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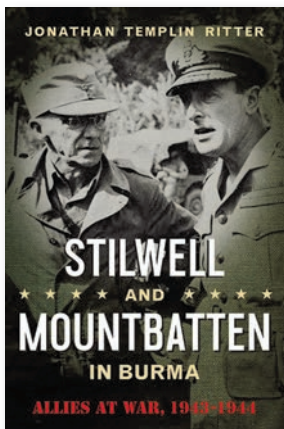




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**The MajGen Harold W. Chase Prize
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See p. __ for instructions.



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JANUARY 2019

Editorial: Marine Special Operations Forces

2019 is upon us and I trust all *Gazette* readers and members of the MCA&F are recovering well from their celebrations this holiday season. This month, for only the second time, the *Gazette* is focusing on Marine Corps Special Operations Forces. Starting on page seven with an introduction from MajGen Daniel D. Yoo, MARSOF's Commanding General, we present the Raiders' strategic future vision document, "MARSOF 2030." This aspirational, yet realistic, vision is more descriptive than prescriptive and serves to illustrate the mission profiles and capabilities that the Raiders of MARSOF will provide to joint force commanders in the coming decade. Indeed, the vignettes in this document bring to life the range of potential future missions of the Raiders from security cooperation with regional partner nations, to conflict with peer adversaries. Special thanks to Col Travis Homiak and LtCol Tony "Bull" Marro, USMC(Ret) for providing MARSOF's content for this edition of the Corps' professional journal.

Also in this edition, we present "Marine Corps Logistics Command 101" by MajGen Craig C. Crenshaw and his staff on page 31. Readers will recall our August 2018 edition which focused on Marine Corps Systems Command and the acquisition of equipment for Marines. This month's feature explains the "rest of the story" of equipment lifecycle management in the Corps.

In our leadership section this month you will find on page 57 "Command Climate and Ethical Behavior" by Col Brian Kerl, USMC(Ret). This article is based on Col Kerl's extensive doctoral research including personal interviews with numerous Marine leaders and every living Commandant of the Marine Corps.

A final highlight in this month's magazine is "The Marine Space Support Team Concept" by Maj Joseph Horvath, et al., on page 67. The author and his team look at the role of the Marines in space operations as our civilian leadership continues to study the efficacy of establishing a "Space Force" as another branch of the Armed Services.

For the professional Marines who dedicate their personal time and effort to participate in the intellectual life of the Corps, this month's *Gazette* presents insights into the future of MARSOF. How does this MARSOF vision inform the "rest of the Corps?" Where is the Marine Corps' counterpart to this clear and compelling vision of future operations? Is it *Expeditionary Force 21*, the *Marine Operating Concept*, or *Littoral Operations in a Contested Environment*? How do these concepts describe how the Corps will meet the requirements of the National Security Strategy and the mandates of National Defense legislation? Currently lacking in our professional debate is the discussion of proposed answers to those and other Service-defining questions. Indeed, given the primacy placed on special operations and the precise application of military force while minimizing the risk to mission and forces in areas contested or denied across all domains, what role does the Marine Corps plan to play in forced entry operations in the future?

As our Commandant shares in a letter on page 5, the Corps' senior leadership is following the discussion in the pages of the *Gazette*. I can think of no stronger encouragement for potential authors who want to take on the tough issues facing our service.

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.

LtGen Trainor Essay Contest Winner Announced

The winner of the inaugural LtGen Bernard E. “Mick” Trainor Military Writing Award 2018, sponsored by the 1st Reconnaissance Battalion Association, MCA&F, and the *Gazette*, was selected by the Editorial Panel of the *Marine Corps Gazette* in November 2018. Entrants were asked to address a future operating environment in which the control of terrain will not be enough for success on the battlefield and if detected, you are targeted.

The winner is Maj Robert Schotter, for his essay titled “Learning to Win the Next Fight.” Maj Schotter will receive \$1,000 and a commemorative plaque from the 1st Reconnaissance Battalion, the MCA&F, and the *Marine Corps Gazette*. His article will be published in and upcoming issue of the *Gazette*.

The Editorial Advisory Panel also selected two articles for honorable mention. Col Mike Fallon, USMC(Ret) and Capt Yicheng Garrard received honorable mention for their articles, “Tactical ‘Hot Spot,’ a 2025 Squad Fight” and “Using Revolutionary Technology,” respectively.

Corrections

The photo caption on page 80 of SES Michael Strobl’s article “Military Conscript and Forced National Service” (*MCG*, Oct18) should have read “Serving in the Armed Forces includes serving with foreign military forces.”

The article “Getting Logistics Data Right: Whose job is it? Strategic corporals are wanted in logistics” (*MCG*, Aug18) should have been credited to Stephen A. Pawlow and Kevin J. Kelly.

The article “ERSS: Forward deployed medicine from a T-AVB Platform” (*MCG*, Aug18) should have been credited to LCDR Dynela Garcia-Baran and Col Andrew Niebel.

The book review “An Iwo Jima Journal” (*MCG*, Aug18) should have been credited to MAJ Joshua J. Gilliam, USA.

Kiser Family Essay Contest Winners Announced

The winners of the Kiser Family Irregular Warfare Essay Contest for 2018 were selected by the *Marine Corps Gazette* Editorial Panel in November 2018. The theme for the 2018 essay requested that entrants address the theme: “Understanding the human dynamics of the battlespace: Building partner capacity in complex terrain.” Writers were asked to address the role understanding belief systems might play in the operational and decision making processes for Marines preparing to deploy.

The winner of the 2018 essay contest is Capt Mike Chapman for his essay titled “Twelve Cups of Tea.” He will receive \$2,000 from the Kiser Family Foundation.

Second place is awarded to LtCol Solon McGill for his essay “IW Rising.” LtCol McGill will receive \$1,000 from the Kiser Family Foundation.

Reunions

Donald E. Davis Squadron Reunion

From 21 to 24 March, the Marine Corps Aviation Association is hosting the Donald E. Davis Squadron’s 2019 reunion in Pensacola, FL. For more information, contact Wayne Miller at millerwayne559@gmail.com or 973-441-3636.



Then-BGen George W. Smith, Jr.

General Officer Announcement

On 18 September, Secretary of Defense James N. Mattis announced that President Donald J. Trump had made the following nomination:

MajGen George W. Smith, Jr., for appointment to the rank of lieutenant general and assignment as Senior Military Assistant to the Secretary of Defense. Gen Smith is currently serving as the Special Assistant to the Director, Joint Staff, Washington, DC.

LCSs Commissioned

On 20 September, the Navy christened its newest littoral combat ship, the USS *Kansas City* (LCS 22). The christening took place in Mobile, AL. The *Kansas City* is an Independence variant of the LCS.

The *Kansas City* is the second ship to be named after Missouri’s largest city. Although initially christened as a World War II, Oregon City class heavy cruiser, the construction of that ship was halted with the end of the war in sight. The first *Kansas City* was commissioned in 1970 as a Wichita class replenishment ship that saw service in Vietnam and Operation DESERT STORM.

On 17 November 2018, the Navy commissioned its newest Freedom-class LCSS, the USS *Sioux City* (LCS 11). The future *Sioux City* is the sixth of the Freedom-class designed ships to be commissioned. The ship is also the first naval vessel to be named in honor of Sioux City, IA.

LCS ships are modular, reconfigurable ships that are designed to meet fleet surface warfare, anti-submarine, and mine countermeasures missions in littoral regions. Modular weapons, sensor systems, and various manned and unmanned systems can be employed by the ship.



Letter to the Editor: Keep Writing—Your Corps is Listening

▣ The *Marine Corps Gazette* has long served as a vibrant marketplace for the exchange of ideas to advance the knowledge, interest, and esprit in the Marine Corps. In an age of increasing access to information and short-form opinions through social media and countless outlets, the *Gazette* remains an ideal platform for impactful professional dialogue.

I am particularly inspired by recent articles penned in the *Gazette*. In November, 2nd Lieutenant Patrick Cirenza questioned the Corps' ability to win in an air-contested environment by highlighting training and education deficiencies at The Basic School, while dutifully proposing several potential solutions. In the same November issue, articles by Maj Gordon Emmanuel et al. and The CHALK Board challenged how we recruit and retain leaders, specifically citing the need for increased maturity among Squad Leaders and NCOs. I agree! We will publish a change to high year tenure for Sergeants before the end of the year. These and other articles were not only thought provoking, they were written by young aspiring leaders of our Corps with recent experience closest to the flame—a necessary ingredient to blend with the collective operational experience and strategic outlook of our service.

We derive our institutional success from such inquiry, dialogue, and debate. Just as Clausewitz characterized the constantly evolving character of war as a “chameleon,” our force must be equally adaptive in how we organize and prepare for war. Doing so requires an insatiable intellectual curiosity and the courage to advocate fresh, unconventional, and sometimes controversial ideas.

To those who continue to take the time to challenge and inspire our service in the *Gazette*, I have one message: I am listening ... your Corps is listening. Keep challenging the institution, keep tackling hard problems, and keep writing!

Gen Robert B. Neller

Warfighting Revisited

▣ Rarely do book reviews elicit spirited responses, so I am both honored and pleased that my critique of Dr. Anthony J. Piscitelli's, *The Marine Corps Way of War* (MCG, Mar18) did so, generating subsequent commentary from the author and a leading maneuver warfare advocate from the 1980s, Col Mike Wyly, USMC (Ret). I hope *Gazette* readers share my gratitude to both men for continuing to make this a meaningful discussion in our professional journal.

Having re-read Dr. Piscitelli's letter (MCG, Sept18) and the concluding chapter of his book, I find that we agree

The ways in which military organizations reform themselves to prevent repeated failures, avoid complacency and remain useful to the Nation, is an important story that deserves to be told.

on more points than not. Nor does he owe anyone an apology for his publisher's oversights. Still, the next revision of his book will be strengthened by a more balanced presentation of the maneuver warfare debate that animated professional discussions around the Corps for nearly two decades. The so-called “opposition” was not composed of subordinate officers who refused to carry out orders; rather, they were committed professionals who shaped the broader discussion that ultimately defined the Marine Corps ethos after Vietnam. The interactive nature of the debate sharpened maneuver warfare's foundational ideas and brought about institutional change.

The ways in which military organizations reform themselves to prevent repeated failures, avoid complacency, and remain useful to the Nation, is an important story that deserves to be told. Not just for history's sake but, more importantly, so that successive generations of Marines might gain insight from lessons learned in the past. The latter have

institutional responsibility to ensure doctrine keeps pace with the changing character of war and evolving threats our Nation faces. It is through this lens that I offer the following additional observations.

Dr. Piscitelli alludes that warfighting philosophy serves an important and necessary function in any military organization; however, philosophy alone does not produce battlefield victory. As the French discovered in WWI—when their philosophy of war became so sacrosanct as to escape dispassionate scrutiny and evolved into the cult of the offense—generalized conceptions of war still require armies

to apply their visualization of combat to the specific operational context of each specific conflict.

The French were not alone in misunderstanding the evolved nature of war. The British also discounted changes in warfare that had been underway for decades and continued to believe moral factors could overcome revolutionary changes in firepower. Gen Douglas Haig's thoughts on these matters reflected Britain's outdated warfighting philosophy of the day:

The Staff College, and (General) Douglas Haig did accept the fact of modern firepower, but while making adjustments to tactics, they came to the conclusion that, other things being equal, it was simple solutions such as morale, discipline and leadership that decided battles. So, the problem of modern fire-power was to be solved by intensifying morale, discipline and leadership rather than using the same fire-power to devise appropriate solutions ... this emphasis (on human factors) tended to distract Haig and others from fully appreciating the change that were taking place ... only the

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mounted arm could win the decisive victory—success in battle simply opened the way for cavalry to achieve the decision.¹

This issue is still relevant with today's leaders and Marine Corps Commandant Gen Robert B. Neller, who stated publicly in June 2017 that the Marine Corps is "not currently organized, trained, and equipped to face a peer adversary in the year 2025." The Commandant's candid pronouncement has prompted some to question why the Corps is not adequately postured for success against our most dangerous adversaries despite a \$41 billion annual budget.

No doubt, there are multiple answers to this question; however, a key explanation is that warfighting philosophy must be complemented with a viable concept that translates philosophy into operational activities. As one writer has noted: The operational concept filters theory through the lens of geopolitical circumstances, national culture, historic context and technology to frame a doctrine of war—the codification of practice. An operational concept may or may not be explicitly set forth in doctrine, but it drives doctrine nonetheless. Doctrines that can demonstrate their basis in a clear and widely understood operational concept are far more effective than those that cannot.²

Since *Warfighting* was first published in 1989 (and most recently updated in 1997's *MCDP 1*), the Marine Corps has drafted several operational concepts (e.g., Maritime Prepositioning Operations, Operational Maneuver from the Sea, Enhanced Network Seabasing, Expeditionary MAGTF Operations, Ship-to-Objective Maneuver, Sustained Operations Ashore, Distributed Operations, and Littoral Operations in a Contested Environment) that have enjoyed varying degrees of longevity. Unfortunately, before some reached full maturity, they were eclipsed by the speed of change in the security environment, adaptive nature of our adversaries, and bureaucratic limitations. So, it remains to be seen if the Corps' latest concept—Expeditionary Advance Base Operations (EABO)—will serve effectively as David

Fastabend's "operational filter" for fighting a peer adversary in a degraded and contested environment.

Ingenuity and innovation will help the Marine Corps overcome EABO's logistical, mobility, and survivability challenges. If not, then EABO must be jettisoned in favor of a better operational concept that is subjected to rigorous experimentation and validation before being adopted. This cycle of rapid concept development and experimentation which, if done correctly, may involve as many failures as it does successes, is an essential part of creative military discovery. It also inoculates military institutions against falling in love with either their warfighting philosophy or their concepts.³

The same holds true for official doctrine, which may easily become irrelevant unless it is frequently updated. Worse, aging doctrine could potentially become worshipped as a kind of high religion—much like the offense and horse cavalry were in earlier eras—promoting inaction, intellectual stagnation, and slavish adherence to warfighting methods that are ill-suited for modern conditions. On this point, I think Col Wyly and I agree. My argument is not that Marine Corps warfighting doctrine (i.e., maneuver warfare) has outlived its usefulness. Rather, that after two decades (three decades if we use the original 1989 *FMFM 1* publication date), Chapter 4 of *MCDP 1* will benefit from a discussion of today's information environment; the contribution Marines are now being called upon to make in the competition phase short of armed conflict; the imperative of employing land-based long-range fires (both non-kinetic and kinetic) with fires in other domains; the impact of unmanned technology on force development; and organizational dexterity required to integrate with other joint/combined forces (whose warfighting philosophy and operational concepts may not embrace those held dear by any single U.S. Service). Ultimately, we must work to keep alive many of maneuver warfare's fertile ideas vice simply admiring the achievement and allowing it to become an artifact of military history.

Notes

1. Tim Travers, *The Killing Ground: The British Army, the Western Front & the Emergence of Modern War 1900-1918*, (United Kingdom: Pen and Sword, 1987).
2. David A. Fastabend, "That Elusive Operational Concept," *Army Magazine*, (Arlington, VA: June 2001).
3. For additional insights into the critical role experimentation plays in concept development, see, Kevin M. Woods and Thomas C. Greenwood, "Multi-domain Battle: Time for a Campaign of Joint Experimentation," *Joint Forces Quarterly*, (Washington, DC: January 2018).

Col Thomas C. Greenwood

FastFAC

Fred,

Congratulations on your fine article published in the *Marine Corps Gazette*. Your writing provided good mix of history and doctrine whilst contextualizing my limited experience as an airborne forward air controller in the 1970s with VMO-1. While the OV-10 was still too fast for controlling close air support, it was a whole lot more fun to work from than the T-A4! A factor in the use of multi-engine or high performance aircraft was survivability over the denied areas of Southeast Asia (Cambodia, Laos, North Vietnam).

These issues were even relevant in the war stories my father told me. During the Central Solomons campaign in 1943, the light Grasshopper and Bird Dogs aircraft were being shot down by small arms fire while spotting for artillery fire; as a result, the more robust TBF torpedo-bomber was called into service. It could take a hit!

Once again, congratulations on your great coverage.

Regards,

**Chuck Melson, Chief Historian (Ret),
Marine Corps University**

Join the debate. Post your opinions on our discussion board at www.mca-marines.org/gazette.



28 November 2018

To my fellow *Gazette* Readers,

In March of last year, U.S. Marine Corps Forces Special Operations Command (MARSOC) published MARSOF 2030; our vision for the future. This document was our deliberate effort to examine what will be required of our personnel and our collective formations if they are to be successful in the competition and conflict of 2030. This publication was the culmination of a nearly two year effort examining the future operating environment, our organizational culture and characteristics, and a determination as to MARSOC's present (and future) required capabilities. This rigorous examination and associated war gaming efforts produced four recurring themes which the team developed into four distinct, yet interrelated, Innovation Pathways that support the overall vision. The four pathways are 'the Cognitive Raider,' 'MARSOF as a Connector,' 'Combined Arms for the Connected Arena,' and 'Enterprise-level Agility.'

Given our focus on the importance of the individual over hardware, it should come as no surprise that the Cognitive Raider is the centerpiece of our effort. It is the one that makes the other three pathways fully viable. For MARSOC, the Cognitive Raider is nothing short of a full re-examination of how we select, train, and educate our Raiders. In addition, it also extends into the mix of technologies with which we will enable our Raiders. The aim is to provide a competitive advantage that will allow MARSOF to out-cycle their adversaries, not only in terms of lethality, but within the 'Infosphere' as well.

Where the Cognitive Raider focuses on the individual, Enterprise-level Agility represents the other end of the spectrum and is MARSOC's bid for success as an organization. Enterprise-level Agility turns MARSOC's small size into a source of strength, one that provides SOCOM, in support of the Geographic Combatant Commands (GCC), increased operational flexibility by leveraging all of the Command's capabilities in support of ongoing operations.

The two supporting concepts of Combined Arms for the Connected Arena and MARSOF as a Connector seek to expand how we understand, integrate, and then leverage emerging capabilities with or independently of more traditional supporting arms in the case of the first concept. The second builds upon organizational and personal relationships as the key component, bringing together and leveraging other elements of national power, in conjunction with key partners, against the challenge at hand. Much like the direction we are headed with the Cognitive Raider, these supporting efforts are expected to increase MARSOC's proximity to the information and cyber mission space.

Based on our exploration, we believe that these changes will require modifications to our organizational structure, force disposition, and method of employment. MARSOF 2030 should push us outside of our comfort zone and past existing boundaries, especially when it comes to our approach to recruiting, selecting, educating, training, and retaining our Raiders.

We appreciate the *Gazette* leadership allowing us to share our vision, and invite your thoughts and input. Semper Fidelis and Spiritus Invictus!

D. D. Yoo
Major General, U.S. Marine Corps
Commander, U.S. Marine Corps Forces
Special Operations Command

MARSOC 2030

A strategic vision for the future

by Staff, Marine Corps Forces, Special Operations Command

Imperative to Change

“Adapt or perish, now as ever, is nature’s inexorable imperative.”
—H. G. Wells

The success Raiders enjoy today is the result of groundbreaking work by those who created MARSOC and the hard-won successes of the organization’s first decade. During this same period, adversaries and competitors have made investments and advances to close the gap with the United States and position themselves to blunt or avoid U.S. strengths. The indicators and warnings that we face more capable opponents are visible now. We must adapt to meet the associated challenges to come.

The evolution of warfare is a long history of technological, social, economic, and political change converging to form the character of conflict. Successful militaries recognize and embrace these changes, while those that do not risk failure. The future operating environment will challenge MARSOC in the same way that warfare has challenged militaries throughout history. However, the current pace of change is accelerating exponentially. The interplay of technological innovation, global demographic shifts, challenges to the post WWII world order, and the rise of both state and non-state powers portend a future operating environment that is increasingly uncertain, volatile, and complex. The degree to which MARSOC will contribute to our nation’s future defense will depend on its ability to recognize and adapt to the challenges of the future operating environment.



MARSOC logo.

A Legacy of Innovation

Our Marine heritage is one of embracing concepts to advance the art of warfighting. The Culebra Island amphibious operations experiments which forged the concepts critical to successful landings in WW II and our pioneering embrace of the experimental helicopter in the Korean War are but two examples. The determination to make long range, tiltrotor aviation a reality is another case that illustrates the Marine tradition of embracing concepts early and using them to create an operational advantage.

At the same time, special operations forces also have a well-established history of innovation. The very reason for SOF’s existence has been to provide a capability not resident in the conventional forces. Generally, tactics and equipment used successfully by SOF transition to the broader force, ultimately making the whole of the force more capable. Looking back at our own historical experience as Marines, we see examples of SOF ‘innovation’ migrating to conventional forces at least as far back as the Interwar period. Our own Evan Carlson developed a ‘fire

team’ concept based on his experience in China in the 1930s that he applied to the Raider battalions and the Marine Corps later adopted for its infantry units in World War II. Concurrently, the entrepreneurial approach of the OSS laid the groundwork for a wide variety of contemporary special operations and activities. Even now, contemporary advances which have made SOF so effective, networked, and lethal are migrating to conventional forces.

This legacy of innovation not only serves us well, it also backstops an imperative to adapt and evolve at a time when our enemies are rapidly closing the technological gaps we have enjoyed over most of our professional lives. To maintain the status quo in the changing environment is to cede advantage to a wide group of threats who are actively seeking (and exploiting) gaps and seams in U.S. military capabilities.

Our effort to prepare for an uncertain future arrives, appropriately, at the point of MARSOC’s maturation. After more than a decade of growth, development, and experience, our institutional maturity allows for the opportunity to extend our view beyond near term challenges. SOF’s achievements, and its ascendancy as a policy tool for a wide range of national security problems, provides further opportunity to build toward tomorrow’s challenges. This will require a sustained effort that continually looks ahead, assesses the challenges of the future environment, and adapts capability to meet those challenges. We must approach change with the flexibility to expand with defense funding coupled with the resourcefulness to achieve change in a competitive fiscal environment.

This window comes at a time when the Command is itself accelerating. MARSOC has now reached a level of

This maturation allows the Command to deepen our understanding and application of core competencies, while adjusting and even expanding our scope to include a broader range of threats.

We will use this advantage to incorporate the lessons of our first decade while aggressively preparing for the next.

maturity where our regimental commanders have led MSOCs, Raider Battalions are led by former team commanders, and many primary staff members have served previously at various levels within the organization.

The Future Operating Environment

Preparing the force for service in a volatile and uncertain future requires a degree of prediction about the drivers of the environment in which our Raiders will serve. Predictions are inherently risky and imprecise. We fully acknowledge the inexact nature of future projection. Nonetheless, some prediction is required to plan. Our view of the future is grounded in a wide survey of the thinking across the Joint force, the intelligence community, our allies, academia, and nongovernmental business and technology sectors. The prevalence of certain key trends is undeniable, though the exact timing and impact of specific trends within the broader sweep of time may be debatable. Barring a “Black Swan” event, we are confident that our vision accommodates key features and the general context of the future operating environment.

The world is changing rapidly. Failing to adapt to those changes is to condemn our forces to unacceptable risk, as our opponents innovate and new threats surface to challenge the nation. Across a wide range of megatrends, forecasts, and developing technologies, our wargaming and analysis consistently pointed to several key trends. These, in turn, drove conditions in the future operational environment that we can view

as either threats or opportunities. This vision outlines the concepts that we will harness to exploit selected opportunities and mitigate threats of concern.

Among the large set of trends that will drive future conflicts, the convergence of two broad themes will likely shape the specific problems against which the United States will employ SOF. These two factors are Regional Competition and Instability.

Regional Competition	Instability
Shifting Strategic Relationships	Connected Consequences of Fragile & Failing States
Powers Pursuing Regional Primacy	Proliferated Information Technologies
Regional Powers Attain Global Reach	Intensifying Consequences of Population Growth & Migration
Significance of Systems & Systems Integration	Alternative Hubs of Authority
Emerging Measure/Countermeasure	Rise of Privatized Violence

Regional competition describes a condition brought about by a number of trends already visible today. Those trends include, but are not limited to, competition as a result of shifting strategic relationships and changes in the relative power of certain countries. In particular, the economic and military rise of China and India, increasing rivalries in the Middle East, and Russia’s struggle to remain a world power will fuel competition in an increasingly connected global landscape. In some cases, regional powers will attain global reach by acquiring nuclear or advanced technological armaments; a fact which will challenge U.S. freedom of action and

perhaps diminish its influence with less committed partners. The foundation of current U.S. military strength may be difficult to bring to bear in scenarios where a regional adversary possesses a local advantage that precludes the unilateral application of airpower, ISR, or space-based communications/guidance. In certain key capability areas, competitors may effectively close technological gaps with the U.S. military or use asymmetric strategies to blunt our strengths. This military advance will likely coincide with economic growth that fuels global expansion into areas of traditional U.S. influence and gives rise to sharp, multi-faceted competition short of open military conflict. Regional powers are likely to attempt to challenge the U.S. role in areas they increasingly view as their own. The U.S. response to these revisionist bids will, in many cases, be the employment of SOF to define the problem, achieve ends, and demonstrate resolve without unnecessarily escalating them into open conflict. In either of

these scenarios, SOF will buy decision space for senior leaders to observe and orient on the problem.

Meanwhile, more of the globe will find the conditions of daily life increasingly unstable. Explosive population growth in areas of traditionally poor governance and limited resources will fuel instability across entire regions. This will, in turn, increase the emerging patterns of migration, destabilizing areas perhaps quite removed from the initial crisis source. Much of the migration will be to urban areas and ever growing megacities. These key hubs will become dense, disordered ‘knots’ of competing power structures. They will comprise

both licit and illicit activity, exert outsized influence on international affairs, and involve overlapping and competing interests for the United States and an array of global and regional actors.

The war of ideas will not be the exclusive domain of nation states. Individuals and groups will rise to prominence to challenge traditional power structures and norms. Both multinational corporations and powerful transportation hubs that straddle air, land, and water routes are likely to seek larger influence as issues bring national interest into friction with their own. As resource disparities increase and personal outlooks for success dim, an increased population of disaffected or marginalized youth, ever more connected by the internet and social media, will be increasingly susceptible to virtual and non-state groups promoting radical or destabilizing ideologies.

MARSOF* will execute missions set against the context of regional competition and instability. As these two themes collide, however, the complexity of the operating environment will increase dramatically.

This environment will challenge U.S. policy during the best of times, but with the addition of a regional crisis, a natural disaster, a pandemic, or internal conflict the problem multiplies dramatically. Such circumstances challenge the U.S. government's ability to respond

*MARSOF: Marine Special Operations Forces refers generically to the operational force.

Elements of the Future Operating Environment

Erosion of US military advantage

- Peers/near peers close technological gaps and find asymmetric offsets; we often fail to understand these asymmetries
- The military instrument alone is insufficient to solve the complex problems for which it will be used
- Signature management severely limits US freedom of action and maneuver

Multi-polar arenas featuring sharp competition across DIME

- Other instruments of power, 'contactless action' (Gerasimov model) are employed by adversaries to achieve strategic objectives
- Rising powers/non-state actors take advantage of the way in which the US conceptualizes war; adversaries operate below US 'threshold' for force

Attractiveness of small footprint solutions

- Mitigating risk while exploiting technological advantages of remote and reach-back capabilities

Dramatic expansion of global connectedness and interactions

- Trend toward transregional and multi-domain actions increases and accelerates

'Tangle' of capabilities spread across agencies/levels limiting responsiveness and efficacy

- Finding an appropriate and durable solution challenges traditional US 'means' and modes of organization

Attractiveness of Hybrid and Information Warfare as a tool for adversaries

- At relatively low cost of entry, the 'Gray Zone' offers our adversaries a means to mitigate traditional US strengths, precisely because it operates below the norms of international response

Increased complexity and uncertainty in the operating environment

- Speed of change and action only increases the imperative to understand complex environments and inform decisions

and make the role of SOF simultaneously more urgent and more difficult.

In such an operational context special operations forces, with continued emphasis on a limited footprint, will find themselves a key participant to any U.S. response. To correctly understand the problem and act meaningfully without unwittingly escalating tensions will entail accepting a certain level of po-

litical risk; a fact that lends weight to the application of SOF in such circumstances. Concurrently, the complexity of a particular situation will likely require a wide range of interagency and allied partners, working together, to understand and solve the underlying problems.

The reality of contemporary and future challenges to the international

system is such that the root causes of the problem are almost invariably non-military—as are the most effective solutions. That said, the military instrument is frequently seen as the most capable tool of national power. Often viewed as the force of choice, SOF is ideally poised to enable the application of other instruments of national power. As conflict moves further into the information and cyber spaces, MARSOF will find themselves leveraging theater, interagency, or national level tools to achieve desired outcomes.

Guiding Concepts

Forces that cannot thrive in chaotic, complex operating environments will find the future to be an unforgiving place. To succeed, organizations will be required to change their modes of thinking about problems, how they see themselves, and their willingness to pursue adaptations.

There are opportunities on the horizon for our organization that are natural extensions of present day strengths. Likewise, with thoughtful, focused effort and a willingness to embrace change, we can develop in ways that mitigate vulnerabilities and threats we expect to face.

The results of our futures analysis provide broad implications for the force as well as options from which MARSOC can shape its future capability to meet the challenges of the future operating environment. Throughout the wargames series, four discrete concepts or ‘themes’ consistently emerged. Each theme describes a distinct aspect of a vision for MARSOC, but at the same time builds upon the others such that the four are interconnected and mutually supporting. Together they provide a strong conceptual basis for a future MARSOC that evolves with the operating environment to remain a capable

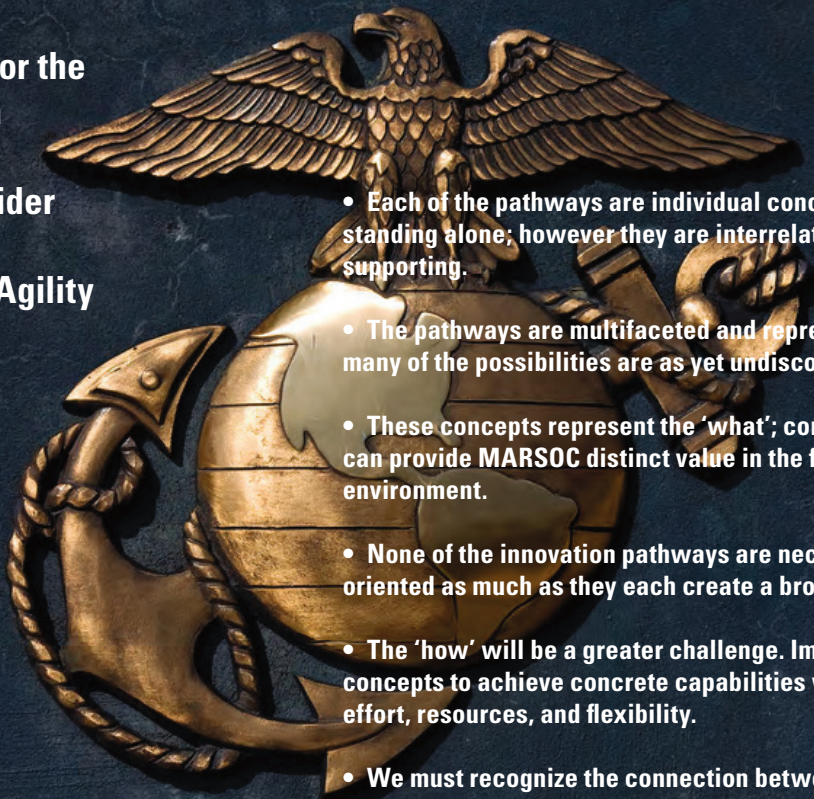
and credible force across warfighting and Title 10 functions. Collectively, these four themes are the core pathways of innovation.

MARSOF As A Connector

Bringing greater and more diverse capabilities to bear on problems

The lines between war and peace will become ever more stretched and blurred as opponents seek to exploit U.S. vulnerabilities and reorder the world to their advantage. SOF will continue to be the premier choice for policy makers seeking to mitigate political risk and avoid direct confrontation while providing a scalable, effective response across a range of problem sets.

To compete in the future operating environment, Raider formations will need to leverage the increasing reach of national and theater level capabilities, particularly those within the in-



MARSOF as a Connector

Combined Arms for the Connected Arena

The Cognitive Raider

Enterprise Level Agility

- Each of the pathways are individual concepts capable of standing alone; however they are interrelated and mutually supporting.
- The pathways are multifaceted and represent a range of ideas; many of the possibilities are as yet undiscovered.
- These concepts represent the ‘what’; conceptual visions which can provide MARSOC distinct value in the future operating environment.
- None of the innovation pathways are necessarily ‘endstate’ oriented as much as they each create a broad field of opportunity.
- The ‘how’ will be a greater challenge. Implementing these concepts to achieve concrete capabilities will require time, effort, resources, and flexibility.
- We must recognize the connection between these concepts and programmatic. This will require leveraging both USMC and USSOCOM capability development mechanisms.



SOF will be viewed as the tool to organize/coalesce whole of government approaches to difficult, complex problems. (Photo provided by MARSOC.)

formation space. MARSOC's facility in building cohesive, task organized teams provides us the opportunity to develop into the ideal integrator and synchronizer of U.S. global capabilities with USSOF and partner nation actions. This concept aims to extend the idea of integration beyond traditional battlefield functions like ISR, Fires, Information Operations, and Electronic Warfare. MARSOC seeks to leverage its command and control architecture to provide a foundation from which U.S. and coalition actors and capabilities can be brought to bear on problems whose solutions require the synergy of military and non-military instruments.

