnel clearing. Next, the Exercise Force (EXFOR) Marines apply this material in three days of squad- and platoon-level lane training that focuses on all of these topics and others,

>Capt Hanson reported to Tactical Training Exercise Control Group at Twentynine Palms, CA, in October 2017. He is currently assigned as an Infantry Instructor and was promoted to his current rank in June of 2018. such as mechanical and explosive breaching. Previously, upon completion of the lane training events, the Exfor battalion applied all of these lessons learned in a blank-fire battalion clear of a portion of Range 220 against a dedicated opposing force. This FEX was based on Operation PHANTOM FURY, the iconic battle in the Iraq War when Marines stormed the insurgent stronghold of Fallujah. In January 2019, the Urban FEX was replaced by the force-on-force exercise. Finally, the urban program at ITX culminates with a company live fire clear of Range 230, where Marines use explosives to breach doors and engage targets as little as five meters away. Altogether, it is a very effective and important training package compressed into a period of about five non-consecutive days with easily recognizable tangible benefits.

... one of the most common, and most valid, after action points of ITX is that there are too many events and not enough time to complete them. There is also a school of thought within the greater Marine Corps that TTECG should only focus on conventional live fire ...

However, one of the most common, and most valid, after action points of ITX is that there are too many events and not enough time to complete them. There is also a school of thought within the greater Marine Corps that TTECG should only focus on conventional live fire, as in the days of Combined Arms Exercise. It was this thinking that led TTECG to drop the urban program after the conclusion of the Enhanced MOJAVE VIPER exercises—only to bring it back about two years later. This was after much of the institutional knowledge left the control group, causing a long and strenuous effort to rebuild the program and regain that wisdom. TTECG has worked very hard to redevelop the urban program essentially from scratch and has succeeded in the last six years in rebuilding a solid program, but once again, talk has returned of eliminating the urban program at ITX in favor of other events. The other events at ITX are fantastic, therefore, it is time to create a separate Service Level Training Exercise Venue—the Urban Warfare Training Center (UWTC).

Though this may sound like a daunting task, it would actually be quite simple to institute. Much of the exercise design and knowledge of events already exists at TTECG, so most of the core material for such a training venue could simply be transferred. The UWTC could just take the existing urban events from ITX and learn from the Coyotes how to execute them. Many benefits would come from this reorganization. First, TTECG would have more time to focus on the conventional live fire events that it is famous for. Secondly, the UWTC cadre would be able to take the urban program developed by TTECG even further and add more events to its own training schedule, such as companylevel lanes and the legacy battalion Urban FEX. Thirdly, the units coming through both control groups would benefit by being able to focus more acutely on the type of events featured by each control group. Lastly, the Marine Corps would benefit by having another SLTE producing center of excellence and epicenter of wisdom in a certain operational environment.

The value of an UWTC with a dedicated training cadre is apparent for all to see. Sadly, only a decade after Marine units concluded combat operations in what was predominantly an urban war in Iraq, the proficiency of Marines in military operations in urban terrain is woefully inadequate. In fact, it is disheartening after all of the blood that was shed and tough lessons learned. Despite this, the Marine Corps continues to operate only an interim solution with the addition of an urban program to an organization that previously focused solely on live fire events in open terrain. As evidence of how important this program is, when it was last disbanded, it was quickly resurrected. Further evidence can be found in ITX after-action reports where units often cite the growth they achieved in urban events and ask for more urban training.

The time has come to establish a service-level training venue that focuses solely on preparing units for combat in large cities. Perhaps if the Marine Corps had done this after Hue City, then Fallujah and Ramadi would not have cost so much in blood.

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Marine Corps University and the Marine Corps Association & Foundation are pleased to announce a call for papers for the annual President's Lecture Series essay contest. This year's lecture series is entitled "Great Power Competition," and the associated essay contest challenges participants to consider how leaders might respond to the security challenges posed by the reemergence of great power competition.

Essay Topic

How might the tenets of Maneuver Warfare inform the Nation's approach in responding to the reemergence of great power competition?