As competitors and adversaries refine approaches within what we today call 'Hybrid Warfare', the challenges will routinely defy strictly military responses while requiring the expertise of players from across the government. Nonetheless, the nation will continue to gravitate to the Department of Defense. Within the military, SOF will be viewed as the tool to organize/coalesce whole of government approaches to difficult, complex problems. MARSOC's strength in task organizing and integrating across functional capabilities will provide a natural foundation on which to integrate and enhance theater, national, and interagency capabilities at every

echelon. Our emphasis on relationships and mission command naturally positions our forces to be the connector, synchronizer, enabler, and integrator, particularly in cases where interagency or foreign partners possess limited command and control capability. Facility in matching and coordinating military and non-military instruments against multi-faceted, complex problems will provide MARSOC with a truly unique capability to produce valuable operational and strategic level effects in areas that currently stymie DoD.

Integrating tactical, theater, and national capabilities with a relatively small 'boots on the ground' presence, as well as providing a venue for coordinating interagency actions, holds the potential to provide the nation with a unique set of capabilities. This concept comes with significant challenges. It will require an ambitious effort to change current authorities and permissions. It will also require a long term effort to build the interagency relationships, understanding, and trust that must necessarily underpin such a concept. Lastly, it will require investments in select regions to cultivate the required partner relationships above the tactical level.

Although this concept has inherent challenges, it builds on MARSOC's

existing strength in command and control. Raider formations can become preferred partners; the 'glue' that binds wide ranging capabilities and disparate entities to achieve meaningful effects.

Combined Arms for the Connected Arena

Intertwining Information, Intelligence, and Cyber

Populations across the globe are increasingly connected in ways which have more and more meaning with each passing year. These connections will shape features of everyday life in both positive and disruptive ways; bringing rapid development and social change to some regions while bringing turmoil and upheaval to others. To operate in this connected landscape, our Raiders must discard old thinking that compartmentalizes information and cyber as distant supporting efforts to physical operations. A wide range of state, group, and individual actors will be engaged in a continuous tug of war in the information space, while others actively monitor the activity in this domain to inform operations and activities.

The significance of the information environment, to include its physical, virtual, and informational components, is an enduring feature of conflict. Ultimately, the consequences of the information environment relate to how it affects the cognition (perceptions, beliefs, decisions, etc.) of its relevant actors. Our units must be able to thoughtfully combine intelligence, information, and cyber operations to affect opponent decision making, influence diverse audiences, and counter false narratives. Furthermore, we must be able to synchronize operations, activities, and actions in the information environment with those across operational domains and, when necessary, fuse cognitive and lethal effects. Given current trends, effects in the information environment will become increasingly decisive across the conflict continuum.

In the ever more contested and disordered world of tomorrow, a key SOF requirement will be to both 'sense' and 'make sense of' what is happening in diverse and multi-dimensional environ-

ments. Building understanding of these environments across interconnected domains will increase MARSOC's requirements for collection and analysis. Tactical leaders at all levels must better understand intelligence capabilities and applications to achieve a higher level of operations-intelligence integration. This integration will capitalize upon the relationship between special operations and intelligence activities, while the lines between the two increasingly blur.

In this arena of competition that spans the virtual and physical spheres, Raider formations will be the ideal choice to map and understand the 'system' as well as the myriad networks in play. The future operating environment will almost certainly comprise an overlapping array of licit and illicit networks, simultaneous areas of cooperation and conflict among regional actors, and a clash of old and new paradigms. The sharpening tension between traditional groups and individual empowerment will play out in both the digital and physical domains. Understanding this new landscape will be critically important to leadership at every level. To compete within that space MARSOC must have the necessary tools, training, and expertise. The ability to deliberately counter threat narratives and proactively influence diverse audi-

ences will be a critical capability for our units.

Building awareness and acting across the information environment requires deliberate effort that will challenge current roles, missions, and authorities. Where our Raiders identify operational requirements that we lack the ability to fulfill, we must have the means to connect to responsive capabilities from the Joint force or interagency. Raider formations will increasingly operate in the information environment and integrate those operations across physical domains. This demands our units view information and cyber tools as foundational, not just complementary, and develop facility in combining them as naturally as we combine direct and indirect fires today. To achieve this we must change the manning, training, and equipping of our force. The creation of an enhanced combat development capability is one of the more important aspects of achieving MARSOC's goals for the future. Capabilities held at higher levels today may be accessed (with effort) in the near term, routinely incorporated into operations in the mid-term, and perhaps become habitually associated or organic over the long term.

As larger swaths of the world connect to the digital sphere and 'the internet of things' becomes increasingly pervasive,

Raider formations must glean meaning from an exponentially growing set of inputs and ambient 'noise'. Forward deployed Raiders will need the means to reach back to larger processing and analytic resources in order to inform decisions and shape operations. Fully realized intelligence tools will connect tactical, theater, and national collections and databases to enable operational understanding across the human, information, and cyber domains. This understanding will provide the analytical basis for adaptive approaches and actions to achieve precise effects across a range of environments and problem sets.

"This demands our units view the tools across information and cyber domains as foundational, not just complementary, and develop facility in combining them as naturally as we combine direct and indirect fires today."



Forward deployed Raiders will need the means to reach back to larger processing and analytic resources. (Photo provided by MARSOC.)

The Cognitive Raider

Infer, Inform, Influence & Fight; Enhancing Skills for 2030

Sharp regional competition by adversaries with the ability to mitigate or deny traditional U.S. military strengths will increasingly drive missions demanding a high degree of skill and nuance to discern the sources of the problem and develop meaningful solutions. These problems will strain current conceptions of conflict and joint phasing, thus requiring SOF capabilities that can effectively address them while minimizing open hostilities.

The Raiders we send into such environments must be able to understand

their surroundings and then adapt their approaches across an expanded range of solutions. While tough, close-in, violent actions will remain a feature of future warfare, MARSOF must increasingly integrate tactical capabilities and partnered operations with evolving national, theater, and interagency capabilities across all operational domains, to include those of information and cyber.

Creating operational and strategic effects in the future operating environment will require a SOF operator with an equal amount of brain to match brawn; foresight in addition to fortitude. Raiders must be able to seamlessly integrate a wide range of complex tasks; influencing allies and partners; developing an understanding of emerging problems; informing decision makers; applying national, theater, and interagency capabilities to problems; and fighting as adeptly in the information space as the physical. This set of competencies defines the 'Cognitive Raider'

and is necessary to achieve 'MARSOF as a Connector' and 'Combined Arms for the Connected Arena'.

Built upon a solid foundation of continued tactical excellence, the 2030 Raider must be as comfortable working as a part of interagency or multinational effort as serving inside of a MARSOF formation. This concept will place increased emphasis on the qualities of intellect, judgment, creativity, and teamwork while maintaining attributes like determination and endurance that have been critical to our success to date. The Cognitive Raider must have the curiosity and intellect to see the whole picture and infer underlying problems, the skill to convey those layers to leaders, the creativity to recommend effective multi-domain action, and the drive to see those actions through to completion.

Future missions will place our Raiders in increasingly ambiguous and complex environments. There will be

a requirement to understand the drivers of conflict, the nuanced interests of all actors and groups, and the cascading ramifications of actions. The average individual's access to information and ability to wield power previously reserved for nation states advances the trend of individual empowerment. Coupled with the increasing influence of non-state and multinational groups, such trends challenge the traditional top-down approach of states and further complicate problem resolution. These trends will heighten the need for individuals who can parse the disparate elements of a problem set and deliver meaningful action.

The 'Cognitive Raider' concept applies to both the individual Raider and the collective cognitive capability of the team. Furthermore, the term refers to the capabilities of every Raider in MARSOC. Future missions will require MARSOC to further capitalize on its collective capability, driving ever closer integration of specialized skills and blurring the distinction between operator and specialist. To implement this concept, MARSOC must be willing to reconsider and challenge existing force composition and structure paradigms. Some specialties may require experience and skills not resident in current billets or ranks. We must be willing to reexamine the full range of 'types and stripes' required across specialties and the degree of SOF specialization within each.

Producing these Raiders will require adjustments in how we recruit, screen, assess, select, and then train our personnel. We must ask ourselves hard questions about each of these areas and be willing to challenge the status quo wherever a policy or process is poorly aligned with the future requirement. The attainment of this goal will require us to reassess the individual attributes we select for and re-evaluate training and education roadmaps to ensure we possess the right mix of Raiders with the right capabilities. To retain and best employ these cognitive Raiders will require thoughtful adaptations to structure, promotion, and career path models.

Though not without challenges, these changes will be necessary to



Marine Raider badge. (Photo provided by MARSOC.)

generate Raiders capable of thriving in the future operating environment. This challenging mix of understanding, influence, and action will come to define MARSOF, and the determination to succeed in high stakes challenges leveraging these attributes will be the embodiment of Spiritus Invictus. These Marines—savvy and adaptable by virtue of their personal attributes, focused training, and additional education—underpin the other concepts which will drive MARSOC into the future.

MARSOC's small size becomes a significant strength; one that can provide both organizational and operational agility to the USSOCOM Commander.

The results of our wargames are in line with most of the future operating environment assessments that forecast increasing uncertainty, volatility, and complexity. Success will require SOF that is adaptable to changing environments and versatile across a diverse range of challenges. An institutionally agile MARSOC provides USSOCOM

emerging requirements, and adapt capabilities across DOTMLPF to achieve a capability that currently resides in only one area of the SOF Enterprise. Unity of purpose and effort, as well as a shared identity as Marine Raiders, provide MARSOC with the institutional resiliency to pursue new constructs and approaches that optimize capability, flexibility, versatility, and adaptability. This new level of agility and adaptability also requires willingness and the processes to critically assess performance, internally identify flaws, and make the necessary corrections. MARSOC may provide singular value to USSOCOM by actively striving to be its most agile, adaptable, and responsive component.



MARSOC's small size becomes a significant strength. (Photo provided by MARSOC.)

Enterprise Level Agility

MARSOC possesses the advantage of being a relatively small force with its own component headquarters. Our cohesive, focused force confers an organizational agility that allows the Command to rapidly reorient the organization to confront new challenges as they emerge. In other words, the unity of purpose and organizational dexterity over which MARSOC presides provides SOCOM with an agile, adaptable force to meet unexpected or rapidly changing requirements. Seen from the bottom up, forward deployed Raider echelons are able to reach directly back into a responsive component command headquarters to assist in innovating solutions for operational problems. In this context,

with a component that can rapidly orient, focus, or retool capabilities to meet emerging requirements or work a discrete trans-regional problem set with full spectrum SOF from onset through resolution. This tactical adaptability and operational agility will enable MARSOC to contribute more meaningfully within USSOCOM and be a bid for strategic success against rapidly emerging and changing threats.

In realizing this vision, MARSOC will remain true to its Marine Corps values and warrior ethos, while simultaneously challenging its own organizational culture and service paradigms. Mere declarations of agility will be insufficient to achieve this vision, MARSOC will have to examine processes, assess

“In this context, MARSOC's small size becomes a significant strength; one that can provide both organizational and operational agility to the USSOCOM Commander.”

Operational Vignettes

Imagining the concepts in action

West Africa, 2028. Marine SOF is deployed as a part of U.S. support to a struggling host government. The host country is facing increasing unrest as a result of massive migrations to its urban centers and the resultant strain on services. The region has seen uneven economic growth between the Christian tribes that control much of the economy and government and the swelling numbers of migrant, predominantly non-Christian peoples that have moved to the urban areas seeking stability. As the population grew, these cities became the setting for the increased growth of radical groups and large semi-licit criminal enterprises that have tangled interests with a variety of malign networks.

Raider Team House, near the partner military's elite commando base.

"Top, Check this out." An analysis had just come back from stateside that used data analytics to cross reference digital interactions across five popular local social applications and cellular calls with human intelligence the team had gathered. The team had taken the linkages the analysis suggested and crossreferenced the names with the FBI and DEA reps also working out of the American embassy. Master Sergeant Thomason looked over the results. He had sensed that conditions on the ground inside of the country's sprawling capital city were worsening and this paper confirmed that hunch.

Thomason thought about the results and how best to share the relevant data with his interagency partners; he needed to notify them as soon as possible, but the message had to be thoughtfully presented to discourage a potential overreaction. The partnered host nation military leaders also needed access to this information as it will potentially alter some planned combined operations.

The Master Sergeant thought about the many players with whom the team interacted across the unofficial interagency task force and was grateful for the effort that the unit had taken to build trust and shared purpose across the U.S. contingent. He had worked hard to instill in the

team that their success was going to be measured by the strength of the connections they could make across the U.S. stakeholders and the host government.

Thomason thought it likely that he would have to speak desk side with both the Chief of Station and the Chief of Mission, as well as senior partner nation military leaders in short order. He was grateful for his experience on MAR-SOC's first interagency internship program a few years back, not to mention lessons he had learned during several earlier West African deployments. The interagency program, in particular, had

given him much greater confidence in these settings; it helped him see things from the perspective of other agencies, navigate their processes, appreciate their culture, and, above all, effectively communicate to their decision makers. He thought about where he and the team would be now had the 0372 Roadmap not placed such emphasis on SOF education and interagency collaboration.

MSOC Operations Center, Triborder area 1,000 miles North

Major Carlson looked at the graphic his intelligence team had prepared of the developing situation. The graphic encompassed MSgt Thomason's location near the capital, the adjacent country, and the area in which the company's

criminal, and special interests that was impossibly difficult to sort through. The company had tools and predictive programs to help make sense of this unfamiliar landscape, but the situation was both noisy and fluid with the sheer millions of people involved and the monumental scope of the problems. The partner government would have struggled to address a situation half as complex and was simply overwhelmed by the problem confronting it. The massive migrations to the overburdened urban centers had shifted allegiances and old alliances amongst religious, ethnic, and tribal groups while increased connection to the internet had raised expectations and fostered new grievances while reinvigorating old ones. In this case there were clear indications that a new, if poorly defined, threat group might be forming. It was unclear what set of grievances or stressors might be incentivizing malign actions, but there were clear signals that actors from a variety of previously unrelated threat groups were cooperating and swaths of the populace who had been largely pro-government were increasingly receptive to what appeared to be organized anti-government messages.

Carlson followed his initial actions with detailed requests for intelligence support from both theater and national assets. He had been marginally aware of these capabilities as a young team commander, but the command had pushed aggressively to learn about and integrate them where applicable while he was still a company XO. The dividends were immediate. Over time, processes were gradually streamlined and authorities granted that helped Raiders access powerful cyber tools. They used these to track activities, as well as reach-back analytical resources, to uncover patterns and overlaps between social, financial, and political opposition activity.

The MSOC staff was now able to integrate these tools with enhanced systems and additional capabilities



Carlson had made several West African deployments. (Image provided by MAR-SOC.)

second team was operating. The company had quickly pushed information up to the Theater Special Operations Command and analysts at the company, theater, and national levels were actively collaborating in real time. Carlson's staff then sent portions of the releasable information to allied SOF in a nearby area, who responded with bits of their own intelligence which added to the overall picture.

The MSOC had begun to get a sense of the developing problem in the region. There was a mosaic of overlapping ethnic, religious, political, commercial,

the command had developed. Carlson now considered the powerful analytical systems that linked his company's inputs with an array of U.S., allied, and open source information as an integral 'member' of the team. The staff might jokingly call the Artificial Intelligence system 'C3PO', but no one could deny that its predictions and analysis had consistently proved correct and led them to a better understanding of an otherwise impenetrable problem. In fact, it was 'C3PO' that sensed a shift in social media interactions in a certain slum and noticed communications signaling a heightened sense of tension. The AI had correlated this with patterns in a threat group's communications which led to the prediction that a cell had moved into the slum and was planning an attack. Carlson's Raiders had been able to cue their partnered commandos and accompany them to disrupt the attack and collapse what had been a particularly effective terror cell.

There was concern that the urban sprawl and slums surrounding and crisscrossing the city offered an environment ripe for radicalization by terror groups. Raiders had effectively contained and reduced several prominent terror groups, perhaps so much so that there was a change happening in real time that they were beginning to see. "XO, prep the teams. We need to sketch out some options to get ahead of this problem," the Major said as he picked up the phone to call his boss.

African commando base, three months later

MSgt Thomason shuffled away from the helicopter, turning his head to avoid sand kicked up by the rotor wash. After days of debate and intense planning he and several of his Raiders had accompanied their partner commandos on an operation that had successfully detained a key threat facilitator. The partner unit had performed well, and the operation had gone smoothly despite its location deep within an incredibly dense, chaotic slum teeming with competing factions and leaning anti-government. As the commandos flew into the city, Thomason's Raiders had selectively disrupted communications in and around the target area. This had forced residents

to shift to a temporary government broadcast WiFi bubble that allowed the government to pass key information and counter threat narratives that had begun to gain traction. The Raiders had used a newly developed 'friend or foe' scan which interrogated nearby digital devices and predicted hostile, unknown, or friendly status based upon online activity to tailor their interactions with members of the surrounding crowds during the operation.

As the team flew away from the target site and normal service resumed, a host of tools at the team, company, and theater level began monitoring the cyber realm for the post mission communications in the area. The sheer volume of digital traffic in the dense urban sprawl required reach back in varying degrees to tools and devices at various levels of command. These conversations and interactions would reveal much about the local and international network that was metastasizing into a real threat group.

"You good to go?" Thomason asked his ops chief. He was leading several Raiders who were assisting the commandos in exploiting the detainee's electronic devices and questioning the terrorist facilitator. Thomason accompanied the commando leadership to meet with some interagency partners and host government agency leaders to work out the combined actions the government would take next.

The Marines met with their partners for the rest of the day, balancing the need to act decisively against the emerging threat without giving the group undue credibility and avoiding any unforced errors which would 'pour gas' on the flames it was attempting to fan. American military and partner agency reps were keen to address the many non-military aspects of the problem and promote positive efforts and local voices. Thomason took notes and found several of these lines of effort in which his Raiders could certainly assist. There was clearly a role for his men to support and accompany the commandos on missions against key targets, but he sensed that his team's efforts in the information space might be more important to the long term outcome and

that their intelligence tools would be absolutely vital in focusing those actions.

Vignette 2

Imagining the concepts in action **Middle East, 2030. Special Operations Task Force (SOTF) Operations Center, Semi-Autonomous Region of Argo (SARA) Defense Forces Headquarters Facility**

The Ops Center was a flurry of activity as usual. This was the second rotation of U.S. forces into the area since the United States had declared support for the semiautonomous region in the Middle East. There had been a number of unexpected events that converged and crystallized, leading to a sudden outpouring for independence and the cautious support of the United States President. However, the country of Zed which is the historical center of power in the region and a consistent spoiler towards American interests, viewed the Semi-Autonomous Region of Argo (SARA) as a threat. The administration had decided to keep the troop footprint as small as possible, providing behind the scenes support to the Saran government's efforts to build credible institutions and protect itself from outside interference. USSOCOM, committed globally to several pressing challenges, detailed MARSOC to own the Saran problem set and maintain the rotation of special operations forces there.

LtCol 'Stretch' Bailey, Commander of the Special Operations Task Force, had prepared his forces with a focused, tailored workup that was fortunately able to exercise new material capabilities identified and requested by the initial SOTF in addition to some unique authorities the command had arranged through the Theater Commander and SOCOM. Bailey's SOTF was not only the hub for all U.S. support to the Saran defense forces but also for the interagency support to Saran counterintelligence. There was an intentionally small State Department contingent in the capitol area with which the SOTF maintained an excellent relationship and integrated its efforts.

Bailey had just been briefed by the OIC of the SOTF's Cyber detachment

that someone (likely Zed sponsored) was attempting to tamper with the public webpage of a Saran public ministry. This had already happened six times in half as many days. On each occasion, the Raiders were the first to be aware of the intrusion and then reach out to the appropriate Saran agency to warn them and provide assistance. While these efforts hardly taxed the SOTF's capability, they constituted invaluable support to the fledgling Saran government that struggled daily to create an aura of competence and legitimacy. Moreover, these events validated the integration of the cyber detachment into the SOTF. With each passing day, Cyber was proving to be more and more valuable, especially with the uptick in the amount of threat activity occurring in the virtual realm.

Zed had incrementally escalated its campaign to sap the confidence of the local people in their new government through a combination of malign cyber activities, disinformation, and surrogate-supported international political roadblocks. It was an open secret that Zed was actively supporting and directing proxy militias that were operating in disputed zones along sections of what was a complicated tangle of overlaid borders.

There were essentially three boundaries in effect; an international one that the United States and area coalition governments recognized, another more expansive that the Saran government claimed, and a third claimed by the militias that encroached on the first and the second. This created a dilemma wherein Bailey's Raiders could accompany Saran troops within one swath of territory but had to stop short and revert to virtual advise and assist operations in areas that the United States deemed to be 'cross-border'. In addition to the confusing border situation, an increase in the number of militia men within these areas raised the frequency of border clashes and was leading to an overall increase in the level of violence. The militia's response was to acquire increasingly heavy weaponry and escalate each subsequent clash. Unfortunately, the Sarans had no air force of their own and a combination of U.S. policy and threat anti-aircraft and counter-UAS

capabilities severely limited any U.S. aircraft from flying in the border areas.

To offset the lack of traditional aviation and ISR, Bailey's SOTF had direct access to a set of orbit of low earth 'cube sat' satellites, launched 6 months earlier to provide the SOTF 24/7 multi-sensor coverage of the battlespace. The small satellites supported the SOTF with a dedicated array of signals, thermal, FMV, tracking, and MASINT technologies that provided both real time situational awareness, targeting data, and pattern analysis inputs. This small cube sat constellation complemented the SOTF's organic collection capabilities, together they provided Bailey with the certainty he needed to act with precision in this politically high risk environment. The sensors fed into the SOTF's 'Watson' computer that compared pattern of life and terrain recognition across months of data and quickly cued the analysts onto any anomaly. He was watching the live feed from one of the satellites now as a split team of his men accompanied a Saran patrol within the border area where the Watson had suggested an enemy militia was forming for a potential attack.

Team 2, accompanying Saran patrol near the disputed border. The two Raider trucks lurched over the rough ground, kicking up dust that a tailwind was blowing forward and partially obscuring the collection of Saran 4x4s and old U.S. Humvees the Marines were accompanying. In the lead Raider truck GySgt Ortiz video conferenced with the SOTF and downloaded threat positions, verified through multi-spectral signals collections, to his display tablet, which would simultaneously appear on the Saran Platoon leader's display.

The gunny ended the videoconference with the SOTF and opened a new window with the Saran platoon leader. The partner lieutenant had halted his four vehicles. He explained that there was a danger area ahead about which he was concerned and asked if Ortiz could launch a scout to look ahead. Each Raider vehicle was equipped with a complement of small short range drones that it could launch and recover on the move. The scout drones provided a downlink with both day

and night video fused with thermal imagery and carried a small payload to weaponize if need be. More importantly, these drone were able to mark targets via a stand-off laser and provide a lasting 'tag', accessible to tracking and targeting sensors.

The scouts buzzed forward and were quickly out of sight, flying over the broken terrain ahead. One of the drones was specifically interrogating any electronic signatures and signals emanating from the ground, gathering them and relaying them automatically through the host vehicle and back to the team and SOTF headquarters' Watson machines for analysis. Signals consistent with military equipment were detected and one of Ortiz' men directed the drones over to get a closer look. As the small swarm closed on the location they picked up images and signatures that provided the Gunny with a solid idea of the enemy force size and disposition that lay ahead. Gunny Ortiz tagged what appeared to be the threat's command vehicle and then relayed this information to a secure 'cloud' where it could be viewed by higher as well as his partner force.

The gunny and the Saran lieutenant came up with a quick scheme of maneuver and briefed their small force. Saran ROE required that the platoon attempt to turn the militia away peacefully. If events escalated, they could use the force necessary to protect themselves. The vehicles resumed their road march and were met shortly thereafter by sporadic small arms fire from a hillside. Ortiz directed the Raider trucks to offset from the Sarans and use the stabilized remote weapons stations on the vehicles as a base of fire. Cued by the still flying drone swarm, the Americans accurately suppressed the area while the partner force dismounted and closed on the position. Adding to the fires' accuracy were the thermal sensors that caught the enemy muzzle flashes. The Scout drones caught the bulk of the militia withdrawing from the fight, leaving their wounded in place, to mount their vehicles and fall back to a nearby village.

Special Operations Task Force (SOTF) Operations Center. "You

sure?” LtCol Bailey asked his intelligence officer, who nodded confidently in the affirmative. One of the digital signatures that the team was collecting from the skirmish had pinged with a national level agency as a high level Zed facilitator. This individual was responsible for a long list of attacks and was a known high value target. The Inter Agency reps in the SOTF headquarters were also positive after corroborating human, open source intelligence, and intercepts that also placed him in the area.

Bailey looked carefully at a 3-D interactive map and conferred with his Master Guns. “They’re trying to pull our guys cross border,” the Ops Chief suggested. Bailey agreed. The quick withdrawal was uncharacteristic of the militia as they still had numbers in their favor. Maybe the militia had just been caught in the middle of a movement and were now trying to protect this Zed agent, but the skirmish had occurred just on the international border, and the militia had now withdrawn to a village clearly in the cross border disputed zone. Chances were strong that the militia already had cameras and reporters on standby to record any U.S. ‘invasion’ as well as supporters prepared to relay those images far and wide.

Bailey quickly conferenced Ortiz, “We want this guy, but your team needs to hold tight; you need to stay well clear of the border. Do your partners have one of the R2D2s?” The ‘R2D2’ was the slang term given to the new remote advise and assist sensor suite that resembled the iconic movie character. The R2D2 allowed the Raiders to see 360 degrees from the partner vehicle and bring to bear a variety of sensors as well as the collaborative displays and communications tools.

“Affirm, boss. They also have a full container of the magic darts.” These darts were the containerized truck bed missiles that the partner force fired and which the Raiders would then assist with inflight terminal guidance. Once the Sarans fired the munition, using a simple touch screen interface on their map boards, Ortiz’ men could remotely ‘steer’ the weapons to their targets using the scouts’ tags, specific electronic signatures, or other inputs.

Just as the Zed proxies were jockeying to gain a ‘news hit’ from the engagement to support their position so were LtCol Bailey and his Saran counterparts. The SOTF stood ready to degrade social media broadcasts from anti-SARA regional influencers, while quickly disseminating images and themes to link the militia violence to this agent, and by extension, Zed. This was an area into which the SOTF had invested significant time and energy—a fact that the resulting battle drill more than demonstrated. The SOTF drew from a bevy of standing thematic objectives and media/messaging tools aligned to engender a sympathetic perception of events when an incident occurred. Experience proved that it was usually possible to quickly turn imagery (live or recorded) or official accounts into ‘payloads’ to be carried by the regional messaging fight.

Bailey could remember the Command’s earlier attempts to integrate intelligence and information operations more closely. At the time he mentally compartmented those items as occasional supporting efforts to missions, he chuckled to himself as he watched his HQ scrambling right now, urgently preparing to capitalize on the physical fight. Now, it was hard for him to imagine an operation in which intelligence, actions on the ground, and IO exploitation were not blurred into a single effort.

Implementation

The publication of this document constitutes guidance for where we are going in the future, with the expectation that it will take the best ideas from across the Command to determine how we will get there. These concepts are critical to our growth as we take the experiences of our first decade and chart a future through broad discussion and dedicated action.

We will explore these concepts with the full realization that the journey will prompt discoveries along the way as the environment changes and our initial efforts bear results. It is a long term portfolio of investments and each effort within the concepts may not yield benefits on the same timeline or to the same scale. However, even less successful approaches within the concepts will

inform developments to come and have a net positive effect on the overall course of the organization.

This vision of our future will guide the allocation of resources and component time and energy. Initiatives beyond current operational requirements that do not nest within the four corners of 2030 will require careful consideration so as not to diminish our ability to make progress toward the long term goals outlined here.

Our challenge will be to create a sustained effort that translates the concepts presented in this document into tangible, employable capabilities. As we add capabilities that are necessary for future conflict, we will also have to make hard decisions about just how much we can expect to do well and of which capabilities we should divest ourselves. Our decisions in this regard must be pragmatic and realistic. We can neither afford to become infatuated with fanciful ideas of future combat, nor nostalgically hold on to skills, equipment, and capabilities that have outlived their utility.

The deliberate implementation has several facets. First, with the publication of this strategic vision we will seek out broad perspectives throughout the Command, from the service, and from across the SOF enterprise. This broad and diverse range of opinions will strengthen our first steps.

Next, the staff will incorporate appropriate direction and guidance within the subsequent campaign plans, capabil-

“Gentlemen, we will chase perfection, and we will chase it relentlessly, knowing all the while we can never attain it. But along the way we shall catch excellence.”

—Vince Lombardi



Raider patch. (Image provided by MARSOC.)

ity roadmaps, and other directives to ensure all component efforts are properly aligned with the long term goals outlined here.

The Command will establish Innovation Pathways for each of the four concepts described here and begin to flesh out the ‘how’ by determining first steps and establishing near and mid-term goals. There may be overlapping solutions where the short term effort is simply a bridge to longer lead time approaches that require modifications to policy, new resourcing, or the development of capabilities.

We expect that the threat environment, policy backdrop, and available technologies will each continue to evolve and change as the efforts along the Innovation Pathways yield results. Therefore, our implementation must be flexible and adaptable to account for an evolving future. It is entirely possible that an opportunity will present itself that we have not foreseen; one that could offer MARSOC a future richer

than any we have conceived. Our willingness to bring in new ideas, concepts, technologies, and solutions while adapting the development of capabilities with the evolution of the operating environment is what will make our Innovation Pathways ‘innovative’. Change will be the norm and our internal assessments must link progress in our efforts with a continuous clear eyed view of the future operating environment.

The future is filled with uncertainty, fierce competition, and threats. There will be a stark requirement for SOF that are able to adapt to a wide array of operational environments and harness capabilities to fight across multiple domains. Our efforts now will ensure that MARSOC are the premier forces to meet tomorrow’s challenges.



MARSOF as a Connector

Combined Arms for the Connected Arena

The Cognitive Raider

Enterprise Level Agility

KEY TERMS:

MARSOC: U.S. Marine Corps Forces, Special Operations Command is the Marine Corps’ service component to U.S. Special Operations Command.

MARSOF: Marine Special Operations Forces refers generically to the operational force.

CSO: Critical Skill Operators are MARSOC’s Special Operations tacticians. A Marine is designated a CSO upon selection and graduation from the Individual Training Course.

SOCS: Special Operations Capability Specialists provide direct support to special operations missions. They are screened, selected, and assigned to provide unique MOS skills sets. SOCS occupational fields include intelligence, communications, explosive ordnance disposal, canine handlers, and joint terminal attack controllers.

CSS Marines: Combat Service Support Marines are assigned to support billets throughout MARSOC and provide Special Operations focused combat service support across the Command.

Raider: In 2014, MARSOC officially adopted the moniker of Marine Raider, carrying the legacy of the Marine Raider Battalions of WWII forward into modern day MARSOC. Raider refers to each of the Marines and Sailors who serves within MARSOC, whether they are a CSO, SOCS, CSS Marine, Corpsman, or member of a staff.

SOF in the Littoral Campaign

Fighting all phases, across all domains

by CDR James L Clark, USN

On 2 August 1990, under Saddam Hussein, Iraq invaded its neighbor Kuwait. An international coalition of forces, including the U.S. military, responded. U.S. Naval Special Warfare Command deployed a rapid response task group. This task group was comprised of three SEAL platoons and two high-speed boat detachments. The missions they carried out resulted in critical support and intelligence that enabled the success of the coalition counter-invasion, ultimately making it possible to liberate the country of Kuwait.

On 17 January 1991, Operation DESERT STORM officially began, and the special boat detachments and SEALs conducted actual reconnaissance of Kuwaiti beaches. Nightly, the high-speed boats departed with embarked SEALs and combat rubber raiding crafts (CRRCs) lashed to their bows to transit through mined waters approaching the coastline. They launched the SEALs in the CRRCs about 500 yards from the beach. The SEALs swam in and performed beach recon in oil slick, 50-degree water where they recorded mines, beach obstacles, and even Iraqi patrols, passing within 50 yards of them without being detected. Then the operators swam back to their raiding crafts to be recovered by the boats.

With the ground invasion approaching, NSW conceived a tactical deception mission, and upon receiving word to “proceed with mission,” SEALs loaded two CRRCs onto the high-speed boats to conduct the actual beach diversion. With critical timing, as the ground war of DESERT STORM was looming to kick off in just hours, the four high-speed boats departed on



The nature of SOF means that training and operations will be joint. (Photo by SrAm Ryan Conroy.)

>CDR Clark is an active duty Navy SEAL with 28 years of SOF experience. After enlisting in the Navy in 1987, he attended Basic Underwater Demolition/SEAL (BUDS) training, graduating with Class 159 in 1989. He went on multiple deployments during his fifteen-year enlisted career while assigned to various SEAL Teams including Operations DESERT STORM, UPHOLD DEMOCRACY, and ENDURING FREEDOM I. Commissioned a SEAL Ensign in 2003, he continued to serve in various roles, deploying multiple times to Operations IRAQI FREEDOM, OEF II, and INHERENT RESOLVE. He just graduated from the USMCU Command and Staff College as a distinguished graduate where he earned his Master's in Military Studies. He is assigned to the Strategic Capabilities Office at the Pentagon.

Intelligence from Central Command indicated two Iraqi armored divisions were moved into Kuwait to stop the (amphibious) invasion that never was.

James D. Gray¹

a night transit of 70 nautical miles in a sea state of two (smooth seas).

At Mina Saud, Kuwait, the SEALs under Lt Tom D. Dietz, assigned to Seal Team Five, boarded their CRRCs and moved into the target area. The high-speed boats loitered to provide recovery or hot extract if needed. Within two hours, the SEALs in the area planted demolition charges and beacons to indicate an amphibious landing and exfiltrated. They linked up with the CRRCs and transited to the recovering high-speed boats. The boats then moved within 200 yards of the beach and conducted two firing runs on bunkers with .50 cal machine guns, Mk-19 and 7.62 mm mini-guns and threw satchel charges into the water during egress. The demolitions planted by the operators exploded shortly after leaving the area, and air strikes were called in. The raiders returned to base shortly before dawn.