Essays should be at least 1500 but no more than 3000 words in length. Essays are due by 12 February 2021 and must be submitted via email to Ms. Angela Anderson, Director, Marine Corps University Press at angela.anderson@usmcu. edu. Winners will be announced in April 2021.



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Twilight of the Gods

reviewed by Col Eric L. Chase, USMCR(Ret)

he final volume of Ian W. Toll's Pacific War trilogy, Twilight of the Gods: War in the Western Pacific, 1944-1945, will captivate military history experts, World War II aficionados, and those who savor brilliantly spun war histories. The completed trilogy places Toll as the most authoritative, accessible, and thoroughly readable historian of what was, chiefly, America's war with Japan. In scope, timeframe, and style, it compares with Pulitzer winner Rick Atkinson's The Liberation Trilogy—three volumes spanning the war from North Africa to the Mediterranean and Europe.

Toll's opening note in *Twilight* explains how this concluding effort extended far beyond his expectation after completion of the second volume: *The Conquering Tide: War in the Pacific Islands, 1942–1944* (2015), which followed his first volume, *Pacific Crucible: War at Sea in the Pacific, 1941–1942* (2011). Twice delayed by access to ever-expanding new research and detail, he says,

> [t]he war got very large in late 1944 and 1945 ... and I found that I could not do justice to the story without giving it the additional time and space it seemed to need.

Actually, readers may yearn for *more* coverage of land and sea battles, but Toll's mission was not to supersede the many exhaustive histories of specific engagements.

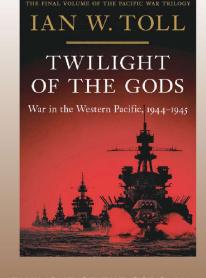
Although it is the longest of the three volumes, *Twilight* spans fewer months than either of the first two. The main action spans mid-1944 to the sudden, abrupt end with the dropping of atomic bombs on Hiroshima

>Col Chase, an attorney in private practice in New Jersey, served as an Infantry Platoon Commander in Vietnam, and retired from the Marine Corps Reserve in 1998 after more than 30 years of active and reserve service. His father, the late MajGen Harold W. Chase, served as a first lieutenant on Iwo Jima, where he was twice wounded.

and Nagasaki (6 and 9 August 1945) and the formal surrender aboard the USS *Missouri* on 2 September 1945. Worth the wait, Toll's trilogy now must rank first on any professional reading list for the Pacific War as a whole.

The main action spans mid-1944 to the sudden, abrupt end with the dropping of atomic bombs ...

Despite the horrific destruction wrought by the sudden attack on Pearl Harbor on 7 December 1941, America's industrial and military might left little doubt about the eventual outcome. Beyond the blow to the Pacific fleet that day, however, there followed more initial setbacks for the United States. Gradually though, America's early confidence was borne out. By mid-1944, Allied victory was just a question of time—albeit a painful and bloody time. The Japanese were still



TWILIGHT OF THE GODS: War in the Western Pacific, 1944– 1945. By Ian Toll. New York, NY: W.W. Norton & Company, 2020. ISBN: 978-0393080650, 926 pp.

not about to surrender in 1944, even though U.S. airpower, naval strength, manpower, and other advantages had advanced so far beyond enemy capabilities that any Japanese ship sent to sea without air coverage became a suicide mission. The advent of new American bombers (especially the B-29 as of June 1944) and new fighters, limitless recruits and hundreds of war vessels, along with a deteriorated Japanese capability to wage war assured American primacy on land, in the air, and at sea throughout the final year of conflict in the Pacific. Adding to Japan's woes were the German surrender in May 1945 and the Soviet commitment to turn its guns against Japan.

Toll adroitly navigates through complex issues and events, and he writes with clarity, precision, and passion. Battle scenes will leave readers breathless. From chapter to chapter, the narrative moves mostly chronologically from place to place, including not only land and sea combat arenas in the Pacific but also American and Japanese home venues and perspectives. The shifting focus often zeroes in upon individual actors, broad war strategies and narrow tactics of the belligerents, mistakes made, and successes achieved—always at an exacting pace and at a steep price of men, ships, and aircraft.