The 2 August 1990 invasion of Kuwait by Iraq initiated the largest deployment of U.S. forces since the Vietnam War—Operation DESERT STORM, the U.S.-led coalition liberation of Kuwait, in January 1991. The “U.S. Special Operation Command (USSOCOM) executed the largest deployment of Special Operations Forces in history.”² A small contingent from U.S. Special Operations Command, SEALs, and special



Critical skills operators during a training exercise. (Photo by Cpl Bryann K. Whitney.)

the conventional campaign to liberate Kuwait. Special operations forces (SOF) conducted numerous operations in support of Operation DESERT STORM, including special reconnaissance, direct action, civil affairs, psychological operations (now referred to as military information support operations), and

tions of the war, allowing the conventional forces of V Corps, I MEF, and the British to complete major combat operations in just six frenetic weeks ... SOF won their own victories, liberating more than half the landmass of Iraq on their own.³

SOF capabilities have supported conventional operations with exceptional results in Iraq and Afghanistan, but seventeen years of continuous counterterrorism (CT) operations have resulted in the misunderstanding that SOF is primarily a direct action force. This misunderstanding is exacerbated by SOF being professionally sequestered from its conventional peers and operating under the command and control of USSOCOM. Today, SOF is capable of conducting a wide range of special operations in support conventional operations, including the littorals. SOF may serve as a force multiplier to conventional forces operating in the littorals before, during, and after joint forcible entry operations.

U.S. forces will be required to operate in increasingly contested environments, including anti-access/area denial (A2/AD) zones established by our adversaries. These A2/AD zones are designed to disrupt current U.S. capabilities and war plans by extending the range at which our capabilities can be effectively engaged. SOF can play a critical role in penetrating, deceiving, and defeating these threats.

Special reconnaissance is one mission area in which SOF excels. USSOCOM has developed and fielded manned and unmanned reconnaissance systems designed to work as an integrated system-of-systems capable of penetrating an active A2/AD zone. SOF is capable of conducting long-range, low-visibility insertion and extraction into A2/AD zones via air, surface, and sub-surface mobility platforms. These platforms are interoperable with Navy and Maritime Sealift Command ships and auxiliaries, which vastly extends their range and endurance. The *Marine Corps Operating Concept (MOC)* specifically addresses A2/AD:

The concept will address the differences between ‘rolling back’ an A2AD threat versus creating gaps/seams by

U.S. forces will be required to operate in increasingly contested environments, including anti-access/area denial (A2/AD) zones established by our adversaries.

boats executed the military deception operation that, for a short but critical period of time, fixed a significant portion of Iraqi combat power against a nonexistent threat. This often-overlooked operation demonstrated the disproportionate effect a small, highly trained special operations force may generate in a conventional campaign.

Operation DESERT STORM was a significant test of the newly formed USSOCOM and demonstrated its value to U.S. Central Command in support of

combat search and rescue. Twelve years later, USSOCOM was called upon to support another conventional war with Saddam Husain’s Iraq and again demonstrated its ability to support conventional objectives. John D. Gresham, in *Operation IRAQI FREEDOM: Special Operations Forces and the Liberation of Iraq*, notes:

Much like Operation ENDURING FREEDOM—Afghanistan, Operation IRAQI FREEDOM Special Operations quickly became the key enabling ac-

location and/or time that can be exploited through a maneuver warfare approach.⁴

SOF's long-range, low-visibility reconnaissance capabilities can help identify gaps and seams in the A2/AD zones and serve as an advance force for amphibious operations. In reconnaissance, seeing is only part of the solution; being present makes all the difference to mission outcomes.

The U.S.-led invasion of Iraq in 2003 demonstrated the value of coalition special operations in support of campaign objectives, from the highly successful special operations in Western Iraq, which prevented the employment of Iraqi theater ballistic missiles, to the northern front where SOF "conducted one of the greatest Unconventional Warfare campaigns in the history of warfare"⁵ by mobilizing and supporting Kurdish Peshmerga forces against much larger Iraqi formations. In addition, coalition special op-

erations in the littoral played a decisive role early in the campaign. Gresham, also notes:

Though not well reported, the maritime SOF campaign in the Iraqi littorals was a large and difficult undertaking, involving a wide variety of units from several nations ... A brilliant campaign, OIF SOF operations in the littorals will be a model for future operations for years to come.⁶

Special operations in support of the liberation of Iraq demonstrated SOF's ability to serve as a force multiplier during a conventionally led invasion. The *MOC* states:

Marines and SOF are naturally aligned in terms of mission approach and execution. Forward-deployed in similar geographical areas, both are actively engaged in shaping operations and able to respond immediately to crises as well as perform operations in a sustained campaign.⁷

In future major operations, SOF will play a critical role in all phases of the campaign across all domains.

SOF has proven capable of finding, fixing, and finishing high-value targets. Over the course of the last seventeen years, high-value targets have become synonymous with violent extremist organization senior leadership, such as al-Qaeda Senior Leader Osama Bin Laden, but the *DOD Dictionary of Military Terms* defines a high-value target as "a target the enemy commander requires for the successful completion of the mission."⁸ High-value targets in the contested littoral environment may include enemy command and control centers, communications nodes, A2/AD sensing and targeting sites, and small islands or artificial structures preventing the maneuver of coalition forces. Through employing low-visibility, long-range insertion/extraction capabilities, SOF could locate and attack these high-value targets with cyber tools that re-

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Insertion of special operations units will be an enabling action in future conflicts. (Photo by Cpl Aaron Henson.)

quire physical proximity to employ in order to sabotage critical infrastructure or inject confusion into the enemies' decision cycle. SOF is not limited to kinetic attacks; it has developed and fielded capabilities to exploit enemy vulnerabilities across multiple domains.

SOF is capable of seizing key terrain, such as the port facilities of Um Qasr or oil rigs in the northern Arabian Gulf during Operation IRAQI FREEDOM.⁹ The *MOC* points out the requirement

nel) level, which provides command and control for all of SOF in a designated geographic area of operations. (There are exceptions, but this is the rule.) Multiple JSOTFs may be established to support the geographic combatant commander's objectives under the operational control of theater special operations command. In order to ensure the coordination and deconfliction of special operations, the JSOTF will seek to embed liaison elements with adjacent

USSOCOM, its Service components, and theater special operations commands continue to plan, train, and prepare for future major combat operations. SOF is capable of conducting operations through all phases and across all domains of a major combat operation, especially in the littorals, where stealth, speed, and range are critical attributes that enable SOF to be a force multiplier.

Notes

1. James D. Gray, *NSW Boat Teams Set Stage for Operation DESERT STORM*, (Coronado, CA: Naval Special Warfare Command, 2016).
2. Department of Defense, *Conduct of the Persian Gulf War: An Interim Report to Congress*, (Washington, DC: July 1991).
3. John D. Gresham, *Operation IRAQI FREEDOM (OIF): Special Operations Forces and the Liberation of Iraq*, (Online: Defense Media Network, 2016), available at <https://www.defensemetwork.com>.
4. Headquarters Marine Corps, *The Marine Corps Operating Concept: How an Expeditionary Force Operates in the 21st Century (MOC)* (Washington, DC: September 2016).
5. *Operation IRAQI FREEDOM*.
6. Ibid.
7. *MOC*.
8. U.S. Department of Defense, *Dictionary of Military Terms*, (Washington, DC: 15 February 2016).
9. *Operation IRAQI FREEDOM*.
10. *MOC*.

In reconnaissance, seeing is only part of the solution; being present makes all the difference ...

to operate from expeditionary advance bases;¹⁰ SOF could help to secure small islands for expeditionary advanced bases ahead of or in conjunction with Marine forces. Expeditionary advanced bases could support air, surface, and sub-surface SOF capabilities as well as command and control centers for a joint special operations task force (JSOTF).

Supporting littoral operations will create challenges for conventional leaders not accustomed to working with SOF. SOF is nominally task organized as a JSOTF (at the Navy Captain/Colo-

units and battlespace owners. These elements provide realtime coordination for SOF as well as subject-matter expertise in support of planning. Seventeen years of sustained combat operations conducted in coordination with conventional forces have proven the liaison element's value in decreasing the friction of special operations.

SOF has a demonstrated track record of success over the last 30 years in supporting conventional force objectives in major combat operations. From operational deception to long-range raids,



Unknown Knowns

Why we need joint SOF planners in the operational planning team

by CDR James L. Clark, USN

In 2003, I was a newly commissioned ensign assigned as the Assistant Operations Officer, SEAL Team Two (ST-2). We received a naval message from Expeditionary Strike Group 2 (ESG2), tasking ST-2 to conduct the beach reconnaissance of fourteen linear miles of beach with a SEAL platoon in support of the first-ever combined amphibious exercise in the Florida panhandle and provide the appropriate hydrographic and terrain analysis and products in thirty days from receipt. There were several problems with this request, not the least of which being we no longer used SEAL platoons to conduct hydrographic beach reconnaissance in support of an ESG. This task would have taken almost 60 days for a single SEAL platoon to complete. My commanding officer was perplexed by this message and directed me to engage with the ESG2 staff in order to have them rescind the message and release a new one.

Needless to say, the ESG2 staff was unreceptive of our request; their commander had issued the message, and if we were unable to support, we should respond in message traffic. After several hours of arguing that ESG2 had improperly tasked ST-2, and that a simple rescinding of the previous message and release of the language we provided would allow us to meet the ESG2 commander's intent, the staff finally agreed to allow me to make the case to the commodore. I explained that by directing a SEAL platoon to conduct the beach reconnaissance, he had directly limited my commander's ability to employ capabilities that could better accomplish the directed tasks in the allotted time. In less than fifteen minutes, the commodore agreed to rescind the previous message and release the new language ST-2 had provided.

>See bio on page 21.

I returned to the ESG2 staff fourteen days later, not with a single hand-drawn hydrographic reconnaissance chart of a small section the beach (which the ESG2 staff was expecting), but with two giga-bytes of side-scan sonar charts of the entire fourteen linear miles of beach, from the three-and-a-half fathom curve to the first major terrain feature above the high water line. The ESG2 staff relied on an outdated understanding of SEAL capabilities and how special operations forces (SOF) could support their requirements.

These questions demonstrate a lack of knowledge about how SOF capabilities and missions may be integrated into a large conventional operation or campaign.

SOF executes unexpected actions at unexpected locations when the enemy least expects them. To accomplish this, SOF operates in small formations, or teams, that are capable of operating as part of a larger, distributed force working toward a common end state across multiple domains. When you think of other SOF, what missions come to mind? Direct action and special reconnaissance, but that is only a small part of the SOF operational portfolio. A common misperception is that SOF begins and ends with counterterrorism (CT),

A common misperception is that SOF begins and ends with counter-terrorism (CT) ...

As a student at Marine Corps University's Command and Staff College, I had the opportunity to conduct multiple planning exercises and war games. The focus of most of the exercises and war games was how to fight the MAGTF; however, even here at the "Cross Roads of the Marine Corps," there was an understanding that virtually every military action the United States undertakes will be a joint action. As one of only four joint SOF officers in the course, I was often asked very specific questions: "Can a SEAL platoon conduct a raid to ...?" "Can the Green Berets recon this target in support of ...?" or "Can SOF aviation penetrate an integrated air defense network?" The questions were often asked well into course-of-action phase of the planning process as a means of solving tactical shortfalls.

and this perception is based on the fact that SOF has played a very visible role in the current CT fight; but CT is not the only mission area in which SOF actively engages. A significant portion of SOF is deployed to support foreign internal defense and security force assistance, conducting operations by, with, and through a partner nation's security forces against state and non-state actors who threaten U.S. and partner-nation interests in dozens of countries that are not directly engaged in the CT fight. These two mission areas are often unknown to conventional planners but constitute a large portion of SOF's operational capability. SOF also conducts unconventional warfare to develop and support indigenous forces against state and non-state actors. Counter-proliferation of weapons of mass destruction,



Often, SOF will be involved in non-combat situations. (Photo by PFC Kenny Nunez Bigay.)

foreign humanitarian relief, hostage rescue, and preparation of the environment are a few of the other missions areas you can expect to find SOF operators conducting around the world. SOF is constantly engaged across the globe, as a function of “steady-state” operations, to develop and maintain a network of highly capable SOF partner forces to defend our allies and interests. SOF civil affairs operations and military information support operations capabilities are often leveraged by other government agencies, such as the Department of State, far from any active combat zone or crisis area. During a recent testimony to the House Armed Services Committee, GEN Raymond A. Thomas, USA, Commander, U.S. Special Operations Command, stated,

On a daily basis, we sustain a deployed or forward stationed force of approximately 8,000 across eighty plus countries. They are conducting the entire range of SOF missions in both combat and noncombat situations with a wide variety of Joint, Interagency, International, and Multi-national partners.¹ These small teams work by, with, and through this global SOF network to affect our Nation’s enemies.

There are several differences between the military decision-making process² and the Marine Corps Planning Process (MCPP), the most notable of which is

the emphasis placed on problem framing in the MCPP. The operational planning team leader’s guide states,

The ultimate goal of problem framing is to gain an enhanced understanding of the problem and the environment in which it must be solved. It is not enough to simply identify the problem. The Commander and his staff must understand why it is their problem.³

There are 30 pages associated with problem framing and 20 on course-of-action development. Problem framing sets the conditions, both enemy and friendly, for the rest of the planning process, and getting this process right is critical. Understanding the problem

... every effort should be made to incorporate SOF planners ...

is critical to effective planning, but so is understanding the tools available to solve it. Conducting the enemy and friendly center of gravity analysis enables a greater understanding of the strengths and weaknesses of both in order to exploit enemy weaknesses through friendly force strengths. Prob-

lem framing is the foundation upon which the rest of the MCPP is built; get it right and you will build an executable plan, get it wrong and you will suffer the consequences.

SOF brings capabilities to the battlefield not found in other units and will most likely have its own geographic combatant commander-directed missions in virtually all future conflicts, contingencies, or engagements. A conventional operational planning team (OPT) should give serious consideration to requesting a team of joint SOF planners from the appropriate theater special operations command (TSOC) to support their effort. A TSOC serves as the geographic combatant commander’s special operations component command, responsible for all SOF and operations in the theater. Each TSOC has a J-5 section responsible for SOF planning in support of its geographic combatant commander. At a minimum, the TSOC planners can provide your OPT an understanding of what is currently in theater, what operations are active in the area of operations, the geographic combatant commander-directed tasks for the TSOC under current or projected conditions, and, most importantly, what capabilities are and are not available to the OPT for planning purposes. Regardless of the time allotted, every effort should be made to incorporate SOF planners as early as possible, even if it must be done remotely. Developing a collaborative environment will pay dividends should plans become operations. There is a high probability that SOF already has forces on the ground, either in the crisis zone or in countries directly adjacent to it. These forces not only provide realtime situational awareness but also often serve as an advance force for follow-on coalition operations. Working directly with the TSOC during the planning process can also help shape SOF operations. This may enhance the effectiveness of conventional forces by aligning SOF capabilities with specified or implied tasks developed during problem framing. As stated above, direct action and special reconnaissance are only two mission areas. SOF is able to conduct a wide range of missions across all domains

while maintaining a low profile. The 2003 U.S.-led coalition invasion of Iraq provides several examples of SOF operations in support of a conventional campaign; from hunting mobile ballistic missile launchers in the Western deserts to conducting unconventional warfare with Kurdish forces in Northern Iraq, SOF were critical to the overall initial success of defeating Saddam Hussain's military forces during Operation IRAQI FREEDOM.⁴

Current and envisioned battlefields pose complex problems to the conventional planner. These complex problems may frustrate the capabilities available to the conventional force planner. SOF planners offer novel solutions to complex problems. SOF capabilities may support conventional objectives, reducing the risk to both mission and force. A joint SOF planning team should be brought into a conventional OPT, early in problem framing, if possible. Involving SOF planners will, at a minimum,

SOF planners offer novel solutions to complex problems.

reduce friction between SOF and conventional forces and may develop effective solutions to complex problems while maximizing the resources available to affect the enemy.

Notes

1. GEN Raymond Thomas, USA, Commander, U.S. Special Operations Command, "Statement to the House Armed Services Committee," Opening Statement, United States Congress, (Washington, DC: 2 May 2017).

2. Department of the Army, Center for Army Lessons Learned, *Handbook No. 15-06, Military Decision Making Process*, (Fort Leavenworth, KS: March 2015).

3. Headquarters Marine Corps, *MSTP Pamphlet 5-0.2, Operational Planning Team Leader's Guide*, (Washington, DC: May 2017).

4. Thom Shanker and Eric Schmitt, "A Nation at War: Special Operations; Covert Units Conduct A Campaign Invisible Except For The Results," *The New York Times*, (New York: 6 April 2003).



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Foreign Disclosure

What Marines need to know

by the Staff, Strategy and Plans Division, PP&O

Most likely, everyone reading this can think about a few times they have had professional interactions with one of our allies or partners. This encounter may have been a combat deployment, combined exercise, or as a member of a mobile training team. Did you discuss tactics, techniques, and procedures? Lend out a copy of a doctrinal publication that you never received back? Give the foreign partners a familiarization ride in a vehicle and provide an overview of its capabilities and limitations? Did your commander, at the last minute, decide someone needed to give hip pocket training to fill white space or volunteer a sergeant to teach Combat Hunter? The fact is, these seemingly innocuous events may have been policy violations. Marines travel all over the world, working with countless foreign partners, to build interoperability among allies and develop complementary capabilities to enable future Marine Corps operations. A nineteen-year-old private first class showing a foreign national how to buddy rush can be an important tool in U.S. foreign policy, strange as that might sound. Considering the security challenges we face today and the understanding that no Service or country has enough to go around, these types of engagements will only become more important. Security cooperation is a cornerstone of the Secretary of Defense's guidance. According to the new National Defense Strategy (Department of Defense, [Washington, DC: 2018]),

By working together with allies and partners we amass the greatest possible strength for the long-term advancement of our interests, maintaining favorable balances of power that deter aggression and support the stability that generates economic growth. When we pool resources and share re-



Marines travel all over the world and train with countless military forces. (Photo by Sgt Averi Coppa.)

sponsibility for our common defense, our security burden becomes lighter.

We cannot go to war alone, and the success of a combined force requires familiarity and interoperability, which necessitates the sharing of controlled unclassified information (CUI) and classified military information (CMI). For a long time, the authority to disclose CUI and CMI to foreign partners was held only at the highest headquarters, leaving commanders in the field with little guidance on what disclosure authority they had, if any. Without any foreign disclosure subject-matter experts to turn to, and with no direction from their chain of command, commanders either clamped down and refused to share any information—hindering the success of military relationships—or opened the floodgates and shared everything. There is nothing inherently wrong with discussing tactics, techniques, and procedures, or a ve-

hicle's capabilities. However, the proper authority needs to sign off on sharing information CUI or with a foreign government. Regarding the examples in the opening paragraph, Training and Education Command (TECOM) must be contacted for tactics, techniques, and procedures and other formal training; Marine Corps Combat Development Command authorizes doctrinal publication release; and ground equipment information must be approved by Marine Corps Systems Command (MARCORSYSCOM). In fact, the sharing of either CUI or CMI without the proper foreign disclosure approval is a violation of national policy. This in turn requires an understanding of what exactly constitutes CUI or CMI. The annual security training seems easy and straightforward while we are clicking through it to get our certificates, but when confronted with a decision about whether something is unclassified, controlled unclassified, or classified, the

answer is not always intuitive. While we learn early in our time with the Corps that we must protect classified information, many are surprised to learn that something unclassified cannot be shared freely. It is a common misconception that “if you can Google it, you can share it.” It may sound like it takes a lot of coordination to make these disclosure

to make disclosure decisions on behalf of the commander. Foreign disclosure representatives (FDRs) may also be appointed to assist the FDO or be located at lieutenant colonel- and colonel-level commands as unit points of contact/subject-matter experts, but only FDOs can make the final disclosure decision. Typically, there is an FDO at the Divi-

you loop the FDO in on the planning conferences. Early coordination can help your command successfully pull off the Secretary of Defense’s direction to work with allies and partners while preventing any unintended legal or policy violations.

How do FDOs make their decisions? The holy writ of the military foreign disclosure community is known as National Disclosure Policy (NDP-1). This policy is published by the National Disclosure Policy Committee (NDPC), which consists of the Chairman of the Joint Chiefs of Staff; the Secretaries of State, Defense, and the military departments; and other special members, as needed. It sets out cohesive guidance for every country regarding what, if any, information may be shared and at what maximum classification level. NDP-1 is a controlled document that is only accessible by those who have been appointed in writing as an FDO at a command with disclosure authority. This document additionally contains policy statements published by the NDPC on individual countries, organizations, or disclosure considerations regarding certain equipment or systems. Regardless, NDP-1 requires that any foreign disclosures satisfy the following criteria:

- Disclosure is consistent with U.S. foreign policy and national security objectives.

Disclosure authority has been redelegated to every Marine Corps Component Command and MEF, as well as most of their major subordinate commands, down to the general officer level.

determinations; however, you only need to reach out to a single person to ensure the information you would like to share is authorized.

The purpose of the Marine Corps’ foreign disclosure program is to ensure that there are personnel at every level trained and empowered to advise their commanders, make foreign disclosure decisions and recommendations, and understand their left and right lateral limits from a legal and policy standpoint. Foreign disclosure authority originates from the President of the United States and makes its way down to the Commandant through the Department of Defense and of the Navy. Through *MCO 5510.20, Disclosure of Military Information to Foreign Governments and Interests* (Washington, DC: December 2012), the Commandant has delegated disclosure authority for all Marine Corps information (excluding military intelligence) to the Deputy Commandant for Plans, Policies, and Operations. The Marine Corps’ Foreign Disclosure Office in the Strategy and Plans Division exercises that authority on behalf of the Deputy Commandant for Plans, Policies, and Operations. Disclosure authority has been redelegated to every Marine Corps Component Command and MEF, as well as most of their major subordinate commands—down to the general officer level. At each of these commands, a foreign disclosure officer (FDO) is appointed

sion/MAW/MLG level or even down to the MEB/MEU level. These FDOs are trained on the information they are authorized to release to foreign partners themselves and which information requires them to coordinate with other organizations for approval. Regardless, FDOs are the single point of contact for Marines in their commands when it comes to sharing information with foreign governments or international organizations. The earlier you involve your FDO in planning, the better. As soon as someone says “foreign nationals” or “combined,” make sure that



Marines must know what information can be shared. (Photo by LCpl Jose D. Lujano.)



Units can have MTPs conduct a two-day foreign disclosure course. (Photo by Cpl Austin Livingston.)

- Disclosure is consistent with U.S. military and security objectives.
- Disclosure will result in a clearly defined benefit to the United States.
- Disclosure is limited to information necessary to the purpose for which the disclosure is made.
- The recipient government has the capability and intent to protect the information.

FDOs will use the guidance from NDP-1, their experience, and full coordination with other FDOs to ensure a proper balance between sharing and protecting CMI/CUI that is consistent with national policy and meets operational requirements.

To prepare a strong cadre of Marines to act as FDOs and FDRs, a mobile training team consisting of instructors from HQMC, TECOM, and MARCORSYSCOM conducts the two-day Foreign Disclosure Officer Course at every major command at least once a year. This course is required training for anyone appointed as an FDO or FDR and is good knowledge for any SNCO or officer at commands with significant interactions with foreign nationals. In particular, this knowledge is useful for Marines working as planners in the G-3 (operations) of a major command headquarters or as part of a unit that operates independently with foreign partners, such as a MEU or Special Purpose

MAGTF. The course focuses on putting students in the role of an FDO with a heavy emphasis on practical application and exercises vice lectures. Additionally, courses are available on MarineNet to provide a baseline of training on foreign disclosure. *Introduction to Foreign Disclosure, FDO1INTR01*, (Washington, DC: 2015) is designed to provide all Marines with a quick overview and is a prerequisite for anyone attending the two-day, instructor-led course. If you are a battalion or regimental commander, you should identify a Marine on your staff to be an FDR (preferably an SNCO or higher in the S-3) and direct him to the higher headquarters FDO to ensure he is enrolled in the next training event. If you work at the headquarters of a division, MAW, MLG, or MEB, you should ask if your command has been delegated disclosure authority. If the answer is yes, identify and start coordinating with your command FDO. If the answer is no, work with your MEF FDO to get disclosure authority delegated to your commander and make sure a trained FDO is appointed. Commands should ensure that the maximum amount of disclosure authority allowed has been delegated to them and that it is exercised by trained and knowledgeable personnel.

There are two additional foreign disclosure courses on MarineNet that are open to all Marines but more tar-

geted to specific roles: the *Commanders Course, FDO3CMDR01* (Washington, DC: 2015), a short overview for unit commanders on their responsibilities and limitations regarding foreign disclosure, and *contact officer training, FDO2CTOF01* (Washington, DC: 2015), a must for any unit that will be hosting foreign visitors. The contact officer training provides an in-depth look at the roles and responsibilities of contact officers, often called escorts, who are the front line of defense from unauthorized disclosure during interactions with foreign partners. Any time a foreign national visits a Marine Corps installation or organization on official business, there must be a designated contact officer to monitor and support this engagement. This training is required for anyone who is appointed as a contact officer.

At the end of the day, it is in our interest to share as much information as possible with our allies and partners. Fighting side by side is inherently less effective if we do not train together, build complementary capabilities, and establish strong relationships beforehand. Increasing interoperability and mutual understanding requires the disclosure of CUI and CMI if we are to meet the intent of the National Defense Strategy. But, this disclosure must be balanced against the need to protect certain information and only to disclose what is necessary. We also have to be mindful not to damage our long-term strategic goals for the sake of a short-term advantage. The Marine Corps Foreign Disclosure Program promotes that the FDO should not be a stumbling block but an enabler for the warfighter and the overall mission. Reach out to the FDO or FDR in your command to learn more about foreign disclosure or to see what they can do to aid in mission accomplishment.

>Authors' Note: Please email us at PP&O_FD@usmc.mil if you would like the contact information for the first FDO in your chain of command, inquire about FDO training, or learn more about foreign disclosure in general.



Marine Corps Logistics Command 101

Understanding the Marine Corps’ operational-level logistics solutions provider

by MajGen Crenshaw & Staff

Marine Corps Logistics Command (MARCORLOGCOM) is one of two Service-level organizations—Marine Corps Systems Command is the other—that provides operational-level logistics support to the Operating Forces and the Supporting Establishment. Staffed with a small cadre of uniformed military personnel, understanding of MARCORLOGCOM and what it does for the Marine Corps is similarly small. The purpose of this article is to narrow this gap in understanding by building a progressively more detailed picture of the command with the ultimate objective of improving awareness and understanding of one of the Marine Corps’ primary providers of operational-level logistics solutions to the force. This picture will comprise an overview of the command’s mission, mission essential tasks, organization, locations, and a brief overview of its capabilities. As this is a “101-level” overview, we will not cover all of the command’s capabilities, and the ones that we do will be abridged for clarity and simplicity. Nevertheless, the reader will gain an expanded awareness of the command and its role in sustaining the materiel readiness of the Marine Corps.

Mission

MARCORLOGCOM’s mission is to provide globally responsive ground equipment inventory control and integrated operational-level logistics capa-

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bilities in order to maximize Marine Corps materiel readiness and sustainment. To grasp the complete meaning of this mission, it is helpful to further define its key terms. According to *Joint Publication 1-02, Department of Defense Dictionary of Military and Associated Terms*, (Washington, DC: 1994), inventory control is defined as, “That

phase of military logistics that includes managing, cataloging, requirements determination, procurement, distribution, overhaul, and disposal of materiel.” Inventory control is a multi-dimensional responsibility, one that we will illustrate later on in the discussion of the command’s capabilities. The other term that helps clarify the command’s mission

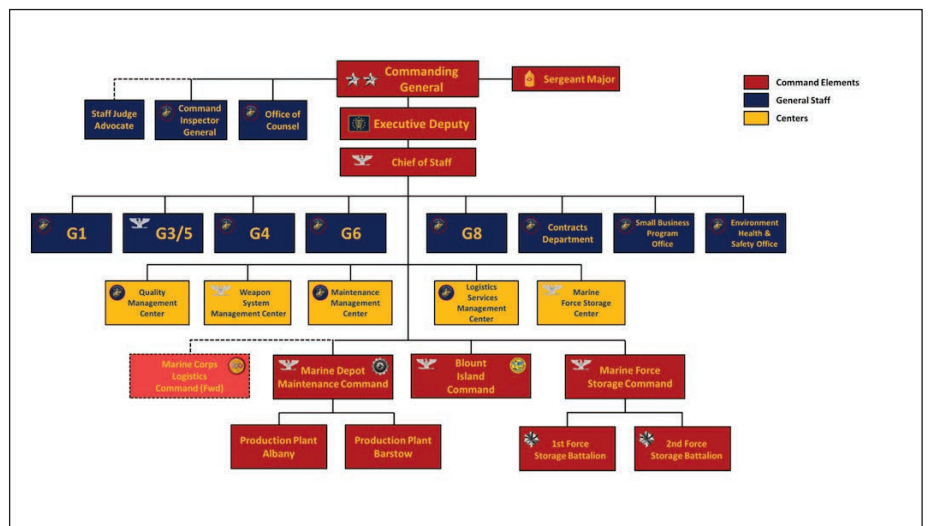


Figure 1.

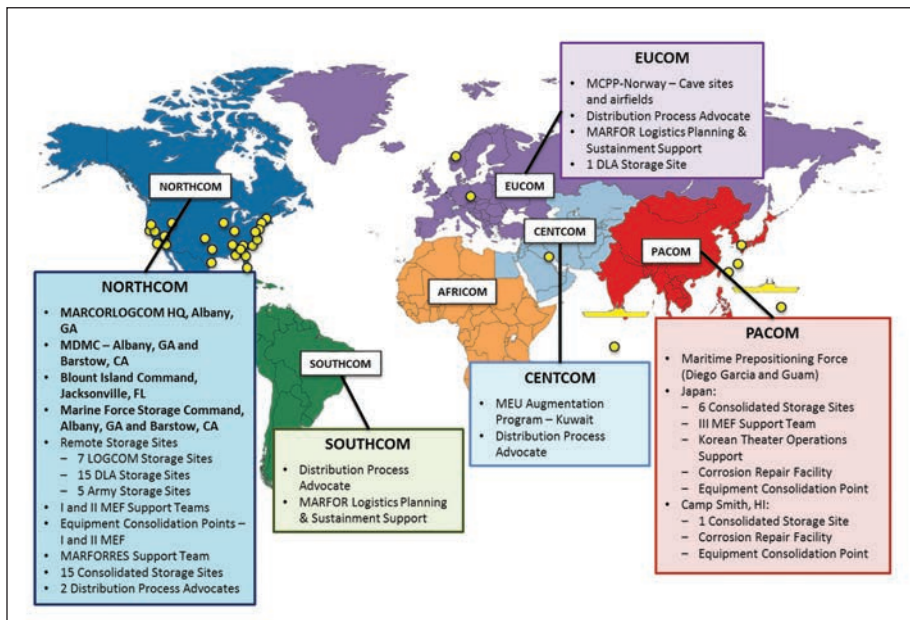


Figure 2.

Mission Essential Task	Task Description
Enterprise Depot-Level Maintenance	Manage the Marine Corps enterprise depot-level maintenance program for ground weapon systems, equipment, and repairable components.
Prepositioning & War Reserve	Conduct logistics program management for Prepositioning Programs and War Reserve.
Ground Equipment Inventory Management	Conduct inventory management for ground weapon systems, equipment, and Marine Corps managed repairable and selected consumable items.
Distribution	Provide reliable and responsive operational-level materiel distribution management capabilities.
Storage	Conduct enterprise-level storage, stock readiness, and Care of Supplies in Storage (COSIS) for weapons systems and equipment, as directed.
Weapon System Life Cycle Support	Provide planning and analysis support to Marine Corps Systems Command (MARCORSYSCOM) and Program Executive Office–Land Systems (PEO-LS) for the Life Cycle Sustainment Plan (LCSP) during acquisition and execute logistics chain integration of fielded weapon systems through disposition.
Operational-Level Logistics	Provide operational-level logistics support and coordinated logistics services to the MARFORs, MEFs, and Supporting Establishment.

Chart 1.

	LOGCOM Headquarters	% Total	Marine Depot Maint Cmd	% Total	Blount Island Cmd	% Total	Marine Force Storage Cmd	% Total	Grand Total	% Total
Enlisted	78	7%	8	0%	70	7%	51	10%	207	4%
Officer	49	4%	3	0%	13	1%	7	1%	72	2%
Civilian	534	46%	1350	66%	83	8%	167	34%	2135	45%
Contractor	509	44%	687	34%	872	84%	264	54%	2332	49%
Total	1170		2048		1038		489		4745	

Table 2.

and establish the context within which it operates is “operational-level logistics.” It is described in *Marine Corps Tactical Publication 3-40C, Operational-Level Logistics*, (Washington, DC: 2016), as, “The coordination and integration of strategic and Service-level logistic capabilities to satisfy tactical-level requirements for logistics that exceed the capacity of Marine forces at the tactical level.” Like inventory control, we will also connect this term with command capabilities to help illustrate how MARCORLOGCOM functions at the nexus between the tactical and strategic levels of logistics.

Mission Essential Tasks

The next part of our developing picture of MARCORLOGCOM is a brief overview of its mission essential tasks. We will develop what these tasks mean in concrete terms later in our capability discussion. These tasks, commonly understood as those externally focused actions, processes, or activities deemed critical to mission accomplishment, include: (See Chart 1.).

Organization

MARCORLOGCOM is organized to execute its mission through a headquarters element commanded by a major general who is supported by a general staff, four functionally aligned centers, and three subordinate, colonel-level commands (see Figure 1). One of the commands, Marine Force Storage Command, was approved in January 2018 by the Commandant of the Marine Corps and the Secretary of the Navy. This command will reach initial operating capability in the summer of 2019 when commanders arrive to fill the colonel command billet at MFSC (Albany, GA) and the lieutenant colonel billets at the two Force Storage Battalions (Albany, GA, and Barstow, CA).

MARCORLOGCOM (Forward) is not a standing organization but rather a provisional capability that can be established and deployed in support of contingencies.

At the outset of the article we alluded to the small military presence at MARCORLOGCOM. To illustrate this further, it is helpful to have a demographic breakdown of the organization to appreciate not only the different nature of the command, especially when compared to a typical operating force command, but also its scale. Overall, MARCORLOGCOM is comprised of 4,745 personnel: 279 uniformed military (6 percent), 2,135 civilians (45 percent), and 2,332 contractors (49 percent). Each command has its own particular mix of personnel (see Table 1).

Location

Geography is another important component in understanding the scope of MARCORLOGCOM and its global mission (see Figure 2). Its worldwide presence is more than a series of physical locations but a network of capabilities that support operating force requirements. This presence includes the various command elements, remote storage locations where the command holds inventory, prepositioned equipment sites (both ashore and afloat), as well as the various activities the command supports at major Operating Force locations.

Capabilities

Depot maintenance. Deciding what equipment requires depot maintenance is part of a deliberate, enterprise-level requirements determination and financial planning process. Known as the Enterprise Lifecycle Maintenance Program (ELMP), stakeholders from across the Marine Corps (e.g., the Deputy Commandants for Installations and Logistics; Programs and Resources; Combat Development and Integration; Plans, Policies, and Operations; MARCORLOGCOM and Program Executive Officer Land Systems; the Marine Forces [MARFORs]; and MARCORLOGCOM) collaborate to develop a plan across the future years defense program that ensures depot maintenance require-

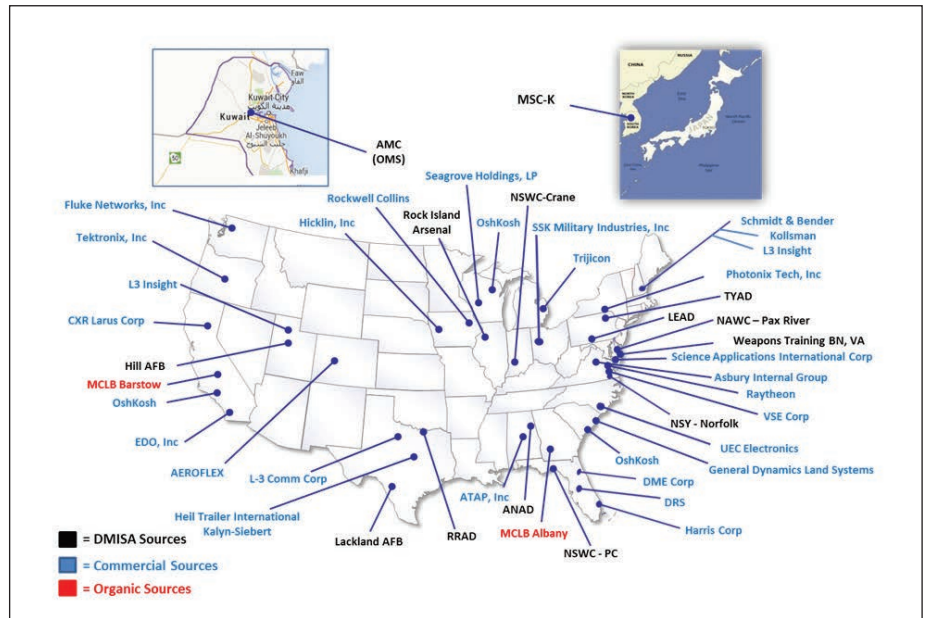


Figure 3.

ments are aligned with Marine Corps operational priorities. This plan currently represents an approximate two billion dollars investment across the Future Years Defense Program. As the day-to-day manager of ELMP operations, MARCORLOGCOM, among its many tasks, is responsible for managing depot funding during the year of execution, coordinating the return of materiel for induction into maintenance, developing the master work schedule, validating unit repair costs, and determining the sources of repair. The latter is particularly important because depot maintenance for Marine Corps equipment takes place across the Nation. The depot maintenance workload may be sourced to commercial vendors as well as to Depot Maintenance Inter-service Support Agreement (DMISA) sources of repair (SOR) (see Figure 3). In turn, the Marine Corps receives workload from other Services such as the Navy, Air Force, Army, and the Coast Guard, an example of the interdependent relationship that our depot has with the larger DOD organic industrial base. During fiscal year 2018, the Service is planning to fix \$359 million worth of depot workload, sending nine percent to commercial SORs, 39 percent to DMISA SORs, and 52 percent to our organic depot.

The Marine Corps' organic depot, Marine Depot Maintenance Command (MDMC), conducts a wide range of maintenance related tasks, including the repair and rebuild of equipment, systems engineering, fabrication, re-manufacturing, and other technical services in order to maximize the readiness and sustainability of ground combat weapons systems. MDMC performs its work at two production plants, one in Albany and the other in Barstow. These plants are strategically situated close to major Operating Force locations as well as large transportation nodes. Barstow is collocated with the largest railhead in the DOD; Albany is located within hours of the major east coast seaports of Charleston, SC, and Jacksonville, FL.

Having an organic industrial maintenance capability is an important and necessary requirement for the Service. Aging equipment requires a well-planned sustainment strategy, one that includes rebuilds and service life extensions, to ensure important platforms such as the AAV, LAV, and the M1 tank continue to perform as required by the Operating Forces. This work is executed largely by MDMC and its partners across the DOD organic industrial base (e.g., the M1 tank is repaired at the U.S. Army's Anniston Army De-



Figure 4.

pot). In addition to sustaining these essential platforms, the Nation's depots are also a wartime insurance policy, rapidly surging to meet the demands imposed by contingency operations. Over the last twenty years, the Nation's depots have surged to double, and in some cases, triple their output in terms of production and direct labor hours. MDMC has been no different, temporarily growing its workforce between 2002 and 2009 by almost 150 percent to meet the demands of operations in Iraq and Afghanistan.

Prepositioning. Blount Island Command (BICmd) maintains the logistical readiness of maritime and geographically prepositioned Marine Corps and Navy equipment and supplies. The facility also provides trained technical assistance and advisory teams to facilitate the rapid, effective arrival, and assembly of scalable and tailorable MAGTF worldwide. Located along the Saint Johns River in Jacksonville, FL, BICmd executes its mission at Marine Corps Support Facility Blount Island (see Figure 4). This 1,200-acre complex supports the execution of the command's worldwide mission, along with prepositioned equipment stored at sites in Norway (Marine Corps Prepositioning Program-Norway [MCPN]) and Kuwait (Marine Expeditionary Unit

Augmentation Program-Kuwait [MAP-K]). The latter, although a prepositioned equipment set, is not a formal program of record.

BICmd's mission is driven by the enterprise-level tailoring process that shapes the prepositioning objective for the two formal prepositioning programs, the Maritime Prepositioning Force (MPF) and MCPN. Tailoring determines the supplies and equipment for the prepositioning programs, en-

Marine Corps prepositioning programs are a global capability ...

sure that prepositioned capabilities will support mission requirements, and seamlessly integrate with the arriving forces. For MPF, the outcome of the tailoring process is a coordinated plan that will be implemented during the next scheduled MPF maintenance cycle. This cycle is a 36-month process that resets the equipment and supplies aboard the maritime prepositioned ships (MPS). During this cycle, ships will depart their assigned area of opera-

tions, alternating between the two MPS squadrons (MPSRNs), and return to BICmd where they will be reset, under government oversight, during a 65 to 85 day period by BICmd's contracted workforce. With the exception of required depot-level repairs and ammunition operations, virtually all MMC activity takes place at BICmd.

The MCPN equipment set is maintained in Norway through a memorandum of understanding between the United States and Norway that covers the storage, maintenance, and prepositioning of equipment and supplies for a MAGTF. The costs for this program are shared between the Marine Corps and the Norwegian government, with maintenance conducted primarily by Norwegian government civilians, supervised by Norwegian military personnel, with oversight provided by BICmd.

MAP-K, while not a formal program of record, does provide Marines with a variety of prepositioned capabilities to support operations and training in the United States Central Command area of responsibility. These capabilities include protected mobility, fires, armor, force protection, and logistics/mobility. The specific equipment requirements stored at MAP-K are developed through a tailoring process led by HQMC PP&O and codified in a forward positioned equipment list. This equipment is maintained by contracted personnel under BICmd oversight.

Marine Corps prepositioning programs are a global capability enabled by their inherent mobility and geographic positioning. By supporting Marine Corps doctrine for the rapid employment of expeditionary forces, combatant commanders can quickly employ tailored MAGTFs for missions across the range of military operations. From the high-end where a full MPSRON can support up to a MEB-sized force, down to individually tailored crisis response force packages that permit the employment of a crisis response capability below the MEB level, flexibility and responsiveness define this important warfighting capability.

Inventory management and weapon system lifecycle management. At the beginning of this article, we highlighted

inventory control as one of the central aspects of MARCORLOGCOM's mission. MARCORLOGCOM's Weapon System Management Center (WSMC) is the hub for this critical activity. It provides enterprise and program-level integrated logistics and supply chain management services in support of the life cycle sustainment of Marine Corps ground weapons systems. In conjunction with MARCORSYSCOM and PEO-LS, WSMC works to influence, coordinate, and execute strategies that support the sustainment of ground weapons systems throughout the various phases of a weapons system's lifecycle, from the early phases of acquisition through disposal (see Figure 5).

As part of the larger weapons system lifecycle sustainment process, WSMC performs enterprise inventory management functions, providing enterprise level fulfillment and distribution planning, and management/reporting of the Marine Corps' military equipment pos-



Figure 5.

Hi, we're (not so) new here.



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ture. It performs these tasks through its commodity-focused weapons system management teams and Enterprise Asset Planning Division. One of MARCORLOGCOM's recent initiatives has been to align military equipment into the command's inventory pillars (i.e., War Reserve materiel, the Marine Forces Reserve Table of Equipment/Training Allowance Delta [this is equipment that the Reserve Component rates but does not have the resources to care for], and the Depot Maintenance Float Allowance) based on current allowances, on-hand inventory, and CMC equipping priorities. This initiative will support more effective inventory management by permitting accurate readiness assessments of strategic in-stores pillars such as War Reserve and allow more accurate resourcing forecasts for these pillars by only focusing on inventory that requires care of supplies in storage and field-level maintenance funding (i.e., not seeking funding for excess materiel or materiel about to enter depot maintenance). Another significant change that will promote improved inventory management will be the command's upcoming move of its military equipment into Global Combat Support System—Marine Corps (GCSS-MC) during the first quarter of Fiscal Year 2019. This move will dramatically streamline inventory management within the command and result in significant payoffs for the operating forces in terms of increased visibility of the command's inventory, better equipment accountability, and improved responsiveness.

Storage. Marine Force Storage Command provides storage, stock readiness, and maintenance management for Marine Corps ground equipment and associated collateral material held in MARCORLOGCOM's inventory. While most of this inventory is held at Albany and Barstow, portions of it are held at 30 remote storage areas in 22 different geographical locations across the country. This inventory represents the largest collection of military equipment and operating materiel and supplies (OM&S) in the Marine Corps. In addition to its size (the in-stores inventory is comprised of approximately 370 thousand pieces of military equipment

valued at \$7.4 billion and approximately 5.8 million OM&S items valued at \$1.3 billion), the inventory is very active, with total issues and receipts from military equipment and OM&S approaching one million supply transactions per year. The newly-established MFSC and its workforce of military, government civilians, and contractors oversees the accountability and stock readiness of this inventory, ensuring that the Marine Corps' War Reserve materiel, the Marine Forces Reserve Table of Equipment/Training Allowance Delta, and the Depot Maintenance Float Allowance are properly managed. This ultimately improves enterprise visibility of what MARCORLOGCOM holds, where it is located, and its condition.

The establishment of MFSC represents a big step forward for the command, allowing the CG to create an accountability structure that interposes a colonel-level command with subordinate lieutenant colonel-level commands between them and this vast inventory. Prior to this, the CG was the accountable officer for the entire inventory. By introducing progressively responsible layers of accountability, the result will be an accountability framework that mirrors, in many respects, what commander's experience in the Operating

The establishment of MFSC represents a big step forward for the command ...

Forces (e.g., a captain or lieutenant supply officer who reports to a battalion commander, who then reports to a regimental commander, etc.).

Aside from rationalizing the command's accountability framework, the establishment of MFSC is helping catalyze other storage improvements at the command. These include initiatives to increasingly automate the inventory process using passive radio frequency identification and to someday employ drone technology to increase "speed to

count" and improve inventory accuracy. There is also an initiative underway to apply embarkation techniques to maximize storage of high value military equipment indoors to minimize the degradation caused by exposure to high humidity and sunlight, ultimately leading to improved stock readiness at reduced cost.

Operational-level logistics support. MARCORLOGCOM provides a portfolio of capabilities that create a connecting file between tactical-level logistics requirements and strategic-level logistical resources. Our tactical-level touch point for these capabilities at the MEFs and MARFORRES is a two-person MEF/MARFORRES Support Team (MST). The MSTs serve as an entry point for requirements while also providing oversight of MARCORLOGCOM provided programs and capabilities. These operational-level logistics capabilities are diverse and they include the following:

- Consolidated Storage Program (CSP): CSP is a global network of 52 issue and storage sites centrally managed at MARCORLOGCOM. CSP provides individual and organizational issue, recovery, storage, requisitioning, and maintenance management for the following commodities: infantry combat equipment, chemical, biological, radiological, and nuclear defense equipment; special training allowance pool equipment, and soft-walled shelters and camouflage netting. The CSP manages a \$2.5 billion inventory of over 25 million items and supports 500 thousand visits per year.
- Coordinated Secondary Reparable Management (CSM): The CSM program enables collaboration among the MARFORs, the Supporting Establishment, and HQMC in order to maintain effective and efficient secondary reparable support for Marine Corps ground equipment. Collaboration is facilitated by embedding support personnel at Reparable Issue Points, coordinating secondary reparable redistributions, conducting site visits to help improve inventory accuracy, and supporting process standardization and training to promote effective management of the Marine Corps'

\$600 million secondary reparable inventory. MARCORLOGCOM helps sustain this inventory through a logistics integration support contract that facilitates the overhaul and repair of approximately \$50 million per year of secondary reparable items.

- **Equipment Receiving and Distribution Teams (ERDT):** The ERDT program provides on-site support to the MEFs, MARFORRES, and Marine Corps Special Operations Com-

tics automated information systems that support not only internal command functions but also enterprise logistics requirements. The Life Cycle Modeling Integrator suite of applications includes Asset Enterprise Management Information System, Total Life Cycle Management-Operational Support Tool, Master Scheduling Support Tool, and Secondary Reparable Total Allowance Recomputation Tool. Respectively, these tools provide en-

and Operation ENDURING FREEDOM, MARCORLOGCOM deployed a command and control element to oversee the command's programs, personnel, and resources in theater. Since disestablished, this capability is available for MARFORs to facilitate the provision of operational-level logistics. MARCORLOGCOM supports MARFOR war planning efforts, providing tailored recommendations for operational-level logistics capabilities to augment their support plans. These recommendations include options for the employment of a MARCORLOGCOM (Forward) capability to enhance materiel readiness and sustainment for the supported force.

MARCORLOGCOM exists, in the simplest terms, to provide logistics solutions for the warfighter.

mand to coordinate initial issue and provisioning functions. The ERDTs track inbound items and coordinate with MARCORSYSCOM to ensure that items are catalogued and configured properly in GCSS-MC so that accountability is maintained from the initiation of an item into the inventory. Since the inception of this program, the ERDTs have processed more than 3.2 million items valued at \$2.3 billion and have improved accountability for fielded assets from less than 80 percent to 99.8 percent.

- **Supplier Relationship Management (SRM):** SRM establishes and maintains productive relationships with Marine Corps wholesale suppliers (e.g., Defense Logistics Agency, General Services Administration, U.S. Army, and the Navy Priority Materiel Office) to maximize supply support and responsiveness to the Operating Forces. SRM conducts supply management readiness reviews (SMRR) with deployed MEUs and SPMAGTFs. Since its inception, the SMRR has resulted in end-to-end monitoring and expediting of over 25,000 high priority requisitions, including 3,000 deployed MEU/Special Purpose MAGTF requisitions expedited through the Navy Priority Material Office, and the provision of over 2,500 critical repair parts to deployed MEUs.

- **Logistics Automated Information Systems:** MARCORLOGCOM's G-6 manages a wide array of logis-

terprise supply and maintenance professionals decision support through Electronic Weapon Record Books; business intelligence through the consolidation of acquisition, logistics, and financial information; visibility of the overall master work schedule process, and secondary reparable decision support.

- **Enterprise Distribution:** MARCORLOGCOM's Enterprise Distribution Division (EDD) provides the Marine Corps with the capability to advocate for cargo movement across the full spectrum of distribution support. The EDD provides advocacy through the use of embedded subject matter experts within the transportation network to monitor and expedite cargo movement in support of the Operating Forces. As the Marine Corps container manager, EDD carries out inventory management functions, logistics support, and oversight of container inspections for approximately 38,000 containers valued at over \$200 million. The EDD is also the primary air clearance authority for Marine Corps, validating and deconflicting Service lift priorities between requestors and United States Transportation Command for high priority cargo moving in the Defense Transportation System. This function provides the Service an annual cost avoidance of over \$3 million.

- **MARCORLOGCOM (Forward):** During Operation IRAQI FREEDOM

Conclusion

This article is a first step in introducing the reader to a large and diverse organization. While we have been selective in the details presented, what should be clear is that MARCORLOGCOM has a broad reach, touching virtually all aspects of Marine Corps materiel readiness and sustainment. As one of only two Marine Corps organizations that occupy the nexus between tactical-level logistics requirements and strategic-level resources, it is important for Marines to have an awareness of the command and how it supports the force. If the article has generated interest or questions about the command and its capabilities, we invite the reader to take additional steps, to move beyond the 101 level and engage us with questions and ideas. MARCORLOGCOM exists, in the simplest terms, to provide logistics solutions for the warfighter. These solutions almost always begin with a well-thought-out question or innovative idea.



USMC Pilot Retention

Bringing back millennials

by LtCol Janine K. "ATIS" Garner

The Marine Corps could soon be facing a pilot retention problem, specifically a millennial pilot retention problem.¹

The institution knows this. In the past two years, the Marine Corps has targeted flight bonuses, increased monthly aviation incentive pay amounts, offered a continuation option to twice-passed captains, adjusted initial accession air contracts from six to eight years, extended CAT I orders to 48 months,² commissioned a study from the Center for Naval Analyses on "Understanding and Forecasting Marine Corps Aviator Inventories," and is aggressively addressing aircraft readiness issues.^{3 4} Most recently, the Marine Corps initiated a three star-led task force to look at the Marine Corps pilot population holistically to determine what problems there may be and ways to address them.

Why it will not be enough. The Marine Corps is working at the highest levels to get ahead of this potential problem. That said, it is not feasible to depend solely on headquarters to retain our aviators. The Operating Forces *must* find ways to incentivize and maximize the retention of our most qualified Marines.

In a 2015 Marine aviator retention survey, the following concerns were registered: insufficient equipment, parts, resources that negatively affect opportunities for flight training, and *extensive hours at work with corresponding negative effects on personal/family time.*

The solution at the operational level is simple; in order to retain our critical millennial population,⁵ we need to do two things: *renew their sense of purpose in the Marine Corps and improve their work/life balance.*

No one can affect those two things for the individual Marine more than squadron commanding officers. The consequences of the actions (or inac-

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tions) of these commanding officers will extend well beyond the 18 to 24 months they are in command.

Give them a renewed sense of purpose. "For 60 percent of millennials, a sense of purpose" is part of the calculus in accepting their current jobs. They crave involved, communicative leadership, mentoring and coaching, and training and educational opportunities.⁶

For an institution that prides itself on leadership and being the world's premiere professional fighting force, this should be easy. The Marine Corps has been making a concerted effort to improve education and training opportunities, but we must continue to make these a priority. Right now, doing anything that takes a pilot off the "golden pathway" to command has long-term repercussions. We must destigmatize education, training, and billet oppor-

tunities outside of aviation while also carefully considering *who* to send and *when* to send them. For example, sending a pilot on an Individual Augmentee or to a school before he has attained all the necessary qualifications during his first fleet tour will have long-term repercussions that could affect his future ability to be selected for promotion or command.⁷

Seventy-one percent of millennials are likely to leave in the next two years and are unhappy with how their leadership skills are being developed—fully seventeen points higher than those intending to stay beyond 2020.⁸

This leadership development begins at the squadron and is driven by the command climate. That being said, a common mistake is to assume that the things which motivated you also apply to everyone else. While this may be the

The U.S. will face a staggering shortage of pilots: Over the next two decades, 87 new pilots will need to be trained and ready to fly a commercial airliner every day in order to meet our insatiable demand to travel by air. That's one every 15 minutes.

**—Jon Ostrower,
CNN Money, 31 Jul 2017**

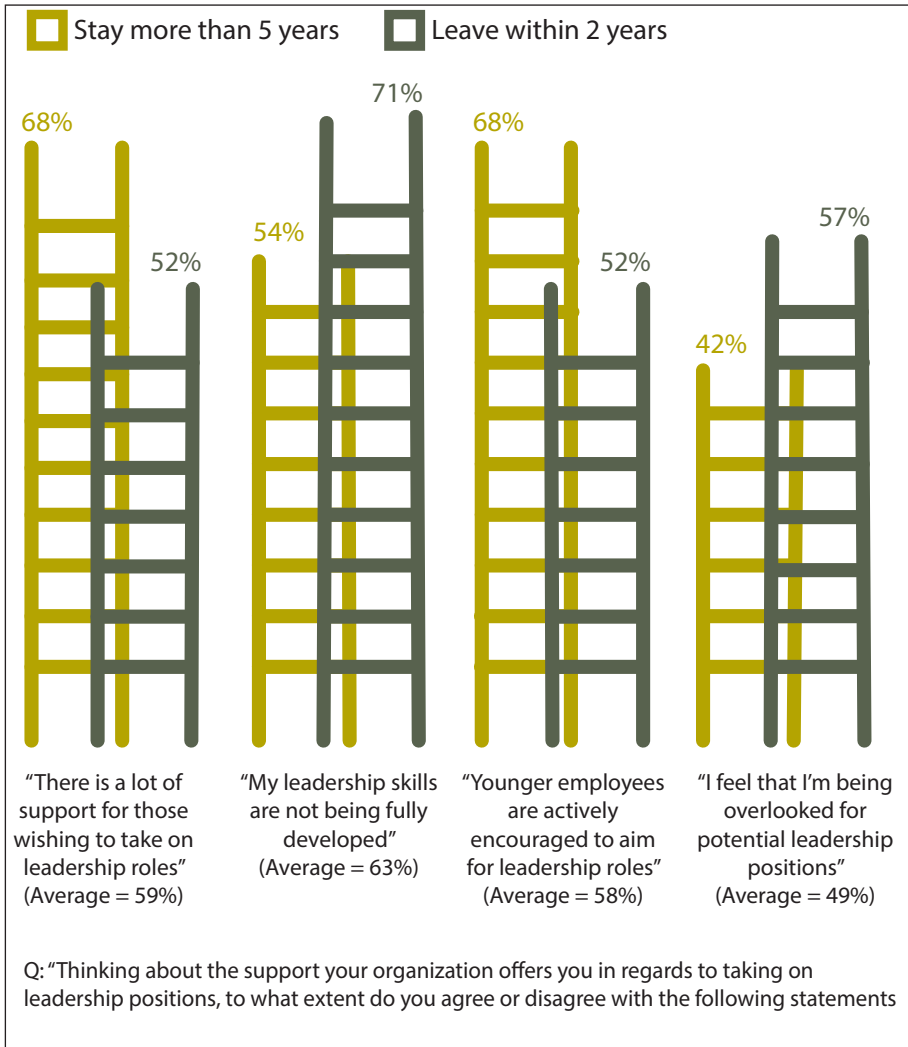


Figure 1.

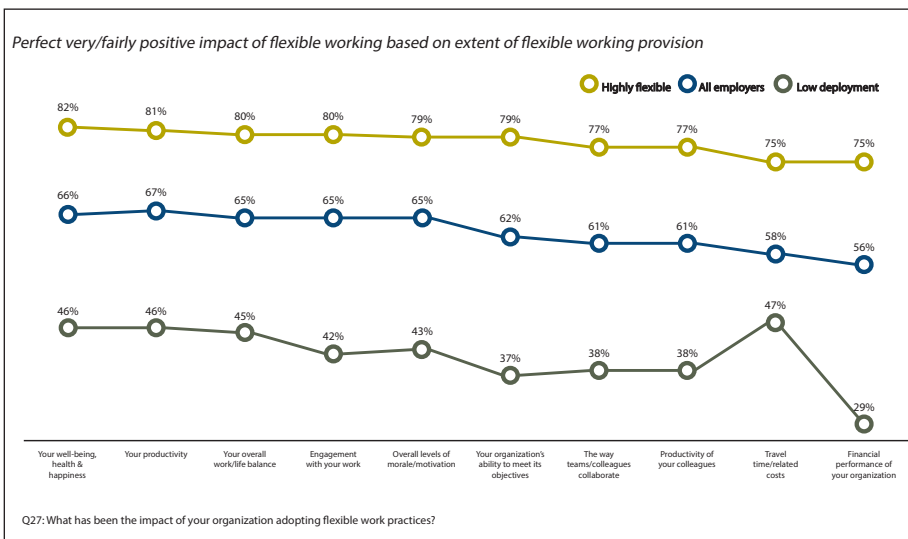


Figure 2.

case with a preponderance of your peers, it should not be assumed for generations senior or junior to your own.

As explained in KC Reid's 20 March 2018 *War on the Rocks* article:

Every kind of person exists within every generation: go-getters and slackers, altruists and self-serving egoists, artists and analysts, optimists and cynics. The *trends in behavior as a group* are what allow us to speak of the differences between generations. While military personnel are self-selecting, the trends, contexts, and habits that unite [generations] shape their attitude toward, and in military service. NetGens and millennials differ in their attitudes toward family, their upbringing and education, and their attitude toward finances.⁹

Millennials expect more feedback and check-ins than any previous generation; annual fitness report feedback is not enough. Studies show that for millennials, feedback and mentoring sessions should be frequent and often informal. Those feedback sessions must contain what the Marine is doing well and what he can improve on and should show support for the attainment of his personal and professional goals. (See Figures 1 and 2.)

Mentoring. While involved coaching is very important, having a formal "assigned mentor" invalidates the mentor/mentee relationship. Assigned mentors are appropriate in certain cases,¹⁰ but these relationships should be temporary and with an express purpose in mind. Long-term mentor/mentee relationships should develop naturally with both members of the relationship as active participants. It is therefore incumbent upon squadron leadership to model this behavior and actively seek to mentor the younger cohort of officers in the unit, which means mentors will likely have multiple mentees.

Mission importance. Helping Marines to see how their work contributes to the overall mission is key. Operations IRAQI FREEDOM and ENDURING FREEDOM were successful in this regard in that one could clearly point at a singular event¹¹ to give purpose and context to what he was doing. Oftentimes, the reason behind our



Safety implications are critical. (Photo by Cpl Francisco Diaz.)

deployments is less clear. Frequently, Marines complain about being away from home for long periods of time for reasons they do not understand. Millennials want to know “why,” and it is incumbent upon commanders to answer that question with more than just platitudes.

Ultimately, giving Marines a renewed sense of purpose boils down to one word: leadership.

Help them attain a proper work/life balance. While pay and financial benefits appear to drive millennials’ choice of employment, the Marine Corps cannot afford to engage in a bidding war for talent; the airlines and other Services can outspend us. As shown in the 2015 aviator retention survey, money is not the sole factor pushing pilots to leave. Even if the Marine Corps *did* have the fiscal ability to simply “throw money at the problem,” it is not working in the Air Force (which is offering a bonus of \$60K a year for 5 years), where the take rate has dropped by 4.9 percent over the last year. Only 34.6 percent of the eligible population took the bonus in 2016. Reasons listed by Air Force pilots for not taking the bonus included: the high tempo of deployments, living a round-the-clock lifestyle with long work days and administrative work unrelated to flying, career tracks that take aviators out of the cockpit for additional educa-

tion and on to staff positions rather than flying, and readiness shortfalls preventing flight hours.¹²

There is a culture in Marine Corps aviation that demands our pilots work during the regular work day with only the bare minimum time away in order to ensure crew rest/crew day is not broken.

Without appropriately qualified and experienced pilots, we risk degradation to both capability and capacity of the MAGTF, violating our statutory obligation to be the most ready when the Nation is least ready.

Fly until midnight? Unless you are flying the next day and it would break crew rest to come in, you better be in for an all-hands foreign object debris walk the next morning.

The safety implications of this should be obvious to everyone in a squadron from the commanding officer down to the most junior Marine. Disregarding concerns that circadian rhythm contributes to cumulative fatigue can lead to poor decisions in the aircraft and, ultimately, cause easily avoidable mishaps. Often unacknowledged is the negative effect this cumu-

lative fatigue also has on the Marine in his home life and personal relationships, which has a direct impact on his morale.

Aside from being unsafe, this also fosters a culture of “face showing” where we would rather have people sitting in the ready room figuratively spinning their wheels than at home, spending time with their families or accomplishing the litany of “life tasks” awaiting them.¹³

Part of this is an exaggeration of standard Marine Corps culture, where there is a belief that you must be physically present and available in order to lead. In a unit where the work day is 24/7/365, anytime and any place (the standard for most aviation units), this mindset is unsustainable for the long run and is burning out our Marines. If your Marines do not need to be in the workspace, *send them home.*

When able, family and personal life situations should be accommodated without the threat of stigma, career repercussions, or passive aggressive punishments (e.g., reducing flight hours or repeatedly scheduling for unfavorable flights/times/duties). We must instill a culture of not just allowing but encour-

aging our Marines to leave the squadron spaces early or show up late to attend to home/life issues. As in all things, the commanding officer must set the example in this.¹⁴

This is not to suggest that Marines should come into work late and leave early every day; the mission must have priority, but *some* accommodation and coordination can and should be done. It takes just a little bit of extra effort, communication, and trust on everyone’s part to ensure the mission still gets accomplished and the Marine’s home/life needs are met.

Certain things should happen automatically; for example, if someone has been gone on an exercise for a couple of weeks—or even just through the weekend—he should *neither be scheduled to fly nor expected to be in the office the first work day he is back*.¹⁵ While this may seem like a logical conclusion to some, it is not the case in practice for the majority of squadrons in the Marine Corps. There is no fenced off “white space” for pilots and aircrew; if you are new to the squadron, expect to be available at all times to get your flight times and qualifications. If you are a second-tour captain, expect to be available to train those younger pilots at all times. If you are a field-grade officer, you are perpetuating the problem by being in the squadron spaces all the time, even when you do not need to be.

Shifting this cultural expectation to one that embraces flexible work schedules, technology, and teleworking when it makes sense to do so will go far in managing a work/life balance for your Marines.

Some commanding officers already do this informally in their squadrons with positive results. Unfortunately, without a holistic cultural shift from all of aviation, any cultural changes implemented by one commanding officer will likely be erased as soon as there is a change of command. We must all accept this as not just what we must do for the safety and well-being of our Marines, but also what we must do in order to make our squadrons more efficient, cohesive, and a place where people actually *want* to be, not one where they feel forced to maintain a presence.

The risk if we fail to change. Aviation is, by definition, a fundamental component of the MAGTF. Without appropriately qualified and experienced pilots, we risk degradation to both capability and capacity of the MAGTF, violating our statutory obligation to be the most ready when the Nation is least ready. While commanding officers cannot give their Marines a raise, lieutenant colonel and colonel leaders have the most impact on retention at the individual level. They control and contribute to a sense of purpose and the work/life balance and ensure needs of



Flight time is important; so is time with their families. (Photo by SrAm Zachary Bumpus.)

their individual Marines are met, thus ensuring their units are prepared to face the rapidly changing global threat.

Notes

1. Millennials are typically defined as individuals born between 1980 and 1995.
2. The first tour, for initially qualified pilots.
3. Poor aircraft readiness affects the ability to produce flight hours, which affects the ability to produce flight qualifications, which affects basic pilot production/flight leadership advancement, leading to a decrease in job satisfaction.
4. For example, Independent Readiness Reviews (IRRs) and the CH-53E reset.
5. Millennials will make up 50 percent of the global workforce by 2020, and the largest share of the U.S. workforce is now made up of millennials, according to the *2016 Deloitte Millennial Survey*, (London: Deloitte Touche Tohmatsu Limited, 2016).
6. *2017 Deloitte Millennial Survey*, (London: Deloitte Touche Tohmatsu Limited, 2017).
7. One way to encourage these educational opportunities is through the Career Intermission Program. It affords the “job hopping” millennial cohort the opportunity to depart the military for one to three years. During this time, they can pursue personal goals (like education, travel,

family time), then come back to the Marine Corps and pick up where they left off.

8. *2016 Deloitte Millennial Survey*.

9. KC Reid, “How the Network Generation Is Changing the Millennial Military,” *War on the Rocks*, (Online: 20 March 2018), available at <https://warontherocks.com>.

10. For example, a new join has a senior Marine assigned as a sponsor to help navigate the ins and outs of moving into the area.

11. The 11 September 2001 terrorist attacks.

12. Stephen Losey, “The Air Force is Working to Max Out Pilot Production — But It Won’t Be Nearly Enough,” *AirForce Times*, (Online: September 2017), available at <https://www.airforcetimes.com>

13. For example, grocery shopping, taxes, house cleaning, laundry, washing the car, or relaxing by reading a book or watching television in order to recharge.

14. *2017 Deloitte Millennial Survey*.

15. This could also be some reasonable comp day/time that is actually enforced.



The Squad-Copter Dilemma

Leveraging UAS technology

by Capt Ryan K. Welsh & Ian T. Webb

Since the first major push to use unmanned aircraft systems (UAS) with long loiter times as reconnaissance aircraft during the initial phases of the second Iraq War, commanders at all levels have relied on cameras overhead of their troops to act as both a guardian angel and an intelligence collection asset immediately viewable by those observing the battlefield from the combat operations center (COC). To a large extent, the U.S. Army, Air Force, and Marine Corps have pushed to make more of these assets a reality. In the Army and Air Force, large Group 4 and 5 operational-level UAS are employed in force around the world. Both Services have armed their platforms, allowing the eyes in the sky to intervene when they spot a threat to the men and women they support. The Air Force has even made its UAS deep-strike capable, a main effort in many cases where there are no friendlies anywhere near the target area.