Well-painted vignettes of homefronts in the United States and Japan help illustrate how and why each side made its grand strategy choices. Before the period covered by Twilight, Japan's war had already foundered into hopelessness. Nevertheless, its leaders habitually lied to warfighting personnel, to the public, and to each other about invented victories and future prospects. A compliant, government-controlled media followed suit and fed a constant flow of fiction to the citizenry. Japan's imperial military leadership persisted beyond reason, and its people endured hardship and sacrifice to the point of senselessness.

American decision makers, including President Franklin D. Roosevelt and his military and civilian advisors, heatedly debated overall strategies and priorities—amongst themselves and with their theater commanders. In *Twilight*'s first chapter, Toll describes the "July 1944 summit in Hawaii," attended by Roosevelt, MacArthur, Admiral Chester Nimitz, and the flag officers who were the president's chief war advisors in Washington.

Throughout the conference, options both big and small seemed almost unlimited, and decisions frequently were arbitrary. America's military and civilian leaders sometimes differed mightily in America's prosecution of the Pacific War. In particular, GEN Douglas MacArthur obsessed over his promised "return" to the Philippines, and he vigorously pressed his points of view-dismissing contrary opinions and those who proffered them. For all the years of World War II, he steamed about the "Europe First" policy embraced by Roosevelt and made his resentment known to Washington.

Unlike Europe, where GEN Dwight D. Eisenhower became the Supreme Allied Commander, the Pacific War's American split military leadership sowed command discord. MacArthur presided over the Southwest Pacific Area from his Australian headquarters after his February 1942 rescue from besieged Corregidor, while Nimitz ran the Pacific Fleet from his Pearl Harbor headquarters and later from Guam. These two 4-then-5-star officers offer stark contrasts in style, leadership, personality, and strategic thinking. They could not have been more dissimilar.

Fierce internal debates, occasionally vicious, over operational strategy sometimes led to Washington's intervention. Even then, bitterness could simmer—especially when MacArthur

ern island of Luzon? Would [Admiral] Ernest King win his case for seizing Formosa? Should the Americans land on the coast of mainland China-and if so, would that lead to a wider direct involvement of U.S. forces in the Sino-Japanese war? More broadly, what was to be the endgame against Japan? Could Japan be persuaded to accept terms of surrender prior to a bloody invasion? What role might Hirohito, the Showa emperor, play in the war's final act? These were complicated and immensely important decisions, and they could not be postponed indefinitely. Nor could the presidential election calendar be moved; come hell

With the suffocating nature of fighting in the tropics, the author's compelling descriptions personify endless danger, terror, and dread amidst a backdrop of heat, rain, and disease.

did not get his way. From the beginning, MacArthur emerges as a man of both towering ability and accomplishment, and as a self-absorbed, dishonest self-promoter. His historical connection with the Philippines clouded and drove his judgment. His father had been Governor General of the Philippines, and MacArthur followed in his father's footsteps when he became Field Marshal of the Philippine Army. Before coming off his retirement from the Army and back to a command assignment, he accepted a payment of \$500,000 from the Philippine government-a present day equivalent of \$8 million. When Dwight D. Eisenhower, who had worked under MacArthur, was also offered a (lesser) payment, he refused it.

Twilight's long prologue introduces some of the most pressing political and military tensions of the final months of World War II in the Pacific. Toll establishes:

Fundamental questions of grand strategy remained unresolved in the Pacific. Would MacArthur be given the green light to liberate all of the Philippines, including the main northor high water, the voters would go to the polls on the first Tuesday in November. Inevitably, the big strategic issues looming in the Pacific would be decided in a political season—and they would be viewed through the prism of politics, by contemporaries at the time and by historians ever since.

As in the first two volumes covering 1941 to mid-1944, Toll details in *Twilight* American preparations for and anticipation of the many naval engagements and island battles that fill the narrative from mid-1944 to the end. Among others, these include Leyte Gulf and Leyte (the island), Luzon, Manila, Formosa, Peleliu, Iwo Jima, and Okinawa. In the "island hopping" strategy, many islands were "bypassed," leaving Japanese occupiers to fester without any fight.