The Marine Corps has taken a different path with developing its UAS program. Eschewing larger, lethal, and more expensive platforms, it has embraced Group 1 and 3 tactical-level assets with the main purpose of intelligence, surveillance, and reconnaissance and targeting in support of the ground scheme of maneuver. While investment in Group 3 assets (UAS weighing between 55 and 1,300 pounds) like the VMUs' RQ-7 Shadow and RQ-21 Blackjack have been significant, it is with the smaller Group 1 assets (UAS weighing less than 20 pounds) where we see greater proliferation and integration with the Operating Forces. Starting with the Dragon Eye, the Corps has sought to outfit its regiments and

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below with highly mobile, logistically simple platforms that can provide anywhere from 30 minutes to two hours of on-station organic intelligence, surveillance, and reconnaissance. The platforms have since changed, but the focus has not. The Puma, Raven, and Wasp, the Corps' current small UAS (SUAS) family of systems, function primarily the same as a Dragon Eye while adding simplicity and functionality.

However, following the proliferation of UAS in the commercial sector, the Marine Corps has not stopped with just one family of systems for its infantry. There has been a recent boom in the types of UAS requested by, and issued to, Marine Corps units. There are numerous Group 1 systems in development and numerous commercial

off-the-shelf products being utilized by a variety of units, from Communications Strategy's work with DJI Phantoms (now disbarred by DOD order) to MCTOG's (Marine Corps Tactics & Operations Group's) work with 3D-printed quadcopters with cell-phone camera mounts.

This increase in platforms and capabilities brings about a significant increase in expectations for intelligence and fires sections at the regimental level and below. A Raven operator in an infantry company is expected to be able to locate, identify, and report on the enemy; serve as observer and adjust fires for mortars and artillery; conduct battle damage assessments; conduct mobile launches for route reconnaissance; and execute hand-offs with operators located



We haven't stopped with one type of UAS. (Photo provided by author.)

in forward positions. He must accomplish these tasks all while ensuring that he communicates effectively with the COC so that the Raven is deconflicted with direct fires, indirect fires, other SUAS, and fixed- and rotary-wing aircraft.

For every new capability the Marine Corps brings into the fold, there are separate training requirements, qualifications, maintenance and supply programs, intended purposes, and unique aviation deconfliction strategies that must be considered. In fact, the two schoolhouses tasked with conducting all training for SUAS, Training and Logistics Support Activities East and West (TALSA-E and TALSA-W, respectively), are now oversaturated with the number of requests for training versus their ability to conduct the necessary training on the necessary amount of platforms. Given that the average SUAS operator attends a single ten-day course to become qualified and has little to no formal follow-on training, there is one key piece the Marine Corps is missing from its plan to integrate SUAS down to the squad level: UAS expertise.

The Marine Corps currently has a limited number of resources and expertise regarding UAS employment and integration. The first is TALSA-E and TALSA-W. As previously mentioned, these are the only two schoolhouses where Marines can go for initial SUAS training, as dictated in the SUAS Training and Readiness Manual (T&R) (Washington, DC: 2014). The TALSA-SAs provide a limited ability to perform classes overseas at places such as Marine Corps Base Hawaii. However, TALSA is not just responsible for the initial training of all seven SUAS platforms the Marine Corps is currently using (offered in a total of fifteen separate course structures) but for the maintenance and replacement of all broken SUAS parts and as the go-between for all Marine Corps units and the aircraft manufacturers. In addition, the TALSA-SAs make SUAS instructors and evaluators, who are essential for units' abilities to maintain the currency standards as set by the SUAS T&R. Right now, TALSA-E and TALSA-W are conducting pseudo-initial flight training, advanced tactical

training, and intermediate and depot-level maintenance; they are the only organizations in the Marine Corps authorized to do any of this. Their current staffing numbers are twelve for TALSA-E and ten for TALSA-W (soon to be expanded to twelve).

Another place you can go to talk UAS is the Marine unmanned aerial vehicle squadron (VMU), of which we have three active squadrons and one reserve squadron. In stark contrast to the rest of the Marine Corps' UAS usage, VMUs typically only fly one type of aircraft, the RQ-21 Blackjack. The wingspan of these aircraft exceed twelve feet, they have more in common with a Cessna than they do with an RQ-20 Puma or RQ-11 Raven, and they require detailed coordination to fly in any airspace. The VMUs have all transitioned to be a part of MAGs and generally function like any other aviation squadron.

Aside from TALSA-SAs and VMUs, the only other place to talk SUAS in the Marine Corps will be at one of our think tanks, like MCTOG, which are trying to put together the first SUAS tactical handbook. This means that

to air officers at the battalion level, especially considering the number with which companies and platoons are beginning to operate them and the lack of experience most forward air controllers or joint tactical air controllers have with SUAS. Additionally, while intelligence officers generally employ UAS operators, the officers never receive any formal training on UAS operations procedures. The constant fear is that an operator will launch a UAS without proper deconfliction and collide with a passing CH-53, for example. As a result of this lack of expertise, each battalion must reinvent the wheel when it comes to deconfliction and hold repeated classes with all of its operators as the plan is refined.

At 3dBn, 3d Marines (3/3), because of restrictions on Oahu, we began developing our UAS SOP relatively late into our predeployment work up, flying UAS for the first time at the Pohakuloa Training Area on Hawaii's big island. Upon arrival at the training area, we coordinated with local range control, the local Federal Aviation Administration (FAA) office, adjacent ACE units,

SUAS operations are a burden to air officers at the battalion level, especially considering the number with which companies and platoons are beginning to operate them ...

despite trying to push SUAS down to the squad level, we do not have any Marine Corps manuals defining best practices or efficient uses of this "new" technology that has been around for decades. Although SUAS have been widely fielded in the Marine Corps since 2001, we have yet to issue a comprehensive instructional manual. Our investment in the SUAS continues to be focused on technology in volume, not tactics.

A symptom of the absence of standardized usage is a lack of familiarity with airspace integration for these smaller UAS, on the part of both the operators and the airspace control authorities. SUAS operations are a burden

and our battalion air officer and fires support coordination center. Working our way through this problem took two days, and the lack of experience and training on the part of the intelligence shop did not help to inspire confidence when trying to argue for clearance to use airspace. Fast forward ten months, and we have a thorough system for airspace deconfliction, but it was built by trial and error during the limited opportunities the battalion had to operate SUAS. While we have done our best to share with adjacent units, we have never seen a formalized document for SUAS airspace deconfliction. Many precious training hours were spent developing a

system, and this time could better be spent supporting ground operations and pushing the limits of our technology.

The end result of this lack of standardization is that the Marine Corps does not have the infrastructure in place to support its plan to push SUAS to the lowest levels, let alone increase the number of SUAS in a battalion to one per squad, with any expectation of success or safety. The training capability does not exist, the maintenance capability does not exist, and standards of deconfliction simply do not exist. At Marine Corps Base Hawaii, range control has designated one area for UAS flight on base. However, a unit must then submit an approved certificate of authorization from the FAA, submit a letter of agreement, reserve the training area, sign out at range control prior to training, and remain below 400 feet above ground level during all flights. The process is lined out clearly by range control, but these training restraints are so restrictive that we can essentially do the same training off-base at the local UAS park without doing any of this deconfliction. Some of these restrictions are unique to the aviation environment in Hawaii, but we have found that every location in which we have trained is conducting deconfliction based solely on locally developed procedures.

In order for the Corps to remain a technologically relevant force, we need to invest *more* in SUAS, not by increasing our investment in the (overpriced) UAS family of systems we are currently

operating, but by investing in the proper support structure to operate any SUAS system safely and effectively. Before you give a squad leader a quadcopter that can fly hundreds of feet in the air and a kilometer away, there should be a person to speak to when he has questions about deconflicting that airspace from artillery and mortar fire and the proper use of the aircraft so that he does not reveal his position to the enemy. Most importantly, he needs someone to talk to about not hitting friendly aircraft or personnel.

... the Marine Corps must invest in UAS expertise, specifically at the infantry regiment and battalion levels.

There are specific steps the Marine Corps can take to better position our ground forces to effectively employ SUAS. First, the Marine Corps needs to drastically increase the size of its TALSA's, separate the training and logistics responsibilities, and enable Marines to become instructors capable of certifying new operators. While TALSA has done an amazing job, there is entirely too much for it to be responsible for with its current staffing and capabilities. At Marine Corps Base Hawaii, we rely on TALSA mobile training team courses

to train all SUAS operators within 3d Marines. Courses typically occur once every quarter, offering eight seats for Raven and eight for Puma qualification. This is entirely inadequate considering that both Raven and Puma require two operators and that the battalions use Wasps as well. TALSA needs to branch out to Hawaii to allow the battalions the opportunity to train to their full potential.

Second, and more importantly, *the Marine Corps must invest in UAS expertise, specifically at the infantry regiment and battalion levels.*

A suggestion for this is to expand on the experiment conducted by 3d Marines and VMU-3 over the past two years. Namely, the Marine Corps needs to continue to incorporate 7315 Unmanned Aircraft Commanders into infantry battalions and/or regiments on one-year forward air controller tours (as outlined in May 2017's *Marine Corps Gazette* article, "Unmanned Aircraft Commanders as FACs" and discussed in several following issues) and task those officers with managing their units' SUAS programs. This gives the battalion air officer access to a wealth of UAS knowledge and provides a subject-matter expert to advance the battalion's SUAS integration strategies. Not only do these officers provide a wealth of knowledge and expertise, but they also bridge the gap between the air officer, who controls all aircraft for the battalion, and the battalion intelligence section that normally manages and tasks the UAS operators. At 3/3, the level of trust experienced between the UAS operators in the S-2 and the air shop was significantly improved by the presence of a UAS officer serving in the forward air controller role, and this manifested itself in consistent SUAS operations in support of the battalion. From 2017 to 2018, over the course of three battalion-level exercises in Hawaii, Thailand, and South Korea, we flew 89 SUAS flights, totaling 49 hours of flight time; and on 90 percent of those days, there was either live fire for direct fire and indirect fire or fixed-wing and rotary-wing on station, including foreign military aircraft. While our UAS operations were not perfect, we still had



We need to have infrastructure in place to support SUASs at the lowest level unit/team. (Photo provided by author.)

no in-flight mishaps or safety incidents involving SUAS. That record is directly attributed to the trust and proficiency built between our air shop and UAS operators because of the proper SUAS expertise within the battalion.

Equally important, expertise must extend to the enlisted level. The Marine Corps needs to consider B-billets at the infantry battalion level for 7314 unmanned aircraft operators. In June of 2017, VMU-3 aboard Marine Corps Base Hawaii sent two 7314s to 3/3 for a year-long tour, which focused on building 3/3's SUAS program. This tour began during the battalion's workup cycle and continued throughout the duration of the battalion Fleet Deployed Forces deployment to Okinawa. The corporal and lance corporal became part of the S-2, which ran the collections program and owned the majority of the battalion's UAS operators. These Marines immediately became a force multiplier for the section, improving the overall proficiency of all battalion UAS operators by developing a formalized SUAS training program and creating a more robust UAS environment within 3/3. During Exercise BOUGAINVILLE II from July to August 2017 on the big island,



Trust and proficiency will develop a strong working relationship between the air office and the UAS operations. (Photo provided by author.)

lectors with great success. During Exercise SSANG YONG in April 2017 in Suseong-ri, South Korea, the battalion conducted a force-on-force air assault, with one company in the defense, one company attacking over land, and one company conducting an air assault. We kept one of the 7314s with the battalion and attached one to the opposition force company. Both the opposing force company and the battalion flew UAS almost continuously throughout the eight-hour assault, conducting fourteen individual flights and serving as observers for eight

ject-matter expertise over the different weapons systems organic to the unit, air officers to provide subject-matter expertise regarding aviation logistics and fires, and fire support officers to provide subject-matter expertise related to indirect fires. Battalions are now in possession of up to seven separate and unique UAS, from the battalion level down to individual squads. The only sensible move is to provide commanders a resource through which to safely and effectively utilize this new gear set.

In the end, the Marine Corps will need to leverage UAS technology to stay modern. If the expectation is that SUAS be distributed down to the squad level in every battalion, the Corps will need to drastically increase its investment in the support structure behind SUAS. TALSAs need to be expanded or have their responsibilities redistributed, T&R manuals need to be rewritten to allow for training at decentralized locations, and expertise will need to be leveraged in order to train Marines properly. Based on our experience with VMU integration at the infantry battalion level, the Marine Corps should continue sourcing 7315 officers and 7314 enlisted Marines to battalions. Coupled with an increase in training, this expertise will ensure that the infantry is capable of safely employing SUAS to its greatest potential and will make them into another consistent, dependable, and normal part of infantry operations.

... the Marine Corps will need to leverage UAS technology to stay modern. If the expectation is that SUAS be distributed down to the squad level in every battalion, the Corps will need to drastically increase its investment in the support structure behind SUAS.

the battalion conducted fifteen flights totaling nine hours of flight time; were able adjust fire for 81mm and 120mm mortars, both day and night; correlated targets with fixed-wing aircraft; and supported collections for live fire ranges from the squad to company level. This included the use of the Wasp, Raven, and Puma UAS systems and was conducted after a full year of no UAS operations in the battalion.

We employed the 7314s as both company collectors and battalion col-

notional mortar call-for-fire missions. This was conducted with no friction, despite one company arriving via multiple waves of CH-53s from the USS *Bonhomme Richard*. The presence of the 7315s and 7314s was critical in creating the proficiency necessary to conduct safe and effective UAS operations and is a tangible way in which VMU can directly support the infantry.

This call for a 7314/7315 liaison team is not without precedent. Battalions have a gunner to provide sub-



Train like We Fight

The multidiscipline approach to MAGTF intelligence training

by Maj Joshua R. Plummer

“**T**rain like we fight” is a motto that every single Marine, having been indoctrinated since the day he stepped on the yellow footprints or crawled into the Quigley, is intimately familiar with. Despite its cliché concept, this mantra has permeated throughout the Marine Corps and is apparent in our ethos, training, and how we organize and employ MAGTFs to meet challenges in the future operating environment. Ultimately, this motto stresses the need to train in conditions that replicate the rigors of combat, as we are going to default to fighting the way we were trained. For the Marine Corps, this not only means training in realistic conditions that accurately reflect the full spectrum of future operating environments but training as a Marine air-ground team. We see this concept in the way we train all Marines in their basic, entry-level training, to ensure “every Marine a rifleman” and “every Marine officer a provisional rifle platoon commander.” We also see this in the way we composite MAGTFs from units administratively organized by function in garrison—into highly effective, deployable combined arms teams through integration and training. It is difficult to argue with the efficacy of our MAGTFs, and no one will argue that the Marine Corps Intelligence, Surveillance, and Reconnaissance Enterprise (MCISRE) is falling short in any way. But, as the first Marine Corps leadership principle states, “Know yourself and seek self-improvement.” Just because something is working does not mean we cannot enhance it. Perhaps it is time to look at the success of other organizations for fresh ideas to improve the way we train our intelligence personnel and to train like we fight.

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Intelligence components and personnel must be integrated into MAGTFs sooner during the predeployment training cycle. (Photo by Cpl Francisco Diaz.)

Over the course of seven deployments in the last fourteen years, including three MEU deployments, a Special Purpose MAGTF–Crisis Response–Africa (SPMAGTF-CR-AF) deployment, and two joint special operations task force deployments, I have seen more than my fair share of individual- and unit-level training. I had the unique opportunity to serve as the intelligence officer (S-2) for both an infantry battalion in Iraq and an infantry regiment with the SP-MAGTF-CR-AF. On both occasions, it was my privilege and responsibility to composite the human capital of the Marine Corps Intelligence Schools (MCIS) enterprise into effective, all-source MAGTF intelligence teams capable of leveraging the full spectrum of the MCISRE in order to provide timely,

accurate, and relevant intelligence, reduce uncertainty, and support the commander’s decision-making process. For a MAGTF intelligence team, training like we fight means synchronizing the various intelligence specialties that make up the team into a well-oiled machine that leverages the MCISRE through standardized practices and procedures as well as a strong emphasis on repetition. Though in both cases my intelligence teams were highly effective, consistently satisfying commander-, theater-, and nation-level requirements, in hindsight, I know we could have prepared better and, perhaps, been more effective.

For those familiar with entry-level MAGTF intelligence training and standard predeployment training plan (PTP) models, the biggest challenge

we often face when compositing a MAGTF intelligence team is twofold. First, the Marines who make up the various intelligence specialties within a MAGTF intelligence team conduct their individual entry-level training in secluded schoolhouses, at nearly a half dozen different locations across the country within the MCIS enterprise, never exposed to other intelligence disciplines. Within these stovepipes, the students focus almost exclusively on their own specialty and the individual basic skills required to conduct their jobs. Despite recent initiatives to optimize and evolve the structure of our intelligence and radio battalions to be more cross-functional and operationalized, the bulk of these Marines will report from entry-level training directly to units with Marines from only one specialty. Marines who go to a unit with more than one specialty are likely to be primarily organized into sections comprised entirely of their own specialty. Second, these intelligence Marines will typically not train like we fight in an all-source MAGTF intelligence team consisting of the full complement of intelligence specialties until after they composite with a deploying unit. Moreover, it is usually not until well into the PTP at a culminating exercise, such as the Integrated Training Exercise at Marine Corps Base Twentynine Palms, CA. As a result, our intelligence Marines spend a significant amount of time during their predeployment training events focusing on intelligence integration with new team members of different disciplines vice the crucial practices necessary to truly train like we fight. They are unable to focus on what should be the emphasis of these exercises: operations/intelligence integration. With such a great deal of emphasis placed on the importance of operations/intelligence integration as it pertains to mission accomplishment, why are we allowing something so pivotal to take place so late? Rather, we should seek out a new method to allow composited MAGTF intelligence teams to fully integrate earlier and more effectively so they may focus on that vital operations/intelligence integration during their culminating exercises.



A Raider Intelligence Operator (pictured left) conducts operations while forward deployed with a Marine Special Operations Company (MSOC). (Photo by author.)

Attempts to tweak systems that are already effective are often met with resistance, as doing so goes against conventional wisdom. However, optimization is not at odds with Marine Corps doctrine. According to the *Marine Corps Operating Concept*, (Washington, DC: HQMC, 2016), one of the Corps' critical tasks is to "Evolve the MAGTF," stating, "While the idea of the MAGTF

...the Marine Corps must invest in UAS expertise, specifically at the infantry regiment and battalion levels.

is enduring, we cannot afford to allow our thinking about MAGTF constructs to be static." Thus, as the evolution of the future operating environment drives the need for the MAGTF to continually evolve, so too, must our concept of how a MAGTF and its vital warfighting functions train. The current model of Marine Corps PTP has effectively produced MAGTFs capable of responding to crises around the globe. But, in

order to improve operations/intelligence integration within MAGTFs, we must integrate our intelligence components earlier and utilize a more effective approach to achieve a multidiscipline intelligence team. However, the Marine Corps can only improve upon its already effective system by adopting an effective template from another highly successful organization.

As the gateway to Marine Forces Special Operations Command (MAR-SOC), nearly all Marines who deploy with MARSOC units pass through the doors of the Marine Raider Training Center (MRTC). The MRTC mission is:

[To] assess and select personnel for assignment to MARSOC and to train and educate designated personnel in individual, basic and advanced special operations in order to meet MARSOCs requirement to provide capable personnel to conduct special operations.

Much is already known about the critical skills operators (CSOs) and special operations officers (SOOs) who graduate from the MRTC's Individual Training Course to earn the title "Raider." However, less is known about the other Raiders within MARSOC. Special operations capability specialists (SOCS) are specially trained Marines

who provide critical capabilities to deployed MARSOC and other special operations units. All MARSOC dog handlers, communications specialists, explosive ordnance disposal technicians, joint terminal attack controllers, and intelligence specialists train in a separate but parallel pipeline at MRTC consisting of three courses. The first two courses—Special Operations Training Course (STC) and Survival, Escape, Resist, and Evade (SERE) School—are designed to equip them with the warfighting skills necessary to integrate with their assigned MARSOF unit. Following the completion of STC and SERE, the SOCS pipeline splits, and each specialist completes a SOF Level-I course designed to certify him within his occupational specialty. Once SOCS candidates complete all three courses, they earn the SOCS title and become part of the Raider family. The Multi-Discipline Intelligence Operators Course (MDIOC) is the fourteen-week SOF Level-I course that all signals intelligence specialists, geospatial intelligence specialists, counterintelligence/human intelligence specialists, and intelligence analysts within MARSOC must complete in order to become Raider intelligence operators.

MDIOC is regarded as one of the premier intelligence training courses in

all of Special Operations Command and the DOD. The MDIOC cadre, who are hand-selected from the vast pool of experienced Raider intelligence operators certified in the MARSOF Instructor Qualification Course, instruct, mentor, and evaluate intelligence SOCS candidates in advanced individual and collective training standards to generate Raider intelligence operators with the technical and tactical proficiency to conduct intelligence operations as a member of their assigned unit. Though the MDIOC curriculum, which is based on 2000-level training and readiness standards, is not incredibly earth shattering in content, the course's multidiscipline approach to training in an environment that replicates future combat conditions is what sets it apart. Not to be confused with "all source," which is the result of fusing all sources of information, "multidiscipline" is an approach to intelligence that breaks down the traditional stovepipes and organizational boundaries that habitually constrain coordination between the intelligence disciplines. The multidiscipline approach takes full advantage of the diverse backgrounds and specialized skills within the team and fosters constant collaboration throughout the analytical process; this is the foundation of how MDIOC produces Raider intelligence operators.

MDIOC's multidiscipline approach achieves a train like we fight environment via a four-pronged approach. First, intelligence SOCS candidates are organized into multidiscipline teams that replicate the direct support teams (DSTs) they will deploy with units. Though the candidates will routinely train within their specialties, they will remain a part of these teams and periodically train within them for the duration of the fourteen-week course. This team mentality continually emphasizes their multidiscipline functionality from training day one. Second, MDIOC runs against the backdrop of a robust, realistic, and continuous all-source intelligence scenario that drives not only MDIOC but every single course at MRTC. Though not always synchronized in realtime, the information and products collected and generated in each of the courses are cross-pollinated to provide a realistic, collaborative environment that closely replicates combat operations. Third, in addition to the advanced individual skills provided to the four intelligence specialties, MDIOC provides all intelligence SOCS candidates with a common, foundational understanding of intelligence basics such as collection, production, and analysis as well as a foundational understanding of all of the intelligence disciplines and how each specialty mutually supports one another. This common foundational understanding of the intelligence basics, combined with the knowledge of how the disciplines interact and support one another, is the key to establishing an instinctual multidiscipline approach to intelligence. Finally, MDIOC utilizes integration exercises phased throughout the curriculum to facilitate multidiscipline collaboration within its teams and between the disciplines. These integration exercises are keystone events within the curriculum that not only provide opportunities for the disciplines to work together as teams but allow for the use of multidiscipline concepts they have been taught. The integration opportunities within MDIOC include the foundational portion of the course, three specific integration exercises, and a week-long final exercise at Camp Gruber, OK,



MARSOC intelligence specialist go through a multidisciplinary approach to training that replicates combat conditions. (Photo by author.)

where the intelligence SOCS candidates tackle an intelligence problem in a live, 24/7, all-source environment that they cannot solve without the full collaboration of their multidiscipline team.

In addition to the aforementioned four-pronged approach to multidiscipline intelligence training, MDIOC infuses operations/intelligence integration at the DNA level by incorporating experienced CSO and SOO leadership from within MRTC to serve as operations mentors for the candidates throughout the course. These operations mentors serve in the capacity of their intelligence teams' operational leadership and provide guidance to the students at critical junctions in the curriculum, to include many of the integration exercises. The incorporation of these experienced CSOs and SOOs is integral to enhancing operations/intelligence integration for deploying MARSOC units because the intelligence SOCS candidates are forged in an environment that emphasizes integration, teaches them the operational lingo, and ingrains the importance of operationalizing their intelligence.

Once Raider intelligence operators graduate MDIOC, they report to one of three Marine Raider Support Battalions where they will be assigned to a DST within the battalion's intelligence company. These DSTs are not only multidiscipline intelligence teams comprised of all four intelligence disciplines, they are also the element Marines will deploy with. According to standard deployment cycles, DSTs are fully manned well before their change of operational control (CHOP) to their deploying unit—typically a Marine Special Operations Company. During this time, the DST will complete required individual training and two training readiness exercises (TRX). The first TRX is focused on establishing DST SOPs and familiarizing Raiders with their equipment. The second TRX, which is completed just prior to CHOP, is a full-spectrum intelligence collection exercise where the DSTs are evaluated on their ability to complete core tasks. DSTs will then CHOP to the MSOC 180 days prior to their deployment date. Similar to the TRX model, fully en-



An MDIOC student (pictured left) conducts training in support of a live intelligence scenario during the MDIOC final exercise aboard Camp Gruber, OK. (Photo by author.)

abled MSOCs will complete a number of unit readiness exercises. The same crawl, walk, run methodology is applied and MSOCs will complete their PTP with an evaluated full-spectrum exercise known as RAVEN, which assesses their ability to conduct operations/intelligence integration across the spectrum of special operations missions. This PTP cycle is not that unlike conventional MAGTF PTPs, with deploying units compositing and then conducting a full work-up and ending in an evaluated, culmination exercise. However, the distinction between the MARSOC and conventional MAGTF methodology is that MARSOC intelligence teams' multidiscipline foundation allows them to complete their intelligence integration prior to CHOP and enables greater focus on operations/intelligence integration once composited. The results of this methodology have proven to be highly successful in recent operations.

In the summer of 2017, the Islamic State in Iraq and Syria (ISIS) was preparing to make its last stand in Mosul, Iraq. This occurred after many months of Iraqi- and U.S.-led coalition forces systematically taking back territory formerly held by ISIS during Operation INHERENT RESOLVE. The task of spearheading efforts to bring ISIS's aspirations of establishing a caliphate in Iraq to a final end was bestowed upon a

combined joint special operations task force (CJSOTF). At the tip of the CJSOTF spear was a small joint force of special operators who were heavily dependent on multidiscipline intelligence teams to provide accurate and timely final targeting guidance to facilitate the systematic destruction of the enemy. At the heart of those multidiscipline intelligence teams was a MARSOC DST, comprised of Raider intelligence operators distributed in small teams across the forward line of troops. Initially tasked with determining the enemy's composition and disposition in addition to defeating immediate threats to friendly forces, the Raider intelligence operators quickly transitioned to systematically targeting key leaders and command and control nodes. Under the intense pressure of precision targeting, the ISIS stronghold in Mosul crumbled as the CJSOTF methodically tore it apart one network at a time with a rapid targeting cycle that outpaced its ability to counter or recover. The breakneck pace of the targeting cycle enabled by the multidiscipline Raider intelligence teams resulted in the systematic dismantling of ISIS in Mosul. In the end, these Raider intelligence operators' ability to effectively target and destroy a dynamic and determined enemy with a furious targeting cycle is a good illustration of the effectiveness of

the MDIOC multidiscipline approach to training. Their success was undoubtedly enabled by their multidiscipline foundation, early integration, and the DNA-level assimilation of operations/intelligence integration. Furthermore, their accomplishments are a good illustration of the potential this training template offers other organizations within the intelligence community—particularly those with the same expeditionary mindset, such as the MAGTF.

It is important to reemphasize that the MAGTF intelligence-training model is not broken or ineffective; nor is the MARSOC methodology to intelligence training the perfect solution for the MAGTF. MAGTF intelligence teams are training, deploying, and meeting the demands of current and future operating environments. Further, the implementation of a MARSOC training model may not be feasible or wholly necessary for the MAGTF. However, an honest internal look confirms that

optimization is necessary for continued success, and there are efficacies to be garnered and incorporated from other successful organizations such as MARSOC. Though replicating the MDIOC model in the MCIS enterprise is not entirely realistic, there are a number of ways to imbue MDIOC's multidiscipline approach to intelligence training. Without making a comprehensive overhaul, the implementation of a common foundational curriculum of intelligence basics and multidiscipline collaboration across the entirety of MCIS will give students a communal baseline in the multidiscipline approach to intelligence. Running all MCIS courses against the backdrop of a common, full-spectrum intelligence scenario will also not only enable them to embrace all disciplines from their inception, it will also present opportunities for integration and collaboration between the courses. Even if collocation or realtime integration for culminating exercises is not feasible,

advances in technology allow for virtual collaboration and cross-pollination of products between courses and will still emphasize multidiscipline integration even if it were not conducted simultaneously. Earlier integration of MAGTF intelligence teams is problematic because many of the obstacles are underscored by issues largely outside of a MAGTF's control, such as deployment cycle timelines and difficulties associated with manning and shortfalls. However, the acknowledgement of these obstacles does not negate our responsibility to seek out creative solutions to overcome them. Though organizational-level optimization is ultimately the most ideal solution, habitual relationships, cross-unit coordination, and seeking opportunities for pre-CHOP collaboration are just a few resolutions to decreasing the post-CHOP learning curve of MAGTF intelligence team integration, as they can be implemented without wholesale change.

In the end, regardless of whether these initiatives gain momentum at the individual, unit, or MCISRE level, it is vital to recognize the necessity and obligation to consistently seek optimization in the way that we train, deploy, and meet the requirements placed upon the MAGTF intelligence community. As the *Marine Corps Operating Concept* implores, we cannot afford to allow our thinking about MAGTF intelligence constructs to become static. The infusion of a multidiscipline approach to MAGTF intelligence training at the DNA level combined with earlier integration of our MAGTF intelligence teams is a prudent and combat-proven method to improving operations/intelligence integration, accomplishing the mission, and, ultimately, doing our part to evolve the MAGTF in our respective warfighting function.



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Identity Operations Support to TFSW

Opportunities for the information environment

by Matthew L. Gannon

In Helmand Province, Afghanistan, a patrol identifies a low-metallic-signature pressure plate improvised explosive device (IED) constructed primarily of wood and foam but containing enough explosives to cause a lethal effect on a dismounted patrol. After explosive ordnance disposal renders the device safe, it is brought back to Camp Leatherneck and turned into the expeditionary forensic exploitation capability (EFEC) mobile forensic lab, where criminal-investigations-division Marines conduct forensic exploitation and identify two latent fingerprints belonging to the builder of the device. Upon sending the latent fingerprints back to the authoritative databases in the United States, a match is confirmed to a biometric enrollment conducted for base access to Camp Leatherneck several years before. The individual is on the DOD watchlist for biometric linkage to over twenty pressure plate IEDs, several of which resulted in coalition forces killed in action.

The Marine Corps Intelligence Activity conducts identity intelligence analysis and identifies him as one of the most prolific IED builders in Afghanistan, notorious among EOD for the ingenuity of his devices. The individual is nominated as a high-value target, and several days later, a targeted raid on an insurgent compound kills the IED builder. Tactical site exploitation then yields multiple computers, IED components, and electronic devices. Follow-on exploitation enables identity intelligence to map the IED builder's network and feed targeting efforts.

The details of this story parallel a real-world case from 2014 in Helmand Province, where the integration of law

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Marines are capitalizing on lessons learned. (Photo by Cpl Cutler Brice.)

enforcement capabilities and intelligence analysis fed targeting to remove a high-value individual from the battlespace.

The application of identity operations (IdOps) in support of Marine Corps efforts in Iraq and Afghanistan paid major dividends to protect the force and facilitate counterinsurgency operations, especially in attacking enemy networks responsible for lethal aid and insider threats throughout the Corps' area of responsibility (AOR). In three previous *Marine Corps Gazette* articles, "More Than Just Biometrics: Why Marine Corps Identity Operations are Critical to MAGTF Mission Success," "Identity

Intelligence: Denying Adversarial Anonymity," and "Tying It All Together: Identity Operations Support to Information Operations," Marine Corps leaders in intelligence and law enforcement have outlined how the Marine Corps institutionalized lessons learned from Operations IRAQI FREEDOM and ENDURING FREEDOM to apply IdOps, defined as

the synchronized application of biometrics, forensics, and identity management capabilities, to enable Marines to establish the identity, affiliations, and authorizations of an individual, deny anonymity to the adversary, and protect our assets, facilities, and forces,

to current operations in Central Command AOR and how the integration of IdOps can apply more broadly across the information environment. In “Tying It All Together,” Marine Corps law enforcement leadership observed that “identity operations is part of the future fight with a hybrid enemy; its integration is crucial to future successes in the information environment.”¹ Since returning to Helmand Province in April 2017, Marines from Task Force Southwest (TFSW) are again engaged in efforts to bolster Afghan National Security Forces (ANSF) as a coalition partner to degrade and defeat insurgent networks, which presents an opportunity to integrate IdOps with information operations to demonstrate this potential to support targeting throughout the physical, informational, and cognitive dimensions.