On land and at sea, Toll rivets readers with powerful combat scenes. With the suffocating nature of fighting in the tropics, the author's compelling descriptions personify endless danger, terror, and dread amidst a backdrop of heat, rain, and disease. Hand-to-hand combat, including bayonet and knife fighting, became nightly apprehensions and occurrences as Japanese infiltrated Marines' lines or threatened to do so. The amphibious operations and island warfare that shaped the fates of Marines and their Japanese foes were especially fierce, challenging, and dangerous. Toll's portrayal of Marines on Peleliu explains why so many Pacific war combatants suffered from mental fatigue, a precursor of what is now diagnosed as post-traumatic stress disorder (PTSD):

> Marines who had fought on multiple Pacific island battlefields agreed that Peleliu was the worst. The pitiless equatorial sun beat down on a lifeless moonscape of ivory-colored coral rock, and temperatures routinely surpassed 110 degrees. After three days on the line, the men looked like wraiths: lips blistered, hair matted, coral dust caked on unshaven faces. Sweat ran into their eyes, which already ached from the glare of the sun. The acrid smell and biting taste of cordite stung their noses and throats. Their hands were raw and abraded from crawling on the rocks. No one could escape the all-pervading stench of putrefying bodies, rotting rations, and their own excrement. Clouds of large greenishblue flies fed off the unburied dead and tormented the living. Sudden torrential rainstorms came in the late afternoon, and sometimes at night. There was no escape from the relentless artillery and mortar barrages. Even among those who were not directly injured by the blasts, the accumulating concussions sapped their strength and spirit. At times the roar and thud of artillery continued from dusk to dawn, making it difficult to get a wink of sleepbut a man who was exhausted enough could sleep even under the muzzles of a 155mm howitzer, which made a sound ... "commensurate to having a subway tunnel running between your ears." When the guns paused, the marines could hear wounded and dying Japanese crying out in the night. Often they cried out for their mothers, as did dying men of all races.

More than most retrospectives on the Pacific War, *Twilight* focuses on the Japanese kamikaze phenomenon, which expanded in 1945 into a central strategic theme in Japan's planning

and operations as its hopes for any positive end fell apart. After the Battle of Midway, 4–7 June 1942, almost no one saw any likelihood of a Japanese victory. Nevertheless, although often at each other's throats, the Imperial Army and Navy fought on with grit, determination, and feigned optimism. Suicide missions became prominent in the war's last year. Toll wrestles with the question of how a nation could justify continued bloodletting in such hopeless circumstances—sacrificing thousands of young lives, with no prospect of a favorable outcome. He rationalizes the kamikaze spirit, as wild and sacrificial as it was, as follows:

> For the nine remaining months of war to come, this was to be Japan's guiding strategic vision: to display to the Americans the full force and fury of their Yamato spirit. A nation willing to turn its young men into guided missiles was a nation that would fight to the last man, woman, and child-and a nation willing to fight on such terms could not be conquered. If the Japanese raised the stakes high enough, the Americans would flinch. Their leaders, beholden to American voters, lacked the stomach to fight to the point of civilizational annihilation. Perhaps the Pacific War was already lost; in private councils, among themselves, the junta's leaders were increasingly willing to admit it. But there was a difference between defeat and surrender, between losing an overseas empire and seeing the homeland overrun by a barbarian army. The man-guided missiles were never a realistic bid for victory, but rather a talisman to ward off the horror of total defeat. Even if the official propaganda would not yet admit it, the battle for the sacred islands of Japan had already begun, and the kamikazes were its first line of defense.

Thousands of inexperienced Japanese pilots trained briefly for one-way suicide missions to crash into American ships. Most fliers never made it to their target, but those that did took huge tolls. Kamikaze missions sank or disabled numerous ships and killed thousands of Sailors. Nor was the tactic limited to airplanes. Boats and individual divers targeted warships as well. For American naval vessels in support of the Okinawa campaign (26 March–2 July 1945), the kamikaze threat was front and center, night and day, with no abatement in the reality of the danger to American men and ships.

For naval personnel at sea and for combatants ashore, Okinawa exacted the highest casualty rate of all the islands. The civilian population, too, was devastated. As with Peleliu and Iwo Jima, Japanese commands were now more adept at defending and killing than they had been in the earlier era of suicidal, wasteful bonsai charges and defenses against amphibious forces as they landed. Well-entrenched units, underground and in caves, imposed significant prices in blood from Marines and soldiers for every yard of island gained. The time to pacify Iwo Jima and then Okinawa took considerably longer than any U.S. planners foresaw.

Japanese planning left no doubt: Had there been post-Okinawan U.S. invasions into the Japanese homeland, kamikaze missions were to become primary weapons in Japanese strategic thinking. By then, its offensive combat operations and options were virtually nil. While American industry provided endless firepower in aircraft, warships and manpower, Japan's fighting capability had disintegrated across the spectrum.

Thus, as American commanders prepared for the presumed inevitable landings on Japan's mainland, casualty estimates for friendly forces were horrific. Planning forecasts of civilian and enemy casualties were in the *millions*. The Japanese continued a stated policy of self-destructive bravado, saying they would rather sacrifice tens of millions of their people than surrender. The Pacific War, it appeared, would perhaps continue into 1946, 1947, or even beyond.

Seen in these perspectives, new President Harry S. Truman's decision to deliver the first atomic bomb on 6 August 1945 was not surprising. The development and making of the weapon (the Manhattan Project) was a highly secretive years-long venture, and even President Truman knew little about it before Roosevelt's passing on 12 April 1945. Truman anguished over the casualty counts on Iwo and Okinawa. He faced a realistic prospect of 1,000,000 U.S. casualties in taking and occupying mainland Japan.

In 1945, hundreds of U.S. Army Air Force bombing runs using conventional bombs against Japanese cities had exacted, through fire storms, a toll in people and mostly wooden structures that greatly exceeded the monumental destruction and numbers of deaths (mostly civilian) caused by the atomic bombs dropped on Hiand Admiral William "Bull" Halsey, characterizing both men, in spite of their formidable strengths, as vain, shallow, self-absorbed, and egocentric—sometimes to the detriment of their missions and the men they led. MacArthur was a "confabulator," says Toll, and he marshalls proof of the general's habitual dishonesty and self-promotion. Both MacArthur and Halsey ascended to five-star rank in December 1944, along with the other six to reach that rank in World War II (Gens George Marshall, Eisenhower, and, Henry "Hap" Arnold, and Admi-

Every American war college and every university leadership program should include Toll's Pacific War trilogy as an indispensable platform to illustrate and instill the need for, and advantage of, humility and perspective in high leadership.

roshima and Nagasaki. As Toll relates in the waning pages of *Twilight*, there was significant Japanese military opposition to surrendering after the Hiroshima devastation. Such resistance continued *even after* the Nagasaki detonation three days later.

For many wearing the Japanese uniform at the highest levels, death was infinitely preferable to the humiliating dishonor of capitulation. It took an unprecedented intervention by Emperor Hirohito to overcome the resistance against yielding to the Allied demands for unconditional surrender delineated in the Potsdam Declaration of 26 July 1945. Even after Hiroshito's announcement on 15 August, some holdouts tried to resist the surrender decision. The only "concession" was to allow the Imperial house to survive.

More so than in volumes I and II, throughout *Twilight*, Toll renders his own opinions on tactics and strategy, and especially on the conduct of operational leaders. He assesses personal and leadership fallibilities of major commanders of both American and Japanese forces. Most prominently, however, he lambastes MacArthur rals William D. Leahy, Ernest King, and Chester Nimitz). GEN Omar Bradley received his fifth star years later in 1950.