The Marines of TFSW are actively leveraging IdOps to identify, mitigate, and exploit potential counterintelligence and force protection threats before they are able to impact the TFSW mission, but as the mission expands, so does the potential for IdOps to integrate into the information environment. Currently, TFSW is utilizing biometrics, documents, and media exploitation (DOMEX) to inform the force protection posture of its missions and installations and for Operation RESOLUTE SUPPORT-wide Security Forces Assistance Brigade (SFAB) periodic vetting initiative—the process by which all ANSF members are screened and vetted prior to training as well as periodically while operating with coalition forces. By integrating biometrics collection efforts using the Marine Corps’ Identity Dominance System-Marine Corps and adding DOMEX and timely identity intelligence reachback support via the MCIA’s Identity Intelligence Analysis Cell, TFSW Marines have completed all of their SFAB vetting milestones ahead of every other theater component. In doing so, they successfully vetted 3,100 individuals and identified approximately 100 potential counterintelligence or force protection threats.² TFSW also utilized MCIA’s I2AC’s reachback support to exploit 370 electronic devices as part of ongoing force

Phase 0 Shape the Environment	Phase 1 Deter the Enemy	Phase 2 Seize the Initiative	Phase 3 Dominate the Enemy	Phase 4 Stabilize the Environment	Phase 5 Enable Civil Authority
<ul style="list-style-type: none"> • Theater Security Engagement • Host Nation Training • Build Civilian Capacity • Joint Ops Planning 	<ul style="list-style-type: none"> • Support to Host Nation Identity Dominance • Maintain Expeditionary Forensic Capability/Flyaway Terms • Joint Ops Planning 	<ul style="list-style-type: none"> • Force Protection • Identity Dominance • Targeting • Joint Ops Planning 	<ul style="list-style-type: none"> • Force Protection • Identity Dominance • Targeting • Detainee Interrogations • Joint Ops Planning 	<ul style="list-style-type: none"> • Force Protection • Detainee Interrogations • Transition to Rule of Law • Regional Focus • Joint Ops Planning 	<ul style="list-style-type: none"> • Force Protection • Host Nation Training • Build Civilian Capacity • Focus on People and Dispersed Operations • Joint Ops Planning

Figure 1.

protection measures in late 2017, in which Marines conducted a thorough search of TFSW installations to identify and exploit host-and third-country nationals’ contraband electronic devices to identify potential insider threats.

The Marines are capitalizing on past lessons learned and applying them to the current fight in an expedient manner, but there is more that can be done. As outlined in the article, “More Than Just Biometrics,” IdOps are best conceptualized as a pyramid comprised of three essential, interdependent efforts: collection, exploitation, and analysis.³ Marine Corps IdOps continue to expand from initial biometric access screening with intelligence support to incorporating DOMEX to now adding the final component—exploitation. The Marine Corps’ EFEC is a mobile forensic lab-gear set, incrementally improved from the Special Operations Command’s expeditionary analysis capability, designed to support expeditionary operations by enabling Marines to extract meaningful information from captured enemy material by detecting latent fingerprints, collecting DNA, exploiting and copying digital media, scanning documents, and conducting presumptive chemical analyses of suspected explosives or narcotics. This capability provided invaluable support to Operation INHERENT RESOLVE’s efforts to identify and target improvised threat networks. The counter-ISIS campaign relied heavily on the synchronized application of IdOps to identify and separate ISIS members from the populace—biometrics helped to positively identify persons of interest, DOMEX helped to identify with whom they were associated and contextualized their disposition and intent, and

forensic exploitation provided conclusive evidence regarding their previous locations and activities. These capabilities are vital to bolster host-nation security forces in a counterinsurgency effort because they support mission assurance and provide actionable intelligence to feed targeting efforts, but, most importantly, the EFEC is run by law enforcement Marines trained to criminal investigative standards and experienced in evidence handling and prosecutory procedures. This integration between law enforcement and intelligence is vital because the intelligence application of IdOps and EFEC functions supports all phases of conflict and can seamlessly support a transition from counterinsurgency targeting to prosecution support packages in order to enable host-nation rule of law. The deployment of an EFEC to TFSW has the potential to eclipse EFEC support to INHERENT RESOLVE (OIR) because TFSW Marines own their battlespace and will devote less effort to deconflicting with combined joint task force assets and oversight. (See Figure 1.)

TFSW and coalition forces’ efforts to degrade and defeat insurgents present an opportunity for IdOps to accelerate and refine support to traditional counter-IED, counter-network, antiterrorism/force protection, and counterintelligence/human intelligence missions; however, the aperture for IdOps should be broadened to further support information operations in Afghanistan. The IdOps community must inspire Marines beyond intelligence and law enforcement MOSs to believe that “every Marine is a collector.” There are Marine Corps communities with placement and access—including civil

affairs, infantry officers serving as advisors, military information support operations (MISO) practitioners, cyber operators, and others—that deal with identity data on a regular basis but do not have an integrated approach to understanding the individuals and networks behind their lines of effort. MISO and public affairs Marines can highlight the successful application of IdOps—kinetic targeting impacts enemy decision making and capabilities in addition to prosecution—which demonstrates effective governance to legitimize TFSW and ANSF activities. Cyber operators could leverage identity data to link individuals of interest to the signals data or capabilities they are targeting. Intelligence Marines utilizing IdOps should endeavor to integrate the exploitation of open-source intelligence or publicly available information, which can provide advanced tipping because the data is available before the person is physically present for screening, regarding the intentions and associates of persons of interest. Publicly available information may be used to identify and screen for potential threats but also to reveal enemy techniques, tactics, and procedures—such as the Taliban using images of attractive women on social media to befriend coalition force members and elicit sensitive information about troop movements—to impact public perception.⁴ Infantry Marines providing security are using IdOps capabilities today for access control, but infantry officers serving as advisors may push their security force to take initiative and collect IdOps data more frequently on suspicious individuals seeking access to Marine installations. Closer integration between identity intelligence analysts and radio battalion Marines could bring more extensive signals intelligence capabilities to the effort. This will reduce timelines for reachback and establish broader relationships to facilitate information exchange. Improved understanding and integration into predeployment training with IdOps practitioners and their S-6 (communications) could drive innovation to better handle the large amounts of data collected by an EFEC or could ensure that time-critical missions re-

ceive more bandwidth to facilitate faster feedback. The Marine Corps could also replicate special operations forces and the conventional Army integration of IdOps by embedding Ops managers into forward deployed MAGTF elements to advocate for a broader use of IdOps capabilities, integrate IdOps data into intelligence support to the warfighter, insert IdOps concepts into operational planning, and participate in the execution of collection operations. The forward presence of IdOps advocates has paid major dividends for special operations forces and conventional Army assets to ensure IdOps appropriately support their traditional missions. The increase of IdOps support to TFSW presents an opportunity for the Marine Corps to continue to pioneer integration with information operations and demonstrate much of the potential aligned under the concept of a MEF Information Group.

The National Defense Strategy and much of the recent DOD strategic discussion concerns how to emerge from a period of strategic atrophy in which the gap between the United States and adversaries has narrowed or closed to counter a peer or near-peer-level adversary in a conflict that, if not directly contested, is likely irregular, hybridized, or executed by proxy.⁵ Contrasted with Iraq and Afghanistan, any conflict outside of the Central Command area of responsibility will entail a “cold start,” where U.S. forces will struggle to identify persons of interest within their battlespace to determine friend from foe. In these situations, the Marine Corps will need to maximize the value of IdOps data already collected by integrating a broad range of efforts and rely more heavily on nontraditional collectors of IdOps data aside from the intelligence and law enforcement communities. The success of these efforts will depend on inspiring Marines with lower visibility—including civil affairs, MISO, training, cyber, communications, and other communities—to think like collectors and take advantage of their placement and access. In phase zero and phase one, IdOps will be vital to provide tipping for key centers of gravity, including command, control,

communications, computer nodes. These should be utilized in addition to key individuals or networks behind strategic military capabilities such as naval and air defense capabilities, cyber operators, information operations influencers, key power brokers, procurement agents, scientists, or commanders prior to the opening salvos of an internecine conflict. TFSW’s current efforts in Afghanistan provide an opportunity to test, adapt, implement, and codify these integrative approaches to IdOps and information operations while the Marines remain in a position of comparative advantage.

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Big Data, AI, and the 2651 Modernization

In layman's terms
by GySgt Brett A. Adams

If you have ever been a 2651 for nearly any amount of time, you have certainly heard the call. Whether the coffee pot no longer heats up or the NIPR network goes down entirely, the call is sounded, and a 2651 works to find a solution to the problem at hand. Although the phrase has become a subtle joke among the 51 community, it seems to cause angst in most of us—while simultaneously triggering a sense of pride forged by incessantly working as jack-of-all-trades while being expected to master them all. As many of us have experienced in the Operating Forces, mastery is rarely attainable, the training, repetition, and time to gain proficiency are always spread over a vast array of technologies and tasks. In this environment, the most versatile 51's seem to rise to the top, even though their knowledge and capabilities are often outmatched by their peers and even some of their subordinates. Likewise, the proficiency of the individual 2651 seems to vary greatly and is heavily influenced by billet and duty station.

Mastering the Trade

To gain proficiency and achieve a *standard*, we have to start limiting the scope of what 51s *actually* do. If we continue to be the jack-of-all-trades where technology is concerned, we may find ourselves stuck in a perpetual cycle of mediocrity. As long as advances in technology continue to outpace how we educate our Marine communicators, we are going to see the 2651 community continually falling further and further behind the power curve. To counter this, we have to break the cycle and begin working toward professionalizing our workforce *as a community*. To that

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end, our community has taken some of the first steps toward reaching that end goal. Right or wrong, the MOS will be going in a different direction in the very near future, and our community needs to be willing to embrace some change.

Professionalizing the Workforce

Improving our training standards. Our MOS roadmap, training and requirements events, and formal schools are all in line to see big changes in the next decade. While some of these items

indicative of how the 2651 community should go about training its workforce, it is clear there is significant room for improvement regarding our current training models. Those improvements are on the horizon, and we are working to implement many industry standards and disciplines into current and new training pipelines and courses.

Narrowing the scope. Although the Marine Corps model as a whole does not necessarily translate to the specialization we see in the civilian sector, we can certainly narrow the scope enough to allow individual Marines to become more proficient in specific job roles; enter the 2652, 2653, and 2659 MOSs. These MOSs are designed to provide individual Marines with specialized training, which will allow those individ-

Our MOS roadmap, training and requirements events, and formal schools are all in line to see big changes in the next decade.

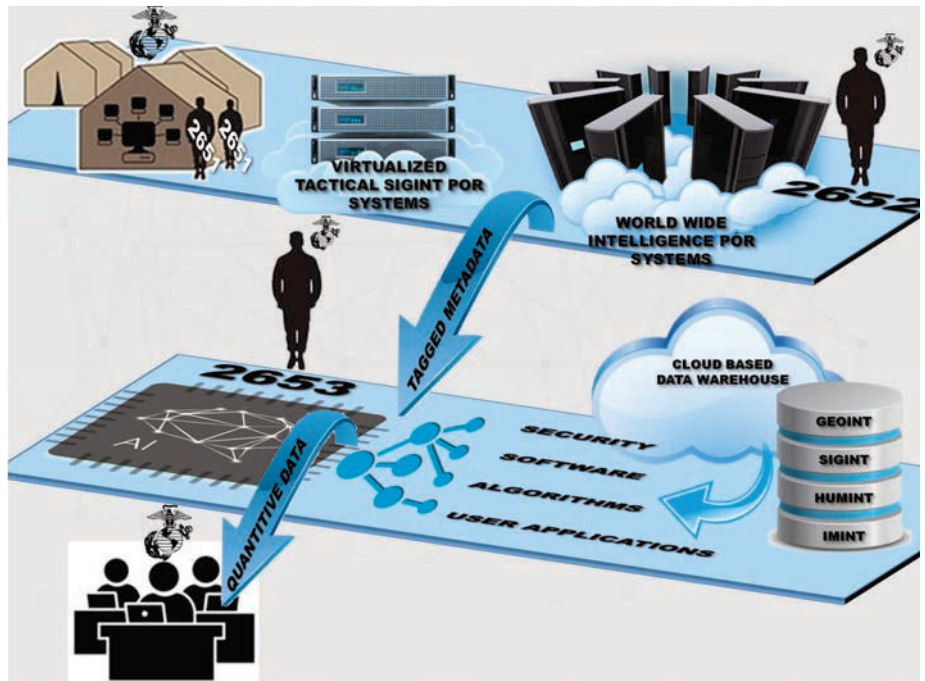
will be overhauled and implemented before others, all of these changes are vital to improving the standard of training our 51 community receives. From revamping and improving our entry-level formal schools to potentially creating completely new senior-level formal training courses, continued education has to be a priority for the community. Industry standards and qualifications should be at the forefront of a holistic training and modernization plan for our MOS. If industry leaders in data, communications, and technology are

uals to fulfill more specific work roles. Although each new MOS is specialized and focused, the work roles complement one another and are centered on achieving comprehensive computer and information systems (CIS) integration, operation, and development.

- 2651: Special Intelligence Communicator. In essence, the 51 job is still broad in nature and vague in practice. The 2651 will understand how to leverage communications resources and assets to best enable secure, reliable, and dedicated CIS architecture. In

short, these Marines will use and employ tactical radio and satellite communications equipment to support intelligence communications requirements. This journey also includes the facilitation of communications and coordination with external and adjacent units, systems, and technology integration. The 2651 will continue to be a jack of many trades; however, when coupled with collaboration and support from Marines fulfilling the 2652 and 2653 work roles, the 2651 has the potential to be much more effective. 2651s will continue to receive baseline training in entry-level schools as well as familiar follow-on courses such as Network +, Security +, the Incidental Radio Operator Course, the Advanced Radio Operator Course, and of course, the tried-and-true method of forging 51s by fire in tremendous amounts of on-the-job-training. Our community should strive toward expanding future training opportunities for enhancing these skills.

- 2652: Intelligence Data engineer. Data engineers will provide direct support to the Marine Corps Intelligence, Surveillance, and Reconnaissance Enterprise by enabling methods of vocabulary, taxonomy and ontology structures, and organized meta-tagging for intelligence data as well as managing local repositories and connecting to external data and cloud services. Essentially, the 2652 will understand who needs what data, what form they need it in, and how to send it to where it needs to be. These Marines are also data handlers, focused on tagging, sorting, processing, and distributing data so it can be used across the enterprise. 2652s assigned to this MOS will receive training in structured query language (SQL), MySQL, and Oracle databases.
- 2653: Intelligence Software/Security Engineer. The 2653 work role most closely resembles the type of specialization you would find in the civilian sector. These Marines design, develop, and enable software-based solutions to solve intelligence challenges across the enterprise. Ideally, the 2653 is capable of delivering tailored programs, applications, and software according to

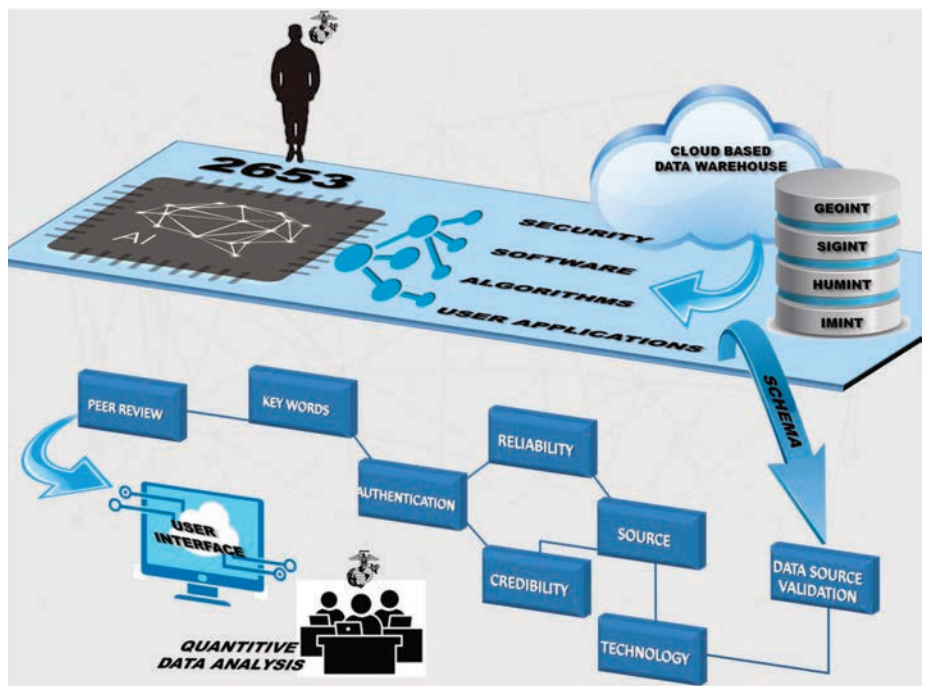


Future Joint Operating Concept outlining operational planes of the 2651, 2652, and 2653.

specific user requirements or needs. These one-off data solutions should provide for quantitative data analysis and ultimately give users the ability to incorporate hard numbers into analytical assessments. 2653s will need to be proficient in a variety of different

programming languages, to include (but not limited to) C, C++, Java, JavaScript, and HTML, to meet these requirements.

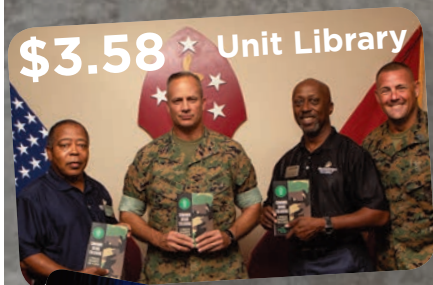
- 2659: Intelligence Technology and Data Chief. These Marines are deployed as subject-matter experts who



2653 software engineers implementing potential data schemas.

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focus on the integration of systems and software as well as coordination, planning, training, and the deployment of systems across the Marine Corps Intelligence, Surveillance, and Reconnaissance Enterprise. 2659s are senior-level advisors who understand systems architecture, security, policy, capabilities, and equipment needs. These data chiefs also understand the importance of activity-based intelligence and how intelligence and non-intelligence data and sources contribute to the multi-intelligence approach to building a common operational picture for the commander.

In Summary

I will be the first to admit that the proposed modernization plan is aggressive and far reaching. If you have kept a pulse on the quarterly 2651 newsletters, then you have probably read the articles or references mentioning things like data science, artificial intelligence, machine learning, and algorithms. These things sound like science fiction to many of us, and it is difficult to imagine a Marine Corps where 2651s, 2652s, and 2653s *actually* use these methods and concepts to do our jobs effectively. The Marine Corps already needs us to be able to use these methods and concepts to make sense of the overwhelming amount of information currently at our doorsteps. As a community, we have to find starting points that allow us to begin implementing some of these methodologies while still utilizing the program-of-record systems that we currently have in our inventory. Admittedly, most of our current program-of-record systems are not optimized for supporting tailored data storage and management solutions. Moreover, they cannot provide the kind of preferred development environment needed to create complex data solutions, software, and applications. Systems and solutions that allow for both of these are potentially years from being fielded. However, we can begin identifying the aforementioned starting points by challenging our community to look seriously at solutions currently available to us to tackle some of these data challenges. Additionally, at this stage of the game, the concepts and

models should receive the bulk of our focus rather than actual data solutions (or the lack thereof). If we as leaders challenge our Marines—especially the junior Marines and NCOs—We will begin to see what we have always seen from the 2651 community: the willingness to adapt, overcome, and figure out creative, outside-of-the-box solutions to hard problems. However, we must first stop looking at big data like a far-off problem that gets solved years down the road. We must take terms like artificial intelligence and *really* talk as a community about what they mean in the current operating environment. Most importantly, we need to talk about these concepts and educate and enable our Marines to come up with creative solutions to solve CIS challenges *today*.

In Closing

There are a million technical rabbit holes that open up as we begin considering how we can achieve the end state of 2651 modernization. As much as I would like to be able to speak to all of them, I am neither qualified nor capable of doing so. However, I do have the capability to continue to talk about the importance of modernizing and professionalizing the current 2651 workforce to prepare the next generation of 26XX Marines to handle the complex CIS problems that are undoubtedly in store. The 2651 modernization begins with educating ourselves, and our Marines, about not only where we are trying to go as an MOS but how we can empower every member of our community to help get us there. This article is one of many things I hope to contribute toward reaching that end goal, and I hope that 2651s will share this with subordinates, peers, and leadership to empower each of you, on some level, to do the same.



Command Climate and Ethical Behavior

Perspectives from the Commandants of the Marine Corps
by Col Brian Kerl

Marines receive detailed instruction on Marine Corps values, standards, orders, regulations, and ethos throughout entry-level training as well as during follow-on professional schools (e.g., the Sergeants Course, and the Expeditionary Warfare School for captains). Furthermore, most Marines serving the Nation do so honorably and abide by the Marine Corps' values and high standards. However, routine incidents of misconduct by a small number of Marines (e.g., Marines United) continue to make the headlines, potentially eroding the trust and confidence of the American people in their Marines. Why is the right path so difficult for some to follow? This is a challenging question and one that every commander must confront.

>Col Kerl retired from the Marine Corps in 2013 and entered the doctorate program in Leadership at the University of San Diego. During the past five years while pursuing his doctorate, he ran the Marine Corps Junior ROTC program at Oceanside High School. He finished his doctorate in June 2018 and plans to have a book out this spring under the same title.

This article summarizes my recent doctoral research project on command climate at the University of San Diego. I begin by discussing some background information covering the purpose of the study, research questions, study approach, study design and methodology, and the research sites and participants. The analysis and coding of the interview data produced four common categories from the cross-case comparison of the Commandants' interviews; I provide a sampling from the interviews. Finally, there were three themes derived from

the four common categories which produced two recommendations—a proposed definition of command climate for the Marine Corps, and a revised command climate survey focused on character development will be discussed.

Background Information

The purpose of my study was to answer the primary research question; what role does command climate play in influencing the ethical behavior within a Marine Corps command?



Gen James T. Conway and author. (Photo by author.)



Gen Joseph F. Dunford, Jr. (Photo by author.)



Gen Alfred M. Gray. (Photo by author.)



Gen James Jones. (Photo by author.)

The two supporting questions that helped to guide the study were; how do the Commandants describe a command climate that encourages ethical behavior among Marines? And, how does a commanding officer develop a command climate that promotes ethical behavior? To answer these questions, an interview approach was used with eight Marine Corps Commandants.

Prior to the interviews, a select group of individuals convened to validate the semi-structured interview guide to be used with the Commandants: Retired Marine colonels Tim Mundy, Marine Corps Association & Foundation; and Chris Woodbridge, the publisher and editor, *Marine Corps Gazette*; LtCol Derek Snell, Lejeune Leadership Institute, and Dr. Paolo Tripodi, Lejeune Leadership Institute. After the interview guide was finalized, eight generals were interviewed in-person over the course of six months: Generals Alfred Gray (29th Commandant, 1987-1991), Charles Krulak (31st Commandant, 1995-1999), James Jones (32nd Commandant, 1999-2003), Michael Hagee (33rd Commandant, 2003-2006), James Conway (34th Commandant, 2006-2010), James Amos (35th Commandant, 2010-2014), Joseph Dunford (36th Commandant, 2014-2015), and Robert Neller (37th Commandant, 2015-present). All interviews were



Gen Michael Hagee. (Photo by author.)

conducted in person at the general's personal residence or his place of business. Only one interview was conducted telephonically.

The Interviews and the Four Common Categories

After comparing the interviews with the generals, four common categories were produced relative to the subject: setting the example, open communications, core values, and responsibility and accountability.

Setting the Example

The commandants discussed how leaders must set the example and that this pertains to even the most senior leadership. Also, commanders must be visible, so the troops can witness the commander's example, and leaders must be selfless.

The senior leader. Gen Dunford emphasized the importance of the message coming from the senior leader when he said, "Proper command climate starts with the example of the leader, the role model, the individual who articulates what is ethical behavior and what standards exist for ethical behavior ... it all comes from the commander." Gen Amos said,

Whoever's in charge is solely responsible for the command climate inside the organization, and that command



Gen Robert B. Neller. (Photo by author.)

climate will dictate the performance of the unit.

Gen Neller said, "The commanders have to model the behavior they expect every other Marine to exhibit." Generals Hagee and Neller both suggested that it is the little things that commanders do or neglect to do. For example, when Neller was a company commander, one of his junior officers took some cake from the dessert tray before the Marines had a chance to eat. Referring to this incident, he said, "It's the little things, it's a lot of little things." In this case, it was the maxim "officers eat last." Gray said, "You have to set the example ... But, you must not only set it, you have to live it."

Being visible. Krulak travelled over 700,000 miles while commandant so he could visit the Marines twice per year at every base and station. Jones suggested that the commander must be visible and show the Marines how leaders act with, "You have to show people how you handle yourself ethically; people need to see that." Gray walked around the Okinawan town of Kinville to talk to the Marines and the locals on how to reduce alcohol-related incidents. Gray's idea of courtesy patrols worked. Conway emphasized the importance of getting out and talking with the troops about his philosophy of command when he said, "They've got to see you when you get intense and see you when your eye

starts to twitch . . . , so they understand their commander.”

Selflessness. Jones emphasized that the leader must take care of the followers first before taking care of himself. Neller commented on the role of the officers when he said, “We’re here to serve them . . . They’re not here to serve us, they’re here to serve the Marine Corps.” Hagee discussed selflessness using the example of ADM Chester Nimitz who declined President Franklin D. Roosevelt’s offer to be Chief of Naval Operations because many other senior officers were eligible for the position, as Hagee said, “It was never, ever about him.” Nimitz always put the needs of others, or the Navy, over his own needs and desires.

Open Communications

Each Commandant stated that open communications is necessary for a healthy command climate and influences the ethical behavior of the Marines. The generals emphasized talking with people face-to-face and the importance of listening and feedback.

Talking to people. Gray suggested that you must talk to people and demonstrate genuine care for their welfare; he said, “I use to go around and talk to a lot of Marines . . . You’ve got to talk to them.” He talked to their families—significant to command climate and its influence on the behavior of Marines. Conway emphasized the importance of taking care of the families and talking to the wives; he said, “Hey, it’s not just about the Marines. It’s about the families too.” He mentioned that commanders must talk to their Marines face-to-face, “Break it down, bring it in . . . sit, kneel, bend.”

Dunford emphasized open communications to articulate the expectations of behavior to Marines, and that the commanding officer’s personal example must accompany the expectations; he said,

Now is not the time for the strong silent type. I don’t actually think we should have the strong silent type in command . . . You’ve got to be the communicator-in-chief.

When Amos was asked to describe what a command climate that encourages ethical behavior looks like he responded,

Number one, there had to be a constant line of open communications, absolutely, and it starts with, it starts with the commanding officer . . . it’s got to be leadership communicating down and followers communicating up.



Gen Charles C. Krulak. (Photo by author.)

Listening and feedback. Gray and Conway discussed the significance of critiques following military exercises and how commanders must listen to their Marines to receive good feedback. Gray said, “There are times when you want to leave your rank behind, particularly at critiques and after exercises.” Hagee expressed strong feelings about the significance of listening,

You have to get the staff to where they will open up with you and have a conversation with you . . . And that means you have to keep your mouth shut and listen, and not shoot anyone in the face.

Dunford suggested that commanders cannot let their egos impede their ability to listen to people when he said,

You look at Chesty Puller, and what was the one thing that characterized him in all of the exchanges with young enlisted Marines? He was asking about

their families . . . He was asking about their personal welfare.

As a five-time recipient of the Navy Cross, Puller was humble when he talked to his junior Marines. According to Dunford, humility is a necessary personal quality that promotes feedback and fosters a climate that influences ethical behavior.

Core Values

The Commandants discussed the Marine Corps’ high, almost spiritual standards, the process of becoming a Marine (transformation), and the significance of high standards relative to winning the trust of the American people.¹ Gen Krulak stated, “The two most important things that the Marine Corps does for the Nation are to make Marines and to win battles.” Krulak focused on the former and said that it is the individual Marines’ values that are key to the Corps’ success and survival.

High, almost spiritual standards. Krulak messages (ALMARs) (e.g., integrity, courage, and fidelity) were linked to the Marine Corps’ values and high standards and were designed to supplement his *31st Commandant’s Planning Guidance* with,

Our Marines’ moral character, courage, and ethical values will dominate any location or operational area with unconditional certainty that the Marine Corps is a force for good.²

Neller said,

I think if we are that Marine Corps that’s willing to appeal because we are different, and we hold people to a higher standard, that we expect a higher level of performance, that we expect a higher level of integrity, of honor, courage, and commitment.

As a result, the Marines will continue to recruit good citizens who will in turn become good Marines. Amos also suggested that the high standards Marines hold is a “spiritual thing” with,

Because it is a spiritual thing . . . That is the stuff that is the visceral deep-down-in things that cause us to be absolutely fearless on the battlefield, and willing to give our lives to the Marines to the left or the right.



Dissertation committee members. (From left to right they are: Dr. Lea Hubbard, Dr. Robert Donmoyer, Dr. Fred Galloway (committee chairman), and the author.) Dr. Galloway is holding the officer's Mameluke sword the author presented him with for being his academic adviser for five years as well as his dissertation committee chairman. (Photo by author.)

Dunford suggested that one of the most important things our commanders must do is to communicate the Marine Corps' high standards to their Marines; he said, "It's the way that the commander communicates the standards that are expected inside the organization."

Better people make better Marines (transformation). Gen Gray mentioned Gen John A. Lejeune's message which suggests that commanders are responsible for making their Marines better people when Gray said, "And that ought to be the guidance from the word go. And better people make better citizens in terms of the good of the country." Krulak and Amos emphasized the importance of character and how we recruit, train, and develop Marines which became known as the "transformation." Krulak said,

Because Marines are the centerpiece of the Corps, how we recruit them, train them, instill in them our core values and a sense of integrity and accountability, equip them to do the job, and treat them with dignity, care, and concern must be a principal emphasis.

Similarly, Amos focused on core values and our roots as Marines when he delivered the heritage and values brief in 2012 and said, "The Marine Corps

can't allow itself to become like everyone else."³ In his *35th Commandant's Planning Guidance*, Gen Amos also emphasized that Marines are guided by the core values and that, "These core values have been the compass for every Marine's service throughout our rich history."⁴ Further, Amos said,

A commanding officer has the greatest influence in determining whether the Marines in the unit are combat ready, whether they're honorable, whether they're forthright, whether they're focused, and how/whether they uphold our values and virtues."⁵

Krulak and Amos suggested that the NCOs play a significant role in sustaining the Transformation.

Emphasizing small unit leadership, Krulak said,

Everybody is going to have to spend some time during the week talking leadership ... And we're going to make sure that it goes down to the very lowest denominator ... So we had something called Power Down ... Krulak's plan to empower the NCOs and junior officers ... to sustain the Transformation.

Amos' "Reawakening" campaign, was designed to remind NCOs of their critical role in making sure Marines live

up to the title of Marine with, "Fully 83.06% of our enlisted force is led by NCOs ... And I need every one of you in this fight ... Never forget *who we are* and *what we do* for our country."⁶

Jones mentioned that commanders have various tools available to assist them in maintaining the Corps' high standards through the Marine Corps' Martial Arts Program (MCMAP), using junior leadership to reinforce discipline, values, and character development. The Marine Corps' Core Values and its high standards enable Marines to maintain the trust of the American people.

Winning the hearts and souls of America.

Relative to the trust of the American people and the Corps' survival; it is incumbent upon all Marines to continually meet the high expectations of the American people and uphold their high standards. As Gray said,

The Nation expects you to be special ... That's the reason that you have a Marine Corps, because the [N]ation wants you to have a Marine Corps, through Congress.

Krulak suggested that the conduct of the individual Marine is just as important as winning America's battles with, "So it's not whether you can win the battles that counts ... It's do you win the hearts and souls of the American people." Krulak shared the example of when two Marines and a Sailor in 1995 raped a twelve-year-old Okinawan girl. Krulak flew to Okinawa to talk to all the Marines about the incident and to reinforce the Marine Corps' values and standards. When he received word that Governor Ota wanted to meet with him, Krulak, a Christian, walked up to the Governor of Okinawa in front of numerous reporters and hugged the governor. Krulak said, "It really defused the people of Okinawa ... But a simple act like that can have an amazing impact because they didn't throw us off Okinawa."

Jones discussed the need for Marines to meet America's expectations when he said, "You should never do anything that embarrasses yourself, your family, your unit, or your country." Hagee and Dunford emphasized that the Marine Corps values life and that we must take

our American values with us wherever we go. Dunford said,

Only by bringing our values with us and representing what's best in the United States of America are we ever going to be able to compete with the perverse ideas that we're dealing with ... The issue for us in the long term is can the United States after all these years of war maintain the ethical standards that define us.

Accountability and Responsibility

Each general discussed the significance of commanders holding themselves accountable first, and to hold their Marines accountable for violations of the Corps' standards and values. Also, the commandants suggested that it is the responsibility of the Commandant and the commanding officers to protect the Marine Corps as an institution, which underscores the importance of the right command climate.

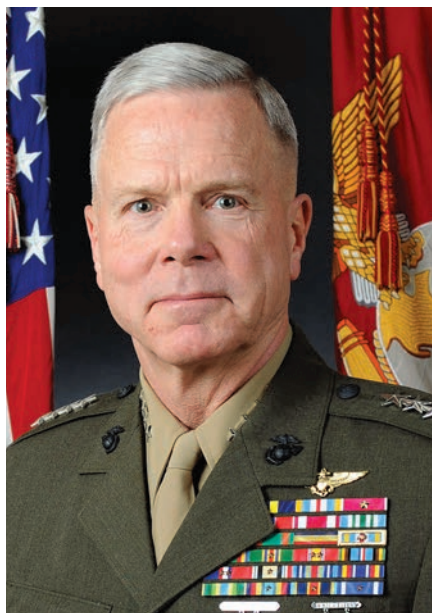
Commanders, climate, and accountability. Gen Gray discussed how leaders must set the example and hold themselves to an even higher level of accountability, which requires self-discipline,

The Nation expects me to be special ... And if I can't live up to that, I can't be a Marine ... And so I think it starts with self-discipline, and I think the commandant's real solution is leadership.

Hagee suggested that one of the best ways for commanders to ensure they are holding themselves accountable is to continually evaluate their leadership and command climate, "What I think the better leaders do, is you're constantly thinking ... evaluating your leadership ... learning from both good and bad examples."

Neller mentioned that the followers have certain expectations of their commanders; he said, "They expect us to hold people accountable, ourselves first and foremost." Conversely, Dunford said,

When you're a commander you are not responsible for the individual criminal conduct of any one individual ... You're responsible for the climate within which those individuals operate every day.



Gen James F. Amos. (Official USMC photo.)