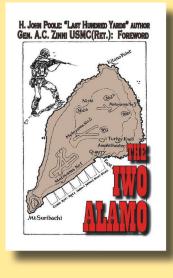
In volume I, Toll had already described briefly the disastrous lack of preparation and response by MacArthur's forces at Clark Field in the Philippines where, mere hours after the 7 December 1941 air attack on Pearl Harbor, the Japanese nearly wiped out a huge parked U.S. air contingent. In *Twilight*, Toll revisits that catastrophe and seems convinced that MacArthur could, and should, have been relieved at that time. "Although the truth would not come out until years later, MacArthur's conduct on the first day of the war had been at least as culpable as that of [Admiral Husband E.] Kimmel and [General Walter C.] Short," who were in command positions on Pearl Harbor on 7 December 1941. Both Kimmel and Short were "reduced in rank, forced to retire, and run through a gauntlet of nine largely redundant investigations." Toll establishes a running theme, suggesting that, but for their hugely popular public personas, the flaws and demonstrably faulty decisions of both MacArthur and Halsey would have compelled their relief. In MacArthur's case, such a fate did await him in 1951 during the Korean War, long after World War II, when Truman relieved him for insubordination.

Twilight is a worthy and commendable finish to Toll's magisterial three volume Pacific War treatise. He draws plentifully from Samuel Eliott Morrison's incomparable 15-volume History of the United States' Naval Operations in World War II. Morrison's classic work, however, is a hard slog, not just because of its length but also because of a scope that spans across the Atlantic to North Africa, the Mediterranean, and Europe. Moreover, decades after the publication of Morrison's final volumes, innumerable new facts have come to light, and Toll's rendering is fully as fresh as it is authoritative. Pacific War sources abound, and Toll is generous in appropriately weaving a few citations from others into the narrative along with his own graceful and captivating writing. For example, in sections covering Peleliu and Okinawa, he quotes liberally from Marine Eugene Sledge's classic With the Old Breed: At Peleliu and Okinawa.

Twilight serves as a compendium of lessons in leadership—especially for military leadership but also for other endeavors. MacArthur and Halsey were certainly men of proven talent, personal courage, and strategic sense. Yet, in innumerable instances, their personal failings dominated them, unleashing unnecessary and untold harm. Every American war college and every university leadership program should include Toll's Pacific War trilogy as an indispensable platform to illustrate and instill the need for, and advantage of, humility and perspective in high leadership.



For Further Reading



THE IWO ALAMO. By J. John Poole. Emerald Isle, NC: Posterity Press, 2020. ISBN: 978-0-9638695-0-0, 320 pp.

reviewed by LtCol K.A. Knowles, USMC(Ret)

Your CO has been conducting a PME series that has focused on battles during World War II. Your unit has studied Guadalcanal, Bougainville, Tinian, and Saipan, among others. Today, you were given the next battle to be studied. The CO has also indicated that a professor from a local college, whose field of study is World War II, will be presenting a short lecture to set the stage for the PME discussion. The battle to be studied is Iwo Jima.

What is the first image that entered your mind when the PME topic was announced? Invariably, that image for Marines is the flag raising on Mount Suribachi. All other actions during that battle fade as that snapshot event dominates our thoughts; an event that happened on the fifth day of a battle that lasted for 36 days.

H. John Poole, a retired Marine lieutenant colonel, provides the reader with an in-depth and detailed analysis of this battle. His stated purpose is to challenge the reader to "try to imagine how current GIs would fare at the Iwo Jima of 1945."

The author begins by giving us a detailed description of the Japanese defensive preparations. From the natural beach obstacle—loose volcanic sand—that made rapid movement slow and tedious to the extensive excavation and development of strong point positions built around a central pillbox, LtCol Poole gives the reader an appreciation of how the Japanese intended to defend lwo. His study of this battle includes an analysis of who the enemy was, the enemy's dedication to his cause and willingness to fight regardless of circumstances. From the maps that show U.S. estimates of the situation and defensive line locations to the cut away drawings that provide the reader an idea of the extensive array of tunnels and underground support system utilized by Japanese forces during the battle, the reader will gain a better understanding of the enemy faced by the U.S. landing force.