Holding your people accountable. Amos suggested,

If commanders set the right climate then many of the other issues take care of themselves when you've got the right command climate, the right standards, the right things that have been told to your youngsters and the expectations, and you hold them accountable to it. I would say if there are 100 bad things that can go wrong, 95 of them will be taken care of by good decision making."

Hagee used the example of a Marine under his command who was caught shooting some horses. Everyone was waiting to see how he was going to handle the matter, Hagee said, "I court martialed him ... And that signal went out to everyone in the division ... Uh-oh, we'd better do what's right."

Krulak and Conway both used examples of holding senior leaders (i.e., general officers) accountable. When some commanders fail to hold people accountable Krulak said,

They're dead ... They've lost the moral authority to take action ... The most important authority you have is not the four stars on your collar ... It's the moral authority you have in your soul.

Krulak further discussed the importance of holding general officers accountable when he said, "There's no room in the

Marine Corps for situational ethics or situational morality ... Those found wanting will be held accountable ..." Conway emphasized that we must hold all Marines accountable for violations of our core values and standards regardless of their rank or position.

Responsible to the institution. Dunford suggested that a commander can use their climate as a tool to reinforce the message that all Marines receive in boot camp and at officer training:

Keep our honor clean, it is not keep my honor clean, right? It's not keep your honor clean. It's keep our honor clean... So, it's the sense of individual accountability to the institution and the sense of individual actions reflecting the Institution's core values. So, from the very earliest days in recruit training you are instilling in a private the sense of accountability to the values of the Institution and the sense that if you violate those values it's not about you... You are doing something that is putting a black mark on the Institution as a whole, and that's particularly true the more senior you become.

During his heritage and values brief to Marines, Amos quoted then Commandant Carl Mundy, Jr., 30th Commandant of the Marine Corps, who said to Amos, "You can't lose the spiritual health of the Corps as the 35th CMC."⁷ Jones discussed the nature of a leader's environment, how commanders must always be aware of their environment, and that the CNN effect is real and can create false perceptions about the Marine Corps; he said, "I think the first thing that you have to do in our training of officers and staff NCOs is to make sure they understand that they are not invisible ... As a matter of fact, they are visible 24/7 365."

Cross-Case Comparison Common Themes

Three common themes emerged from the cross-case comparison. These themes were derived from a detailed iterative process and analysis of coding the interview transcripts, which produced the four common categories that led to the development of the three themes. First, the command climate set by the commanding officer is significant with

respect to the ethical behavior of the Marines in the organization. Second, the commanding officer's climate must be focused on the routine maintenance of the Marine Corps' core values and the character development of the individual Marine (sustaining the transformation). Third, the Marine Corps can continue winning the hearts and souls of the American people through the ethical behavior of the individual Marine—both on and off the battlefield—which impacts the Marine Corps' survival as an institution.

Recommendations for a Definition and a Survey

The four categories and the three themes were leveraged to construct a proposed definition of command climate for the United States Marine Corps. In the proposed definition, the command climate puts a heavy emphasis on core values and the regular reinforcement of ethical training and education to sustain the transformation of the individual Marine. The proposed definition includes the importance of winning the hearts and souls of the American public and that the command climate must prepare and groom Marines to live by the high, almost spiritual expectations of the American public. The cross-case comparison suggested that the survival of the Marine Corps depends on how well Marines meet those expectations.

Proposed definition of command climate. Command climate refers to the environment set by the commanding officer that enables success for the individual Marine, the unit, and the institution by promoting the Marine Corps' core values, enforcing its high, almost spiritual standards, and emphasizing the importance of living up to the historical expectations established by the American people who believe that Marines are good for the country.⁸

The above definition charges leaders at every level with the responsibility of creating an environment that is grounded in the Marine Corps' core values, ethos, and standards. This environment is where the policies, practices, and intentions of the commander sends a clear and consistent message to Marines about what is valued the most in

the organization—a Marine's character. *Proposed command climate survey.* The purpose of a new survey is to update the Marine Corps' existing command climate survey with new questions to gather respondents' perceptions of their units' command climate and its role on influencing a Marines' ethical behavior. New survey questions consist of demographic information, Likert scale questions to gather feedback on the unit's approach to character development, ethical decision making, personal communications, and open-ended questions about the command's ethical training, leadership, and leadership's involvement with the Marine's character development.⁹

Conclusion

After interviewing the commandants, the analysis suggests that the most important thing a commanding officer of Marines can do is to establish the right command climate that is focused on the Marine Corps' Core Values, the high standards (almost spiritual) that all Marines are expected to meet, and the individual character development of each Marine. To influence the ethical behavior of their Marines, commanders must set the example through their personal actions, encourage the thoughts and ideas of others through open communications, sustain the transformation through the reinforcement of core values, and the on-going character development of the individual Marine. This training and education must be driven by junior leaders, such as NCOs and junior officers, who are closest to the troops.

Finally, for the Marine Corps to continue to win the hearts and souls of the American people, it must continue to not only perform as the world's premier warfighting force, but it must also be known as the world's premier character development institution. This behavior will continue to promote the trust of the American people knowing that Marines are good for the country.

Gen Krulak suggested that the conduct of the individual Marine is equally as important or even more important than the Corps' ability to win every battle that it fights. Krulak's father said

it best about the significance of winning the hearts and souls of the American public:

We exist today, we flourish today, not because of what we know we are, or what we know we can do, but because of what the grass roots of our country believe we are and believe we can do. The American people believe Marines are downright good for the country; that the Marines are masters of a form of unfailing alchemy which converts unoriented youth into proud self-reliant stable citizens—citizens into whose hands the nation's affairs may safely be entrusted. And likewise, should the people ever lose that conviction as a result of our failure to meet their high, almost spiritual standards, the Marine Corps will then quickly disappear.¹⁰

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Character, Redemption, and Resiliency

A holistic look at leadership

by LtCol Rob Warfield, USMC(Ret)

It is time to face reality. My time as an active duty Marine has come to its end. I have been the most fortunate of Marines, having started as private in 1990 to retire as a lieutenant colonel in 2018. Over almost 28 years of service, I have been privileged to have worked with and lead some of the best warriors our country has to offer. With that said, this journey has not been without trials and tribulations that have tested my faith in my Corps and myself. What I am going to offer, through this article, are leadership observations that I have learned over the test of time. I am not going to regurgitate the Marine Corps leadership traits and principles but take a more holistic

>LtCol Warfield was a Logistics Officer (0402/8041) with almost 28 years of leadership experience. He served and led Marines (in and outside his MOS) at nearly every level in the Operating Forces and the Supporting Establishment. He last served as the Director, Marine Corps Community Services, Marine Corps Air Ground Combat Center, Twentynine Palms, CA, and retired from active duty on 30 June 2018.

look at leadership through the lens of character, redemption, and resiliency.

As I thought about this article and what I wanted to write about, I determined that what separates our Corps from the other warfighting organizations is character. This character is not just made up of courage and tenacity but, more importantly, is composed of

intangible values such as faith, *esprit de corps*, and calling. These intangible values are the essence of a United States Marine. They are intricately linked to warfighting prowess and are of critical importance in the operating environment of today.

Pillars of Character

This environment is becoming increasingly complex and violent. It demands that leaders, at every rank, have the capability to make decisions at the tactical and operational level that may have influence at the strategic level. To make these decisions requires leaders to be men and women of exemplary character. Their character must be grounded in faith (moral, spiritual, and temporal) as well as a belief in their fellow Marines and leaders, and they must have a calling for service. These three pillars (faith, belief, and calling) form the core of a Marine's character and are a base for that Marine's "Well of Fortitude" (WoF).¹ The WoF nurtures and sustains a Marine through times of adversity where his character is tested, but the WoF is not bottomless. It must be refilled on occasion with conviction, *esprit de corps*, and passion.



Intangible values are the essence of a Marine's character. (Photo by Sgt Averi Coppa.)

These elements cultivate and nourish the Marine's character and give balance to actions and decisions.

It is important to spend a little time on the pillars of character. Each pillar is dependent on the other for strength and endurance. Will there be times when one pillar may be stronger than another? Of course, but over the span of time, this will change and balance will be restored. Of the three pillars, faith may be the critical link in providing strength to the others. Faith does not just refer to

this strength while conducting combat operations in Iraq. Marines moved into the attack without question and with steadfast purpose, knowing that their brother Marines were by their side to provide strength and protection like the shields of the Spartan warriors.

The final pillar is the calling. The calling is what brings each new recruit into the recruiting office. Our Marine Corps does not promise anything except hard training, danger, and the possibility of glory. This means that something

bitterness toward leadership. From this assessment, I have determined a couple of things:

- There is personal redemption in our Corps. Leaders must be able to forgive themselves for decisions or actions that turned out to be mistakes. A Marine will only be on active duty for a finite period of time; then he will go back into the civilian world. The Marine must be able to forgive himself in order to avoid having his world colored by bitterness and anger. The realization is that nobody other than the Marine, his family, and his friends, is going to care about him. The Marine Corps certainly will not care, so the Marine must be able to accept and forgive himself. This is easier said than done. I have spent many sleepless nights reviewing, analyzing, and dissecting decisions and recommendations I have made in the past; I still do it.

- There is no professional redemption in our Marine Corps. This is a bold statement, but it is the absolute truth. The Marine Corps does not forgive or forget; and it holds a grudge. This is demonstrated by the paragraph in every promotion or command slating board—guidance that tells board members not to disregard records that are less than perfect. This leads to the question: If boards are directed not to disregard less-than-perfect records, how many less-than-perfect records ever get promoted or slated for command? I do not know the answer to that question, but I imagine that the answer is close to zero in each area. I have asked this question of senior Marines who have served on boards, and the answer that I have received is this: "We do consider those types of records, but in the end, they just do not compete with the perfect record." Once a Marine has fallen (through his own mistakes or otherwise) from the "perfect path," there is no way to professionally redeem himself in the eyes of HQMC. The officer will never be given the opportunity to help junior officers avoid the pitfall through the privilege of command.

- There is atonement in personal redemption, but there is no atonement

This calling, for Marines, is the desire to serve their country and community by dedicating their lives to a higher purpose. The importance of the calling cannot be overlooked or minimized.

religion (although that is an important part); it refers to existential belief in the righteousness of purpose. For Marines, the righteousness of purpose springs from their upbringing, friends, societal influences, religious faith, and the core values of the Marine Corps. Each of these influences drives and guides Marines as they do their duties. Moreover, this righteousness of purpose is an intangible value from the Constitution and the Declaration of Independence. These documents provide the basis of purpose and add their own substance to the Marine's WoF.

In this complex world, the environment is challenging and dangerous. For a Marine to thrive in this environment, belief is essential. This belief requires the Marine to have faith that his senior leadership is also made up of men and women of exemplary character who will not squander their efforts or lives in pursuit of worthless or questionable objectives. He must further believe that the Marines to his left and right have the same level of commitment he does. An excellent example of this concept is the Spartan phalanx. Each Spartan warrior's shield provided protection to the Spartan next to him; thereby the strength of phalanx is the belief in the warrior next to you.² I have witnessed

has driven each person into the office to ask for the chance to earn the title of Marine. Over my time in our Corps, I have heard this calling referred to as the "wearing of the cloth." It is an almost spiritual calling to service synonymous with a knight called to serve during the Crusades. This calling, for Marines, is the desire to serve their country and community by dedicating their lives to a higher purpose. The importance of the calling cannot be overlooked or minimized. Each new recruit has answered a call to the "cloth" as a chance to serve their Nation and fellow man. This is a quality often disregarded in a societal environment that places individual goals and satisfaction ahead of the Nation or community.

Redemption

There is an adage that I read once that stated: "To err is human, to forgive, divine; however neither of which is Marine Corps policy." The next part of this article was the most difficult to write. It required me to conduct an assessment of not just myself but our Corps through a personal and professional lens. I wanted to determine if some of my beliefs regarding personal and professional redemption were grounded in justice and reality and not emotion and

in professional redemption. Personal atonement is always going to be in the eye of the individual Marine and how that Marine responds to the adversity presented, but professional atonement will never be achieved. I think an excellent example of this is demonstrated in the story of Task Force Violence. This unit was thrown out of Afghanistan after being falsely accused of committing a war crime during a complex ambush. In the end, this team worked to clear their names and restore their reputations through hard work and legal proceedings. These Marines have had marginal success, but they will never be able to regain their reputations or their confidence in our Marine Corps.

Resilient Character

Being a leader of Marines requires a resilient character. It is tied very closely to redemption and atonement, and it provides the source of sustain-

ment (WoF) for a warrior of character. The resiliency of a leader's character can be synonymous with the Spartan warrior's shield. It protects the warrior by deflecting or absorbing blows and attacks. I also believe that this shield is a source of strength for the warrior. It grows stronger when the WoF is full and sustains this strength. Ultimately, the sustaining force for this "shield of resiliency" is selflessness—the belief in each other, our mission, and our calling to serve. Warriors of character

do not let adversity define them. They find resilience by moving towards a goal beyond themselves, transcending pain and grief by perceiving bad times as a temporary state of affairs ... It's possible to strengthen your inner self and your belief in yourself, to define yourself as capable and competent.³

Further, the resiliency of a warrior's character is sustained through the following traits:

- The ability to use past triumphs as a guide to attack potential adversity. Remembering how adversity was confronted and subdued during past trials is incredibly powerful when being challenged by new ordeals.
- Having a strong belief in yourself and your purpose. This belief provides a potent power to strengthen resolve and righteousness of purpose.
- Marine leaders must be bold in action and demonstrate an ability to adapt; when faced with difficult situations that are fraught with adversity or peril, a Marine leader must be resolute in the determination to act and, more importantly, adapt as the situation changes. By doing this, the leader builds resilience not just in himself but in the Marines around him.
- Marines must have a sense of humor and be able to laugh at themselves. There is power in laughter as a tactic to oppose stress and strengthen resiliency.

Call For Papers

Marine Corps University and the Marine Corps Association & Foundation are pleased to announce a call for papers on a topic that is vitally important for our country and the Navy-Marine Corps Team. The contest challenges participants to think holistically about how our Nation employs naval expeditionary power now and in the future operating environment.

Essay Topic

Within the context of rapidly changing strategic, operational, and technological environments, how must the traditional concepts of naval expeditionary operations be adapted and expanded to be successful in the future?

Essays should be at least 1500 but no more than 3000 words in length. Essays are due by 15 February 2019 and must be submitted via email to Ms. Angela Anderson, Senior Editor, Marine Corps University Press at angela.anderson@usmcu.edu. Winners will be announced in April 2019.

Prizes

Overall Winning Essay

Invitation to attend the Annual Symposium of the National Museum of the Pacific War, Fredericksburg, Texas in September 2019.

Winning Essay in Each Category

- Cash award and plaque provided by the Marine Corps Association & Foundation
- Publication in *Leatherneck*, *Marine Corps Gazette*, or *Marine Corps History*
- Award presentation at a Marine Corps University Lecture Series Event

Two Honorable Mentions in Each Category with a cash award provided by the Marine Corps Association & Foundation.

Contest Categories and Eligibility

Active Duty and Reserve E5 & Below
Active Duty and Reserve E6 & Above
Active Duty and Reserve O3 & Below
Active Duty and Reserve O4 & Above





The leader's character and warrior's ethos must be resolute in the face of peril and adversity.
(Photo by Sgt Averì Coppa.)

be the most difficult part of leading Marines.

A Final Word

As I leave active duty, I am comfortable with who I am and the decisions that I have made (good and bad), and my integrity is intact. I always fostered a leadership environment and culture that promoted character, sustained courage, and encouraged my Marines to do the right thing rather than always being right (there is a difference). I have observed some of the best and worst leaders in our Corps, I have seen tremendously selfless acts, and I have witnessed narcissism at its worst. But I am hopeful for the future of our Corps.

There is a moral obligation to leadership. As leaders of Marines, we must continue to push, innovate, and inspire those Marines whom we are privileged to lead. This is a tremendous and solemn responsibility. It comes with great hazards that encompass not just physical aspects but also moral and ethical one. The consequences for failure or decision making are lethal in the physical sense and also career-wise when, incorrect decisions are made for the right reasons. The leader's character and warrior's ethos must be resolute in the face of peril and adversity. This is what the calling demands. We, as leaders, have a moral obligation to be warriors of character.

Decision making is a part of resilient character. Steven Pressfield touches on this in *The Warrior Ethos* when he states:

What he says and does can save (or cost) his own life or the lives his brothers. The nineteen year old squad leader and the twenty-three year old lieutenant often exercise more power (and in spheres of greater and more instant consequence) than their fathers, who are fifty and have been working honorable and diligently their entire lives.⁴

These decisions and recommendations come with a cost that can have devastating consequences and drain the WoF (temporarily or permanently). Imagine an officer who has to make a decision that will knowingly cost the lives of his Marines. The accomplishment of the mission requires this decision. The officer is going to have to live with the consequences of this decision for the rest of his life. Then, imagine the officer who has to make a difficult personnel decision that deals with the potential ending of another officer's career. This decision can be just as devastating as the combat decision. This calling to be a leader of Marines is a task that is filled with terrifying excitement, terrifying depression, and doubts of decisions made. Building and sustaining the resiliency of character in not just ourselves, but also in our Marines, may

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The Marine Space Support Team Concept

Tactical space operations support to the MAGTF

by Maj Joseph Horvath, Erika Teichert, & James Connolly

[As] U.S. dependence on space has increased, other actors have gained access to space-based systems and information. Governments and private sector firms have the ability to launch satellites into space at increasingly lower costs. The fusion of data from imagery, communications, and geolocation services allows motivated actors to access previously unavailable information. This 'democratization of space' has an impact on military operations and on America's ability to prevail in conflict. Many countries are purchasing satellites to support their own strategic military activities. Others believe that the ability to attack space assets offers an asymmetric advantage and as a result, are pursuing a range of anti-satellite (ASAT) weapons.¹

The MAGTF is impacted by both the adversaries' ability to attack space assets and the proliferation of capabilities they have access to in the military and commercial sectors. Despite this challenge, Marines must still be able to "shoot, move, and communicate" in order to close with and destroy our enemies, whether with a bayonet or cyberfire. Space operations support them at each step. Within the collections and targeting processes, spacebased intelligence, surveillance, and reconnaissance (ISR); environmental monitoring (EM), and position, navigation, and timing (PNT) are all used to find, fix, and track a target. When engaging that target through a lethal or non-lethal strike, PNT and satellite communications (SATCOM) are in support, along

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>>Maj Teichert is a Space Operations Officer and a Communications Officer. She is currently serving as the Space Plans Officer in HQMC Plans, Policies, and Operations. Maj Teichert has operational experience in tactical communications at the squadron and regiment levels. She served as a DARPA Service Chief Fellow, during the summer 2018.

>>>Maj Connolly has been serving as the Space Operations Officer (MOS 8866) at I MEF since summer 2016. He is a KC-130 Aircraft Commander (MOS 7557).

with ISR for battle damage assessment. When "moving," Marines are using ISR and EM to understand terrain and weather, as well as PNT for precision navigation. Finally, SATCOM and PNT are necessary to support communications in a distributed, expeditionary environment. Understanding the capabilities of the space domain and operating them whilst being contested is critical to enabling advanced maneuver warfare in the terrestrial and maritime domains. The MAGTF of today does not understand how to take full advantage of spacebased capabilities and is not prepared to operate in a denied, degraded, or disrupted space-operating environment (D3SOE). The Marine space support team concept is designed to address these areas by providing organic, scalable space operations capability in order to increase our lethality, survivability, and operational tempo.

Background and History

The DOD has been involved in

space operations since the late 1950s when the United States began launching satellites to provide SATCOM and strategic reconnaissance. Over the next few decades, space capabilities became more complex, spreading throughout our military capabilities and mission areas. Operation DESERT STORM represented a defining moment for space operations where U.S. forces capitalized on precision GPS-enabled navigation and guided munitions, SATCOM, and ISR in order to overwhelm the Iraqi forces with speed and accuracy. This was the first major engagement harnessing the power of space operations capabilities. Throughout the next two decades, the U.S. military continued to further refine these capabilities, benefitting from our overwhelming advantage within the space domain. Meanwhile, our adversaries identified this asymmetric U.S. advantage as a gap in their capabilities. While space capabilities have provided an advantage, the increasing reliance on this asset is a noticeable vulnerability.

Adversaries began to aggressively pursue space technologies and capabilities for their own benefit, while also preparing to deny, degrade, and disrupt our use of space. For this reason, space is now considered a warfighting domain and must be treated as such.

Since the early 2000s, the Marine Corps has relied heavily on Army Space Support Teams (ARSSTs) to provide support at the MEF level. These teams deploy out of the 1st Space Brigade and are comprised of both active and reserve units who provide planning, coordination, and integration of space capabilities. The reality is that while the teams provide a useful capability, their support cannot be guaranteed because they are considered a combatant commander (CCDR) asset. During Operations IRAQI FREEDOM and ENDURING FREEDOM, the Marine Corps was able to leverage these teams on a recurring basis, but there is no guarantee of future support, especially during training and exercises.

The usefulness of the ARSSTs was the impetus to permanently assigning each MEF a Marine Space Operations Officer (MOS 8866) billet in 2012.

At the operational and tactical levels of warfare, the MAGTF will be impacted by adversaries' ability to conduct maneuver warfare concepts in the space domain.

This billet is located within the fires and effects coordination center (FECC) and was established to provide permanent and organic subject matter expertise. However, there are severe limits in the ability of one individual to provide all necessary functions during 24/7 operations either in training or real-world operations. Furthermore, while the Space Operations Officer's education (a two year master's degree) is substantial, there is no training required for the billet.² The second "space MOS" is the Space Operations Staff Officer (MOS 0540). The Space Operations Staff Officer was originally designed as an additional MOS to add specific space training requirements to necessary billets, usu-

Space Operations Missions Areas (JP 3-14)	Space Situational Awareness	Space Control & Navigation Warfare	ISR, PNT, SATCOM, MW & EM (Formerly Space Force Enhancements)	Satellite Operations, Spacelift, Nuclear Detonation Detection
Warfighting Functions (Primary)	Intelligence Force Protection	Fires Force Protection	C2 Maneuver Fires Intelligence Force Protection Logistics	C2 Maneuver Logistics
Warfighting Functions (Secondary)	Fires Information	Information	Information	Force Protection

Figure 1.

ally intelligence- or communications-related, but was never intended to be a billet MOS. The courses required to receive this MOS are typically two to four weeks in length; those courses also lack the training received by ARSST personnel. Because of the ever increasing reliance on space capabilities, the introduction of tasks related to opera-

Doctrine and the Warfighting Functions

The *Marine Operating Concept* states, "Our ability to successfully execute the concept will depend greatly on the extent to which we have ... mastered the implementation of 21st century combined arms as our means to conduct maneuver warfare across all domains ..."³

In the space domain, these concepts are not limited to the strategic level of warfare. At the operational and tactical levels of warfare, the MAGTF will be impacted by adversaries' ability to conduct maneuver warfare concepts in the space domain. The MAGTF must understand the threat of the adversaries' ability to attack space systems and assets. *Joint Publication 3-14 (JP 3-14)*, *Space Operations* provides doctrine for space operations and was updated in April 2018 with significant changes to highlight the paradigm shift to space as a warfighting domain. According to *JP 3-14*:

Space operations are those operations impacting or directly utilizing space-based assets to enhance the potential of the U.S. and multinational partners. DOD space forces are the space and terrestrial systems, equipment, facilities, organizations, and personnel, or combination thereof, necessary to conduct space operations.⁴

tions in the information environment (OIE), and an increasing threat to the space domain, the current model does not provide the ability to integrate space operations across the operational phases or a capability that can "fight tonight." The MAGTF cannot continue to rely on the ARSSTs as the support is not guaranteed, the ARSST may not arrive for months after the beginning of a conflict, and Army personnel are not as familiar with MAGTF-specific operations. Additionally, the current structure of one Space Operations Officer and two minimally trained (educated) Space Operations Staff Officers at each MEF falls woefully short of meeting the increasing demand signal.

The primary support to MAGTF operations comes from the space mission areas of ISR, PNT, satellite communications, missile warning, environmental monitoring, and space control. Space situational awareness, satellite operations, space lift, and nuclear detonation detection are largely a focus of the other Services, which acquire, launch, operate, and defend the assets on-orbit. Figure 1 outlines the space operations mission areas and how they support doctrinal warfighting functions. This breadth of support exists across all seven functions to include the newest function: information. The authors and several colleagues developed this table, and though it is not doctrine, it is based on the collective insight and experiences of the Marine space operations community. It is also based largely on a figure in the draft version of *JP 3-14* that did not make the version published in early 2018. While the Marine Corps does not own or operate its own spacecraft, Marines are a significant end-user of these systems and have equity in the capabilities provided by all mission areas.

It should be noted that while the Marine Corps considers space operations a supporting function of OIE, this is only one of multiple areas in which the MAGTF leverages space capabilities. *JP 3-14* describes the relationship to information as:

providing [Joint Force Commanders] the ability to integrate the generation and preservation of friendly information, while leveraging the inherent informational aspects of all military activities to achieve the commander's objectives and attain the end state.⁵

In this way, space operations and the employment of information environment activities are mutually reinforcing. The *Marine Corps Space Operations Concept of Employment* reiterates this point very clearly in saying,

Space Operations are considered a core mission of [OIE] in full recognition they enable or support all warfighting functions, MAGTF operations, and other MAGTF capabilities beyond the scope of [OIE].⁶

A MAGTF Space Operations Officer is primarily focused on supporting the unit's ability to "shoot, move, and communicate," in concert with the other functional areas of the operations sections, with a secondary focus on supporting operations in the information environment.

- Provide situational awareness of the space domain, to include threats to spacebased systems and spacebased threats to the MAGTF. Ensure possible effects of a D3SOE are integrated into staff planning and execution. Recommend specific priority intelligence requirements and/or informa-

MSST Mission

To plan, integrate, and coordinate space-based capabilities and mission areas, across all warfighting functions, in support of the MAGTF Commander's requirements.

The Marine Space Support Team Concept

After experimentation during recent MEF exercises, the Marine Space Support Team (MSST) concept was developed to fill the requirement for organic and scalable space operations support across the MAGTF. (See MSST drawn

tion requirements to the G-2. Ensure G-6 awareness of electromagnetic interference threats and incidents.

- Plan, integrate, and coordinate U.S. Strategic Command-unique capabilities for SATCOM, PNT, ISR, navigation warfare, MW, EM, and space control capabilities into staff planning.
- Support red team capabilities involving threats to spacebased systems, specifically GPS and SATCOM jamming.

The concept maximizes use of existing structure, while minimizing new costs, as well as utilizing established and proven systems and methods already developed by the joint force. Focused on providing support at the MEF, but adaptable for MEUs or Marine forces, the MSST is simply a collaboration between the G-3 FECC space operations officer, the MEF Information Group (MIG) Space Operations Planners, as well as the G-2, G-6, and related technical specialties (cyber, electronic warfare, and special technical operations). The G-3 FECC and MIG will maintain control of space operations officers within their respective staffs. Marine Forces, U.S. Strategic Command (MARFORSTRAT) has an active duty space operations officer along with its Reserve Individual Mobile Augmentee Detachment of space operations planners. These Marines are trained to support MEF-level MAGTFs and the MSST concept and may provide reach back support and coordination with

The concept maximizes use of existing structure ...

box.) The proposed mission statement for the MSST is to plan, integrate, and coordinate spacebased capabilities across all warfighting functions, in support of the MAGTF commander's requirements. Additional requirements and tasks are as follows (not inclusive):

- Commander's primary advisor on space operations.
- Develop the appropriate space operations portion of a base operations order or applicable annex. Develop space operational requirements and the space estimate.
- Support a unit's staff with space operations expertise. Provide space operations analysis and specific products to the staff. Support subordinate elements that do not have embedded space operations officers to ensure proper consideration of space capabilities and operations to the unit.

Strategic Command and other Service component commands, to include the Army's 1st Space Brigade and the Department of the Navy's Naval Network Warfare Command. The MARFORSTRAT space operations planners may also provide augmentation to the MSST when requested for major operations or exercises.

With appropriate training and systems, the MSST may largely replicate the capabilities of an ARSST, as well as organically support the MEF and provide the fight tonight capability that an ARSST cannot. The MSST can assist with training the MAGTF on advanced threat scenarios such as a GPS-degraded environment. Additionally, with the assistance of the 1st Space Brigade and MARFORSTRAT, a MSST certification checklist will develop based on current tactics, techniques, and procedures used by the ARSSTs. The checklist is used on an annual basis to certify the ability of the team to conduct its mission. This certification could be added as a Defense Readiness Reporting System (DRRS) reportable item for the MEF to show the MSST is mission capable.

As identified earlier, the current space operations MOS structure of 8866/0540 falls short of meeting the MAGTF's space needs partly because of a lack of training on the necessary software and tools required. While the MSST structure may ensure collaboration between these personnel, without additional training the Marine Corps will still fall short of the requirement. The needs of the MAGTF (and thus the MSST) necessitate the creation of an intermediate MOS (tentatively being referred to as MOS 0545, Space Operations Planner). The new MOS will require an additional level of training over and above the requirement for the space operations staff officer in order to fulfill the needs of the MIGs. Whereas the original 0540 MOS will continue to be used to add basic space knowledge to some billets, the 0545 MOS will specifically prepare billet holders to utilize the systems and tools necessary to provide tactical space operations planning and support to the operating forces. This additional MOS has precedence, as it will mirror the

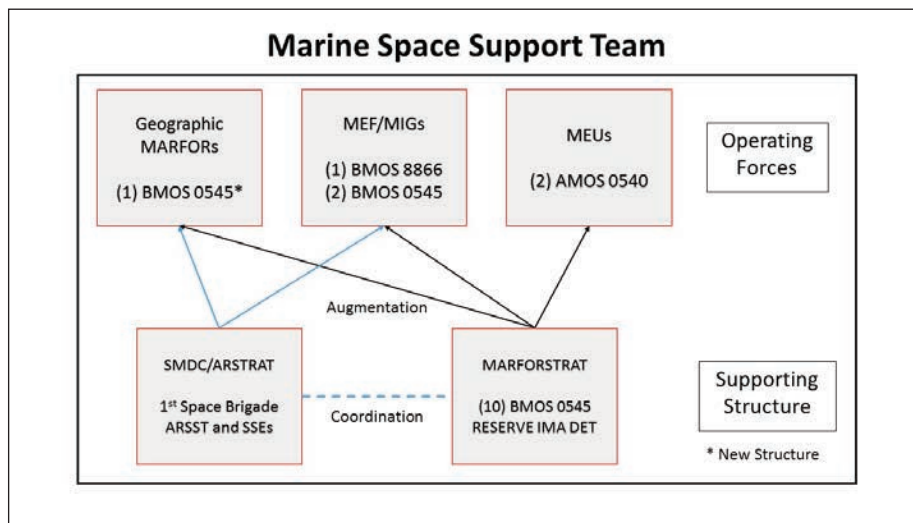


Figure 2.

information operations community, which has a basic staff officer level, an advanced planner level, and a master's degree level (MOSs 0510/0550/8834). Specific courses for the new MOS have been identified and are currently used to train the MARFORSTRAT Reserve space operations planners to validate the requirements. These courses include the Army's Tactical Space Operators Course and the Air Force's Space Warfighter Preparatory Course.

A final aspect of the concept is the necessary systems and equipment to support the MSST capability. The ARSST teams utilize a specific space operations software package associated with the Distributed Common Ground System-Army system. This package includes the software toolsets to accomplish the analysis and product development required for the MSST mission. HQMC is working to integrate this toolset into a future system that will be used by the MEF and the MIG. This software, combined with the appropriate training and networks, constitutes the basic equipment required. Additional capacity will be gained from a stand-alone SATCOM capability and a dedicated commercial imagery capability. Johns Hopkins University Applied Physics Laboratory is concluding a study, sponsored by Deputy Commandant, Plans, Policies, and Operations (PP&O), that is documenting the MAGTF's reliance on spacebased

capabilities. As part of the study output, Johns Hopkins University Applied Physics Laboratory is modifying the Dagger dependency-modeling tool developed in part for Marine Forces, U.S. Cyber Command (MARFORCYBER). This tool will allow space operations officers to conduct advanced planning for GPS- and SATCOM-degraded environments, along with other threats to spacebased capabilities. Furthermore, MAGTF Staff Training Program can use the tool as a way to give realistic feedback to the training audience for master scenario event list injects during exercises. The additional structure, training, and equipment represent a small investment for tremendous and necessary capability to support MAGTF operations.

Space Force

On 9 August 2018, the *Final Report on Organizational and Management Structure for the National Security Space Components of the Department of Defense* was delivered to Congress from the Secretary of Defense. This report recommended the creation of a Space Command and highlighted a number of new organizations as well as a plan to strengthen and focus the DOD approach to space as a warfighting domain. On 13 August, the President signed the *FY 2019 National Defense Authorization Act (NDAA)*, which stated,

[W]ith the advice and assistance of the Chairman of the Joint Chiefs of Staff, the President, through the Secretary of Defense, shall establish under the United States Strategic Command a subordinate unified command to be known as the United States Space Command ... for carrying out joint space warfighting operations.”⁷

Placing Marines who understand warfighter needs and the reliance on space-capabilities by the MAGTF into this joint force will provide a necessary level of support and influence within the joint space community.

Way Forward

The MSST concept was initially briefed to the Space Operations Working Group in May 2018 and recommended for experimentation by the MEF/MIGs and Marine forces in attendance. Over the course of this year, this concept will provide a framework

for experimentation at major exercises to refine and validate the concept with the end goal of formal adoption of the MSST concept. With a minimal cost for training and equipment, and no additional structure necessary for implementing the MSST up to the MEF level, we believe the Marine Corps can drastically increase its level of preparedness for the next war, conflict, or contested action. The MAGTF must take full advantage of spacebased capabilities in order to increase lethality and survivability, and the MSST is an excellent start to creating organic support to accomplish these goals.

Notes

1. White House, *National Security Strategy of the United States of America*, (Washington, DC: December 2017).

2. The Space Operations Officer, MOS 8866, is an analyst MOS, produced at the Naval Postgraduate School via the Special Education Program. The requirement for the billet is education, not training; most MOSs are received at the conclusion of training where a Marine is required to demonstrate the capability to “do” a skill vice “know” or “analyze.”

3. Headquarters Marine Corps, *Marine Corps Operating Concept*, (Washington, DC: September 2016).

4. Joint Staff, *Joint Publication 3-14, Space Operations*, (Washington, DC: 2018).

5. Ibid.

6. Headquarters Marine Corps, *The Marine Corps Space Operations Concept of Employment*, (Washington, DC: 2017).

7. Congress of the United States, *2019 National Defense Authorization Act, Title XVI, Sec. 1601* (Washington, DC: 2018).



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 in June and notify all entrants as to the outcome shortly thereafter. Multiple entries are allowed; however, only one entry will receive an award.

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Stilwell and Mountbatten in Burma

reviewed by Maj Skip Crawley, USMCR(Ret)

Even the closest allies will always put their national interests ahead of the interests of the coalition.¹ This principle permeates Jonathan Templin Ritter's *Stilwell and Mountbatten in Burma: Allies at War, 1943–1944*, a recently published book that chronicles one year in World War II, during which Western Allies, the United States and Great Britain, conducted combat operations in the most remote and isolated theaters of the war.

Mention the China-Burma-India (CBI) Theater² and the only thing most Americans know is Claire Chennault's American Volunteer Group (AVG), famously known as the "Flying Tigers" for the shark's teeth painted on the nose of their P-40 Warhawk fighters. Though only active for the first six months of the war, the AVG racked up a very impressive and lopsided score against the Japanese. The "Flying Tigers" were one of the few bright spots for the American public in the first dark months of World War II.³ Mention the Southeast Asia Command (SEAC)⁴ and the only thing most Americans know about this is in reference to the film *The Bridge on the River Kwai* about Allied POWs building a bridge for their Japanese captors.

While the CBI Theater and SEAC are not nearly as well-known as the other World War II theaters, *Stilwell and Mountbatten in Burma* provides a case study of allies working together to defeat the common enemy while simultaneously pursuing their own national interests.

>Maj Crawley is the M4L (Marine 4 Life) Central Region Network Coordinator, HQMC M4L Outreach Section, Marine and Family Program Division.

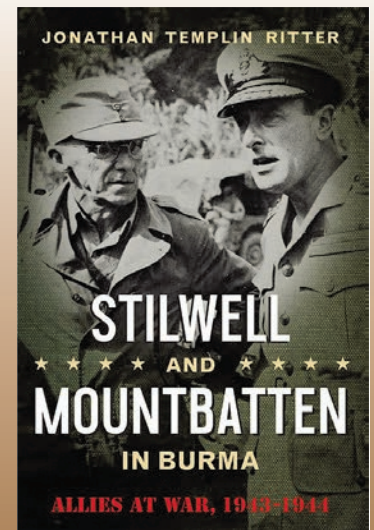
British And American Strategy

One quotation succinctly sums up the British and American strategic views of operations in India, Burma, and China:

The personality clashes reflected different Anglo-American global perceptions. Almost all British politicians and generals ... regarded Burma as an expensive waste of time and Chiang was a waste of space. Churchill himself intensely disliked the idea of a campaign in north Burma ... Meanwhile FDR remained adamant in his support for Chiang and had no interest in diversions to Singapore and Hong Kong, which he saw merely as Churchill's attempt to regain the British Empire.⁵

The personality clashes reflected different Anglo-American global perceptions.

The overriding strategic objective of Britain in World War II was to defeat the Axis *and* restore their empire. The overriding strategic objective of the United States was to defeat the Axis *and* make a new world order based



STILWELL AND MOUNTBATTEN IN BURMA: Allies at War, 1943–1944. By Jonathan Templin Ritter. Denton, TX: University of North Texas Press, 2017. ISBN-13: 978-1574416749, 288 pp.

\$29.95

upon the United Nations policed by the four Great Powers—America, Britain, the USSR, and China.⁶

The British strategy in SEAC:

To get back to Singapore by amphibious operations once they had built up their forces.... 'Churchill's only real interest in the East was Singapore, regaining which he viewed as vital for the prestige of the British Empire. He was ... in favour of bypassing Burma, which he saw as being of advantage only to China.'⁷

The American strategy in CBI was, "To support China through India, which required retaking at least North Burma in order to re-establish a land route."⁸

As Ritter explains, the British were desperate to retake Singapore by military means *prior* to the end of the war in order to restore their prestige in the eyes of Asians. To that end, Mountbatten and the British were committed to a "southward, seaward thrust," conducting a series of amphibious landings along the Bay

of Bengal littoral leading to Malaya, whence they would then retake Singapore. In the British strategic vision, China was of no importance, and the American desire to make China a “Great Power equal to America, Britain and the USSR was driven by American ‘fantasies about China.’”⁹

American strategy was to make China an active participant in the war by providing air bases in southeastern China for B-29 Superfortresses to bomb Japan’s cities and leveraging China’s immense manpower to fight the Japanese Army in China.¹⁰ The key to accomplishing these objectives was to “reestablish a land route from India through North Burma into Southwest China,” (Ledo/Burma Road) broken off since the Japanese occupied Burma in 1942. Re-establishing a ground link with China would allow American supplies to freely flow to China to enable both air and ground operations and facilitate

the American objective of making China a Great Power.

What was the outcome of this strategic disagreement? In the end, the American strategic view prevailed because we provided most of the resources in theater and, by 1944, had become the senior partner in our alliance with Great Britain. A land route to China was re-established in early 1945.

While the differing views of their respective countries drove strategy, personal relationships mattered as well. Who were these two men?

Mountbatten and Stilwell

The Supreme Allied Commander of SEAC, Lord Louis Mountbatten, was a member of the Royal family and Queen Victoria’s great-grandson. Mountbatten experienced a “meteoric elevation, from destroyer flotilla commander in 1941 to British [C]hief of [C]ombined [O]perations

and then to SEAC [in 1943].”¹¹ As Chief of Combined Operations from 1941– 1943, Mountbatten was simultaneously a vice admiral in the Royal Navy, a lieutenant general in the British Army, *and* an air marshal in the Royal Air Force. Mountbatten’s rapid ascension was largely fueled by “Churchill’s admiration” for him. Churchill notwithstanding, many thought Mountbatten was “a poseur with a streak of vulgarity, promoted far beyond his talents on the strength of fluency, film-star good looks, and his relationship to the royal family.”¹² One author theorized that Mountbatten was given command of SEAC because he was “simpleminded”¹³ enough to believe he was in charge of a theater, when in reality he was only a famous “figurehead” to give British soldiers the impression that what they were doing in SEAC was important to the war and that their government had not forgotten them.¹⁴

At the time of Mountbatten's appointment as Supreme Allied Commander of SEAC, Joseph W. "Vinegar Joe" Stilwell had been an Army officer for 39 years and, since 1942, had been triple-hatted as the Commanding General of CBI, Chief of Staff to Generalissimo Chiang Kai-shek, and administrator of U.S. lend lease supplies to China. According to the author, "Stilwell was an old China hand, spoke the language well, and both [GEN George C.] Marshall and Secretary of War Henry Stimson wanted him to go there." Shortly after

could have been better edited to be more concise. Ritter also sometimes fails to put information in proper chronological order. For example, Ritter quotes a Chiang Kai-shek biographer that Stilwell was the best corps commander in the U.S. Army—and then states that GEN Marshall, Army Chief of Staff, appointed Stilwell to the command of III Corps based on his success training the 7th Infantry Division. The narrative should be reversed.

Nevertheless, I recommend *Stilwell and Mountbatten in Burma: Allies at*

4. The Allied Theater command composed of British, American, Indian, Chinese, and other forces.

5. Quoted in *Stilwell and Mountbatten in Burma* from Frank McLynn. *The Burma Campaign: Disaster into Triumph, 1942–1945*, (New Haven, CT: Yale University Press, 2011).

6. For decades prior to World War II, world politics and diplomacy centered on the Great Powers—Britain, France, Prussia/Germany, Russia, and, until World War I, Austria-Hungary. While recognized for its great economic potential, the United States was not considered one of the Great Powers as far as dictating world events. During World War II, U.S. policy, spearheaded by President Franklin D. Roosevelt, was to make China one of the Great Powers. In reality, that was a chimera based upon the romantic vision many Americans had toward China prior to, and during, World War II.

7. Quoted in *Stilwell and Mountbatten in Burma* from McLynn, *Burma Campaign*.

8. Ibid.

9. Given Chaing Kai-shek's desire to fight the Communists more than the Japanese, the corruption that permeated the Kuomintang, and how quickly China fell to the Communists despite America assistance, this reviewer agrees with the British view of China.

10. Readers of the *Gazette* require no reminders of how bloody and brutal the battles in the South Pacific and Central Pacific were. However, American forces had engaged only a relatively small fraction of total Japanese Army strength; most of which was in China. American strategists were concerned that the Japanese might transfer their army from China back to the home islands. In the mind of many American strategists, China was to serve the same role in the Pacific as the Soviet Union served for the Western Allies in the Europe, fighting the majority of the enemy's army. Interestingly enough, Ritter posits a potential reversal of this scenario where Japanese forces might have retained control of China if the Home Islands fell.

11. Max Hastings, *Retribution: The Battle for Japan, 1944–1945*, (New York: Random House, Inc., 2007).

12. Ibid.

13. Ibid.

14. Ibid.

... I recommend *Stilwell and Mountbatten in Burma: Allies at War, 1943-1944* for anyone who is interested in an overview of the SEAC/CBI Theater ...

taking command of CBI, Stilwell, "in poor health with jaundice, as well as being blind in his left eye," led his staff on a 140-mile trek in 14 days "out of Burma [and] into India" when he could have flown out. But living up to his moniker, Stilwell eventually clashed with Mountbatten, Chiang Kai-shek, and Chennault. This resulted in Stilwell being recalled to America in 1944.

Both men failed to accomplish their country's strategic objective. Mountbatten failed "to restore imperial prestige" and Stilwell could not make "American fantasies" about China come true. Post-war, the British lost the great majority of their empire and China fell to the communists. But in fairness to both military leaders, the SEAC/CBI Theater presented such intractable difficulties that it is unlikely anyone could have overcome the problems in that part of the world. In short, the problems in this theater extended well "beyond the personalities of Stilwell and Mountbatten."

Conclusion

There is one problem with *Stilwell and Mountbatten in Burma: Allies at War, 1943–1944*. The content is solid and informative, but the book

War, 1943–1944 for anyone who is interested in an overview of the SEAC/CBI Theater and/or an illustration of how even the closest allies still pursue their own national interests. Ritter does an excellent job of illustrating that in even in the best alliances, such as the one between the British and Americans, nations who work together for the good of a coalition always have one eye on their national interests. This was true in China, Burma, and India during World War II; it was true throughout World War II in the other combat theaters where America and Britain fought together; and it is true today as we fight along our allies.

Notes

1. Charles J. Dick, *Decisive and Indecisive Military Operations, Volume 1: From Victory to Stalemate: The Western Front, Summer 1944*, (Lawrence, KS: University Press of Kansas, 2016).

2. The American Theater command.

3. The AVG became the 23rd Fighter Group of the United States Army Air Forces, which still exists today as a component of the U.S. Air Force.



Soldiers and Civilization

reviewed by Maj Timothy Heck, USMCR

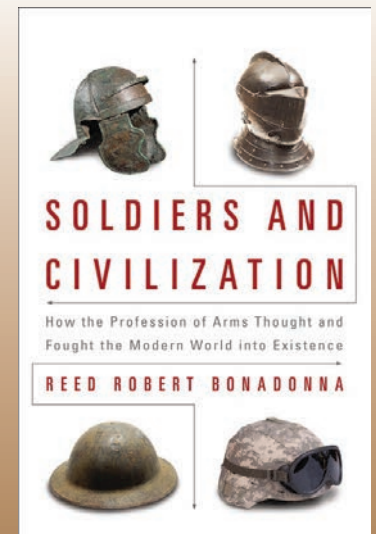
Reed Bonadonna's *Soldiers and Civilization: How the Profession of Arms Thought and Fought the Modern World into Existence* is an expansive survey of the impact of soldiers on Western civilization. His thesis, "the soldier has played a vital, inescapable, and neglected role in the foundation of human civilization, and must have a part in its future survival," allows for the analysis of the cultural, strategic, operational, tactical, and political role of the soldier. While the study of the professional soldier's place in society is not a new area for academic exploration, the role of the soldier in civilizing society is a less obvious and unexplored topic.¹ As such, *Soldiers and Civilization* offers a fresh perspective of our profession's place in the development of Western civil society from Ancient Greece to the present.

Bonadonna, a retired Marine Colonel and previously the Director of Ethics and Character Development at the U.S. Merchant Marine Academy, draws from a variety of sources across multiple periods of Western civilization to support his thesis. He

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tion, leadership, trust, and character. With these elements at the core, *Soldiers and Civilization* takes readers on a chronological examination of Western civilization's conflicts and the development of professional militaries with an eye toward the present.

The book's first quarter covers the early Western civilizations of the Greeks, the Romans, and the Macedonians. *Soldiers and Civilization* reminds the reader that familiar historical figures, such as Alexander the Great and Julius Caesar, were not solely emperors or soldiers, they were both. Furthermore, they embodied the idealized virtues of their times. Cycles of peace and war shifted the soldier's place in society. Armies enjoying long periods of peace often turned to civic obligations such as,



SOLDIERS AND CIVILIZATION:
How the Profession of Arms Thought and Fought the Modern World into Existence. By Reed Robert Bonadonna. Annapolis, MD: Naval Institute Press, 2017. ISBN-13: 978-1682470671, 352 pp.

\$35.00

The Dark Ages' soldiers were characterized by "a contradictory ... mixture of the pious and the murderous, the faithful and the treacherous, the skillful ... and the maladroit and undependable."

It was during the Dark Ages where feudal knights, Viking raiders, the Franks, and the Holy Roman Empire emerged with different understandings of military professionalism and the role of soldiers in society. These soldiers and their martial societies waxed and waned, as had their predecessors. Bonadonna claims that the lasting impact of the era comes from the influence of early Christian pacifism and concerns about just war, a concept that continues to be brought into the forefront of public debate as recent as the 2003 American-led invasion of Iraq.

Starting with chapter five, *Soldiers and Civilization* hits a more expansive and cogent analysis of the modern military. The book is broadly bisected by the era Michael Roberts termed the

Soldiers and Civilization offers a fresh perspective of our profession's place in the development of Western civil society from Ancient Greece to the present.

claims military professionals have in common eight elements that separate professional armies from being merely an armed mob: knowledge, cognition, beliefs, compensations, communica-

"construction, cultivation, tax collecting, and policing," which eroded martial spirit and vigor. That shifting focus hastened the collapse of the Roman Empire to the barbarians and ushered in the Dark Ages.

“military revolution.”² Robert’s thesis claims that between 1560 and 1660, a revolution in military technology led to similar revolutions in tactics that, as Bonadonna writes, changed society. Bonadonna pulls together a variety of sources into a cohesive explanation of those societal and military changes. The majority of the book’s content derives from the “military revolution” of the early modern period.

The growth of military bureaucracies in the early modern period is central to the book’s argument. This growth sparked the development of a military akin to what we possess today

the half-century of conflict ending in 1945, serve to remind the reader that war has a cultural, political, and societal impact far beyond the battlefield.

Unfortunately, Bonadonna’s thesis is entirely Western-focused. By omitting the military traditions outside of Western and Central Europe, and their colonial offshoots in North America, *Soldiers and Civilization* is incomplete. As he states:

What has often distinguished militaries with a claim to professionalism from mere groups of marauders or bands of warriors has been the for-

fails to use the larger historical record expansive topics.³

Bonadonna demonstrates that as the eight elements of a professional soldier underwent growth, refinement, and expansion, so too did Western society. Attempting to write an overarching survey covering from Alexander the Great to America’s war in Afghanistan is a daunting task. *Soldier and Civilization* synthesizes the eight elements of a professional military and demonstrates how those have changed over time and the societal changes that followed. Bonadonna has written an easy-to-read and well-sourced work in support of his geographically limited thesis that the soldier has always helped to build Western society.

The first Duke of Wellington is quoted as writing that, “the need to answer correspondence from ‘gentlemen quill-driving in your lordship’s office’ was keeping him from ‘the serious business of campaigning.’”

and serves as a grounding point for the latter half of the book. The military and bureaucrats were no longer subject to a monarch but rather an embryonic state. This was not an easy transition for some soldiers in the field. The first Duke of Wellington is quoted as writing that, “the need to answer correspondence from ‘gentlemen quill-driving in your lordship’s office’ was keeping him from ‘the serious business of campaigning.’”

The book’s explanation of the military’s impact on society continues through the late modern period (approximately 1700) to the present. The Enlightenment with its expansion of education and knowledge accompanied changes in technology and tactics. The changes brought about by Napoleon are particularly well described. Sections on the American Civil War and theorists like Alfred Thayer Mahan show the American profession of arms in a more universal context, framing those events and thinkers within global trends and precedent. Examples from the Napoleonic era, wars of colonial expansion, wars of independence, and

mer’s emphasis on the need for both self-control and external controls, for character, discipline, and organization. Military professions of this kind have arisen mostly in the West ... The West has been an important repository of the idea of civilization, of settled and stable societies that provide individuals with a reasonable chance at a high quality of life, including self-expression and the enjoyment of leisure.

There exist enough examples in Western society that prove it to be far from settled, stable, and disciplined. Bonadonna ignores the brutal colonial legacies of Europe’s professional militaries in Africa, Asia, and elsewhere. The cruelty of American slavery and the savagery of the war to abolish or defend that practice should remind us that no matter how professional an army is, war is inherently a political act. The chaos of the Spanish Civil War or bloodlust of the French Revolution serve as counterpoints to the book’s underpinning that Western civilization is inherently disciplined or controlled. By limiting his evidence to Western examples, Bonadonna

Notes

1. For more on the role of soldiers in society, see Samuel Huntington’s classic *The Soldier and the State: The Theory and Politics of Civil-Military Relations*, (Cambridge, MA: Belknap Press, 1981).

2. See Michael Roberts, “The Military Revolution, 1560–1660,” in Clifford J. Rogers, Editor, *The Military Revolution Debate: Readings on the Military Transformation of Early Modern Europe*, (Boulder, CO: Westview Press, 1995).

3. Jeremy Black’s *Insurgency and Counterinsurgency: A Global History*, (Lanham, MD: Rowman & Littlefield Publishers, 2016) is an example of using a truly global record set to explain militaries, wars, and their impact on societies.



Sea Power

reviewed by 1stLt Walker D. Mills

S*ea Power: The History and Geopolitics of the World's Oceans* is a new book by ADM James Stavridis, USN (Ret) about his experiences on the world's oceans as a naval officer and the currents of history running through them. ADM Stavridis is one of the largest figures in the U.S. Navy since the Second World War. A Naval Academy graduate, Stavridis was a surface warfare officer for over 35 years. His distinguished career included prestigious leadership awards from military and civilian groups in addition to master's and doctorate degrees from Tufts University where he has worked as Dean of the Fletcher School of Law and Diplomacy since 2013. Stavridis finished his career as commander of U.S. Southern Command and then as Supreme Allied Commander Europe. *Sea Power* is the eighth book he has either authored or co-authored.

Stavridis opens with a passage from Shakespeare's *Tempest* and argues that all the world's oceans are interconnected. Obviously, in the physical sense, but also in their history

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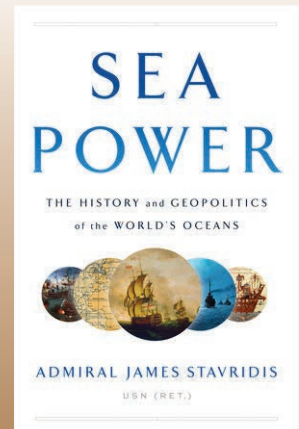
crime, mostly piracy, and finishes with "America and the Oceans: A Naval Strategy for the 21st Century," a strategic blueprint for America's way ahead in the global seas.

Overall, the book is a disappointment. It suffers from delusions of grandeur, with comparisons to Alfred Thayer Mahan's *The Influence of Sea Power Upon History* on the dust jacket that *Sea Power* simply cannot live up to. Stavridis writes easily and fluidly, but the book is oriented more on himself than history. Most chapters open with anecdotes about Stavridis's time on ship and footnotes are scarce, sometimes referencing material publicly available on the Internet. The material does much to convey a sense of what it is like to be at sea and imbue the reader with a great appreciation of his career trajectory, but little to complement the history. The history in

The strongest portion of the book is the final chapter, where Stavridis outlines not just a way ahead for the Navy but also a comprehensive strategic vision for America and the sea.

and geopolitics; it would be futile to look at only one ocean in isolation from the others and the greater network that they create. The book is organized along geographic lines, with a chapter on each ocean and the Mediterranean, the Caribbean, and the South China Seas. The book also includes a chapter on maritime

the book is weak at best—usually not more than a cursory overview of a few important events that fit loosely into an overarching narrative. Ultimately, Stavridis' history is not much deeper than what a student could expect from a high school or introductory college class, certainly interesting and sound, but for any serious student of naval or



SEA POWER: The History and Geopolitics of the World's Oceans. By James Stavridis. New York, NY: Penguin, 2017. ISBN 9780735220591. Price \$28.00 (Hardcover) 363 Pages with color illustration

global history, it leaves something to be desired.

The strongest portion of the book is the final chapter, where Stavridis outlines not just a way ahead for the Navy but also a comprehensive strategic vision for America and the sea. Stavridis envisions a Navy that relies on close cooperation with international partners and other U.S. agencies like the Coast Guard and U.S. Geological Service at all levels and is supported by bases in key strategic areas like the South China Sea and the Arctic. Stavridis also makes a strong case for an increased focus on the Arctic, which has been one of his foci at Tufts University. This will be much less familiar of a region for most readers. Clearly in his case is also the assertion that the United States has fallen sharply behind other nations in the race for the Arctic, most notably Russia. In one table, he notes that the United States has three ice breakers, important ships to the arctic region, compared to over 30 owned and operated by Russia, and the same number of icebreakers operated by China—a country far from the arctic and one ship less than

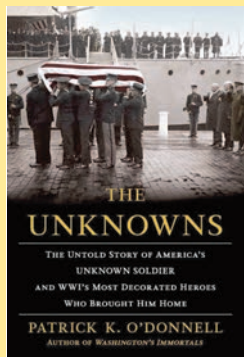
Denmark. It then comes as no surprise when he later advocates for increasing the number of icebreakers in the United States despite not being an advocate for a significantly larger Navy overall. In fact, Stavridis quotes President Barack H. Obama's famous retort to Governor George Romney in the 2012 Presidential debate when Obama said sarcastically that the Army needed a lot fewer bayonets and horses than it used to in response to Romney's calls for bringing the number of ships in the Navy up to 350.

Sea Power is entertaining and a fine introduction to naval history and sea power; however, it falls short of a serious treatise on the topic or offering novel insight on the history. Stavridis relies on his own experiences as a naval officer to drive much of the narrative, which while not uninteresting, is not how the book is marketed. The most valuable insight in the book is the repeated quote, "The mark of a great ship handler is not getting into a situation that requires great ship handling skills," which he attributes

to ADM Ernest King. Often paired with anecdotes about banging his ship on the pier as a young officer it also offers a larger metaphor for Stavridis's overarching promotion of "smart power" where alliances, joint-operations, development, and humanitarian air are championed as ways to limit the need for conflict or "hard power."



For Further Reading



THE UNKNOWNNS: The Untold Story of America's Unknown Soldier and WW I's Most Decorated Heroes Who Brought Him Home. By Patrick K. O'Donnell. New York: Atlantic Monthly Press, 2018. ISBN-13: 978-0802128331, 288 pp. \$27.00

reviewed by Maj Skip Crawley, USMCR(Ret)

Mention the "unknown soldier" and Americans think of the marble sarcophagus which serves as the Tomb of the Unknown Soldier at Arlington Cemetery; soldiers of the U.S. 3rd Infantry, "The Old Guard," marching back and forth guarding the Tomb; and Presidents laying wreaths at the Tomb on Memorial Day.

However, few are aware of the story of the unknown soldier. *The Unknowns: The Untold Story of America's Unknown Soldier and WW I's Most Decorated Heroes Who Brought Him Home* by Patrick K. O'Donnell tells the story of the original unknown soldier as well as the experiences of the eight body bearers, all genuine heroes of World War I, who brought him home from France to Arlington Cemetery on Armistice Day 1921.

The idea of an American unknown soldier got off to a difficult start, "Army Chief of Staff General Peyton C. March initially thought it was a terrible idea and dismissed it out of hand." His superior, Secretary of War, Newton D. Baker, likewise did not think an unknown soldier was necessary because he "believed that all of the unknown dead would eventually be identified." But after France and Britain entombed their unknown soldiers on Armistice Day 1920, support grew in America for an unknown soldier memorial.

At one point, the Tomb of the Unknown Soldier was to be in the U.S. Capitol, but ultimately, Congress decided on "the construction of a simple tomb for an unknown soldier at Arlington." The iconic seventy-nine ton marble sarcophagus was not added until the early 1930s. GEN John Pershing personally chose eight servicemen, all of who had "exceptional records" to be the body bearers to bring the unknown soldier home.

After four unidentified soldiers were exhumed from U.S. military cemeteries in France, Sgt Edward Younger, "a combat veteran who had participated in the heart of all the AEF's major battles" selected one of the unidentified soldiers to be the unknown soldier. The unknown soldier then was brought home in the USS *Olympia* (C-6) of Spanish-American War fame. The body bearers took the unknown soldier to the Capitol to lie in state before he was interred on Armistice Day in Arlington Cemetery.

Who were the eight body bearers Pershing chose? An Army Sergeant whom Pershing considered to be "the outstanding soldier of the AEF," a Marine who fought at Belleau Wood and was the recipient of "both the Navy Medal of Honor and the Army Medal of Honor," a Chief Water Tender "who sacrificed his body to save his ship," a Chief Gunner's Mate who was a POW on a German U-boat after his ship was sunk, a cavalryman at the Meuse-Argonne, a member of an eight-inch howitzer crew, a "wire cutting" combat engineer at St. Mihiel, and a field artilleryman from the Battle of Soissons.

We do not know who the unknown soldier is. But thanks to *The Unknowns*, all Americans can now know the story of that anonymous soldier and the men who brought him home.

Tactical Decision Game 01-19

Bermside Ambush

by 1stLt Michael A. Hanson

Situation

You are a Squad Leader in Company B, 1st Battalion, 7th Marine Regiment. Your squad is conducting a patrol moving north, parallel to a road situated on a berm about one and a half meters above ground. The terrain surrounding the berm is flat with multiple scattered rock piles about one meter tall. Your squad takes fire from a light machine gun across the road about 100 meters ahead. As you instinctively lunge for cover, you see an enemy infantry squad maneuvering toward you from behind the berm on the opposite side of the road. They begin throwing hand grenades across the road at your Marines. The first few explode far enough away that none of your Marines are hit, but the grenades are getting closer. You hear enemy voices.

You have a thirteen Marine rifle squad with a standard complement of M203 grenades, M67 fragmentation grenades, and one AT4 Rocket. What do you do?

Requirements

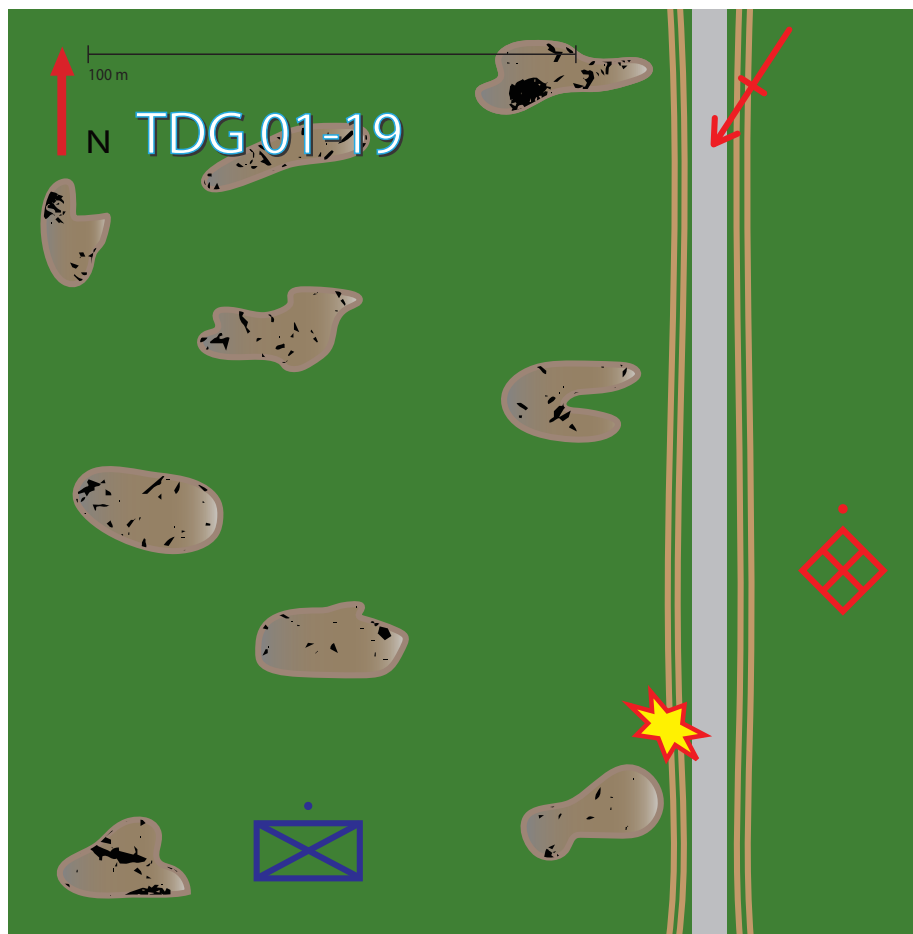
What commands do you give your squad in your frag order?

Provide a sketch depicting the actions you expect your fire teams to take as a result of your frag order.

Submit your solution by email to gazette@mca-marines.org or to the *Marine Corps Gazette*, TDG 01-19, Box 1775, Quantico, VA, 22134. The *Gazette* will publish solutions in an upcoming issue.

>1stLt Hanson is Coyote 3K, TTECG, Twentynine Palms CA.

>Author's Note: This scenario is adapted from one described in *Colder Than Hell: A Marine Rifle Company At Chosin Reservoir*, by Joseph Owen. It has been updated to reflect current rifle squad table of organization and equipment. The terrain has also been modified for simplicity.



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The Board of Governors of the Marine Corps Association & Foundation has given the authority to approve manuscripts for publication to the editor and the Editorial Advisory Panel. Editorial Advisory Panel members are listed on the *Gazette's* masthead in each issue. The panel, which normally meets as required, represents a cross section of Marines by professional interest, experience, age, rank, and gender. The panel judges all writing contests. A simple majority rules in its decisions. Material submitted for publication is accepted or rejected based on the assessment of the editor. The *Gazette* welcomes material in the following categories:

- **Commentary on Published Material:** The best commentary can be made at the end of the article on the online version of the *Gazette* at <https://www.mca-marines.org/gazette>. Comments can also normally appear as letters (see below) 3 months after published material. BE BRIEF.
- **Letters:** Limit to 300 words or less and DOUBLE SPACE. Email submissions to gazette@mca-marines.org are preferred. As in most magazines, letters to the editor are an important clue as to how well or poorly ideas are being received. Letters are an excellent way to correct factual mistakes, reinforce ideas, outline opposing points of view, identify problems, and suggest factors or important considerations that have been overlooked in previous *Gazette* articles. The best letters are sharply focused on one or two specific points.
- **Feature Articles:** Normally 2,000 to 5,000 words, dealing with topics of major significance. Manuscripts should be DOUBLE SPACED. Ideas must be backed up by hard facts. Evidence must be presented to support logical conclusions. In the case of articles that criticize, constructive suggestions are sought. Footnotes are not required except for direct quotations, but a list of any source materials used is helpful. Use the *Chicago Manual of Style* for all citations.
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- **Book Reviews:** Prefer 300 to 750 words and DOUBLE SPACED. Book reviews should answer the question: "This book is worth a Marine's time to read because..." Please be sure to include the book's author, publisher (including city), year of publication, number of pages, and the cost of the book.

Timeline: The average time between an article's acceptance for publication and printing of that article is six months. In some cases the wait can be longer, based on aligning the subject of the article to monthly themes in the magazine and space available. In some cases where accelerated publication serves the interests of the Corps, an article may be moved up in the publication queue. Normally, requirements for PME or Advocacy/Advisory Groups from senior-level Marine Corps leadership (Commanding General, Deputy Commandant) justifies accelerated publication.

Writing Tips: The best advice is to write the way you speak, and then have someone else read your first draft for clarity. Write to a broad audience: *Gazette* readers are active and veteran Marines of all ranks and friends of the Corps. Start with a thesis statement, and put the main idea up front. Then organize your thoughts and introduce facts and validated assumptions that support (prove) your thesis. Cut out excess words. Short is better than long. Avoid abbreviations and acronyms as much as possible.

Submissions: Authors are encouraged to email articles to gazette@mca-marines.org. Save in Microsoft Word format, DOUBLE SPACED, Times New Roman font, 12 point, and send as an attachment. **Photographs and illustrations must be in high resolution TIFF, JPG, or EPS format (300dpi) and not embedded in the Word Document. Please attach photos and illustrations separately.** (You may indicate in the text of the article where the illustrations are to be placed.) Include the author's full name, mailing address, telephone number, and email addresses—both military and commercial if available. Submissions may also be sent via regular mail. Include your article saved on a CD along with a printed copy. Mail to: *Marine Corps Gazette*, Box 1775, Quantico, VA 22134. Please follow the same instructions for format, photographs, and contact information as above when submitting by mail. Any queries may be directed to the editorial staff by calling 800-336-0291, ext. 180.



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