Throughout his writings, the author has demonstrated his ardent advocacy and support for the welltrained individual infantryman, small unit tactics, and the initiative demonstrated by junior Marines and NCO leadership. This book is no different. As Marines, we are familiar with the names of Harold Schrier, Ira Hayes, and Michael Strank. In *The Iwo Alamo*, we are introduced to the names of other Marines whose bravery under fire may not be as familiar to us, such as Merritt Savage, Conrad Shaker, or Tony Stein and their heroic actions during the first day of the battle. This was a battle that lasted 36 days, and Marines like Ray Wilson Jr., Franklin Sigler, and Frank Palmer clearly demonstrated that "uncommon valor was a common virtue."

I recommend this book to Marines for the detailed descriptions provided of how a future enemy might prepare defensive positions and how important it will be to understand the enemy we are facing. If there is one drawback to the book, it needs to be re-edited before going into a second publishing.



reviewed by Col Andrew R. Finlayson

his book is one of those rare historical narratives that explains in rich detail a battle that was little understood or reported on at the time it was fought but was of strategic importance and heroic dimension. It is the story of the courageous defense of an isolated U.S. special forces camp called Kham Duc in 1968 at the height of the Vietnam War. The authors of this book are both Vietnam War veterans, and one was a key participant of the battle and in a position to observe the deadly encounter from beginning to end. James McLeroy's firsthand recollections add keen insights into many aspects of the battle that have been missing in previous accounts. Both authors have thoroughly researched the battle using American and North Vietnamese documents along with numerous interviews with the men who fought this battle. The result is a book that explains in great detail the American and North Vietnamese strategies that produced the battle, its conduct, and its aftermath.

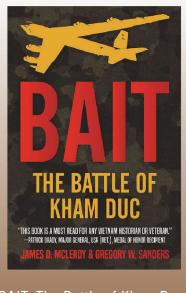
Because the Battle of Kham Duc was fought at a time when press interest was focused on events in other regions of South Vietnam, the heroic stand at Kham Duc was given a cursory treatment by American journalists, and the nonfactual version of the battle propagated by subsequent historians has become part of the conventional narrative about this battle. The authors prove quite conclusively that, contrary to press reports at the time, the battle was not a victory for the communists but actually an American tactical success and achieved the strategic objectives established by the senior American military leadership.

The Battle of Kham Duc took place in early May of 1968 at a time when negotiations were about to be>Col Finlayson served as an infantry officer with 32 months of combat experience during the Vietnam War and has written two books about that experience and many articles on military subjects—to include several award-winning articles and monographs.

gin between the United States and the North Vietnamese in Paris. Seeking to strengthen their negotiating position by achieving a decisive military victory over the Americans, the North Vietnamese decided to follow the play book they had used at Dien Bien Phu in 1954 and at Khe Sanh during Tet in early 1968 by seeking to attack and destroy an isolated outpost.

... the North Vietnamese decided to follow the play book they had used at Dien Bien Phu in 1954 and at Khe Sanh during Tet in early 1968 by seeking to attack and destroy an isolated outpost.

They chose the special forces camp at Kham Duc for their target since it offered many advantages to them. GEN Westmoreland was forewarned of the attack and apparently intended to use the camp as bait so as to lure the North Vietnamese into a trap using overwhelming air power to inflict heavy casualties on the communist



BAIT: The Battle of Kham Duc. By James McLeroy. Philadelphia, PA: Casemate Publishers, 2019.

ISBN: 978-1612008127, 272 pp.

attackers—thus the title of the book *BAIT*.

Of note to Marines, in a preliminary attack on an outpost near Kham Duc at a place called Ngok Tavak, two Marines in an attached artillery platoon received the Navy Cross for their heroism in fighting off that attack.

McLeroy and Sanders explain in vivid detail the preparations for the battle by both antagonists, to include extensive analysis of the training and equipment each side had and the respective orders of battle. They also provide excellent and never seen before photos of the camp, as well as detailed graphics showing the organization of the camp's defenses. Their hour by harrowing hour of the defense of the camp is riveting and graphic in a prose style that is both easy to read and descriptive.

This is a book that will appeal to both the military professional and the public, but its greatest value will be to historians who seek the truth about this largely misunderstood battle of the Vietnam War.



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