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Editor, Col John A. Keenan, USMC(Ret)

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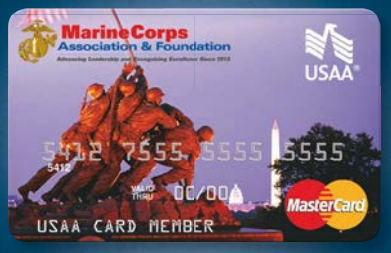

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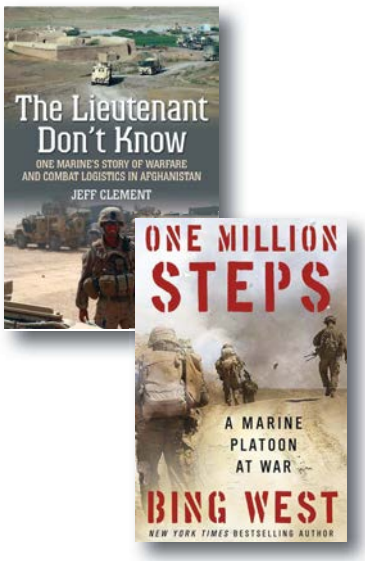

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President & CEO
MAJGEN EDWARD G. USHER III, USMC(RET)
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Publisher
COL JOHN A. KEENAN, USMC(RET)

Editor
COL JOHN A. KEENAN, USMC(RET)
j.keenan@mca-marines.org Ext. 163

Senior Editor
LTCOL KERRY A. KNOWLES, USMC(RET)
k.knowles@mca-marines.org Ext. 109

Layout/Editorial Production Coordinator
CHARLENE K. MONROE
c.monroe@mca-marines.org Ext. 139

Assistant Editor
BRIANNE BROWN
b.brown@mca-marines.org Ext. 193

Administrative Assistant
TINA M. PEARCE
t.pearce@mca-marines.org Ext. 144

Advertising Director
G. SCOTT DINKEL
s.dinkel@mca-marines.org 718–715–1361

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JANUARY 2015

Editorial: A Look at the Amphibious Future

In this month's issue, we lead off with a section on amphibious operations. As we have completed our mission in Afghanistan and the military tries to frame a national military strategy for a changed world, the Corps has emphasized that we will go back to the future and embrace our amphibious role and mission. After 13 years of essentially being a land army, that will be a difficult task. We have undertaken large-scale exercises such as Bold Alligator to try to recapture lessons that we have learned in the past and somehow lost in the sands of Afghanistan and Iraq.

However, there is a cold hard reality that we have to face when it comes to traditional amphibious operations and forward deployment. The reality is that there are not enough amphibious ships to meet the requirement and there will not be in the foreseeable future. That is the reason why we accomplished forward presence missions with innovative solutions such as Special Purpose MAGTF–Crisis Response (SPMAGTF–CR).

The other new reality is that our operational and tactical requirements have been diffused down the echelons of command. The operating concept that has been bandied about frequently is the Company Landing Team. Clearly many functions of intelligence, command and control, and fires that used to reside at the battalion and even regimental level have devolved down to the company. It is not as simple as just calling a vanilla-flavored rifle company that has a few attachments a Company Landing Team.

In conjunction with the Marine Corps Warfighting Lab, SPMAGTF 3 conducted exercises and experiments in fielding Company Landing Teams. Beginning on page 6, the commanders and staff provide an honest assessment of what worked, what did not work, and provide recommendations for action. They provide a view across the elements of the MAGTF. That is not to say that the concept is flawed, but a lot of work needs to be done on organization, training, and equipment to make it a reality.

The paucity of amphibious shipping is making what used to be called "split ARG ops" the norm rather than the exception. Basically, the MEU and the ARG are disaggregated to perform disparate missions in disparate locations. On page 16, LtCol Jeffrey Tlapa proposes that we recognize that reality and rather than three separate ships, each sub-optimized because the units are not in mutual support of each other, that we decentralize and create a mini-MAGTF on each ship. It is an interesting concept and reflects the reality of the distributed nature of three-ship ARG deployments.

Finally, we are really going back to the future. "Base Plate" McGurk is back. Only readers who have some gray at the temple or who were researching old articles have read the wit and wisdom of "Base Plate." The original articles, which I commend to you in our archives, were written by LtGen William K. Jones, and only the editor knew his identity. He wrote on a wide variety of topics that were of interest to the deck plate, and his wit and wisdom drew many a head nod. Today, "Base Plate" will continue in that vein, albeit with new authors. As you can see from his image (courtesy of LtCol Bill Cody, USMC(Ret)) on page 82, "Base Plate" is a Gunny with a knowing sneer and a lot of wisdom to dispense. We hope you enjoy the return of "Base Plate McGurk," and if you resemble some of the Marines in his sea stories, so be it.

John Keenan

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Diversity Recruiting

Capt Kates' article, ("How Effective is MCRC's Diversity Goal?" Nov 2014), writing as an OSO, brings back memories. As OSO, Washington, D.C., in the early 1960s, we had no diversity quotas whatsoever. In those days, my three selection teams visited 70 colleges and universities. As I recall, there were three primarily black colleges. Teams visited and not a single interested prospect could pass the written test. Thus, during my three years, we always exceeded our quota for PLCs, OCS, and Aviation Cadet candidates. We sent one woman's OCS application forward and as I recall, she did not make it to commissioning. Reading Capt Kates' well-written article makes it seem like a significant amount of time is spent in an effort to make diversity the prime goal. While I know the old saying "diversity brings us all together," the Marine Corps always prides itself in getting the finest to serve the officer corps. It is too bad that the emphasis appears to be not on quality, but diversity. While diversity is certainly important, this should not be the driver in officer selection. My guidance when reporting in to the district director was, "go and get the best qualified" to become officers of Marines. With this guidance, we had the luxury of not accepting every individual showing interest, thus only the best were those deemed ready to become a Marine officers. Times have changed!

LtCol Rodgers T. Smith USMC(Ret)

Why Are We Still Training Spanish Linguists?

Why do we train Spanish linguists in the Marine Corps? Proficient Spanish-speakers are common in Marine Corps units. Over 13 percent of the U.S. population (38 million people) speaks Spanish. Do we really have a shortage of qualified speakers within our own ranks?

The Marine Corps' problems with language training are linked to its problems with manpower management. The Marine Corps needs to train Marines to do the jobs they are expected to do.

For example, Tagalog linguists deploy only after they are sent to school to learn mission-critical languages in other Filipino dialects. The Marine Corps should train these Marines to speak these languages to begin with; not Tagalog.

The Foreign Area Officer (FAO) program sends Marines every year to DLI for extended periods of time to learn languages. If foreign language skills were a prerequisite for these programs, the Marine Corps could incur significant cost savings.

The Marine Corps is downsizing from a high of 202,000 in 2008 to less than 174,000. Given an increasingly fiscally austere environment, the Marine Corps' need for effective manpower management is readily apparent.

The Marine Corps' ability to do more with less is going to have a significant impact on the Corps' ability to win the nation's future battles. The service needs to start exploring now how to better manage their most precious resource—Marines.

Capt William Schick

It Shouldn't Require a Museum

I read with great interest Colonel Wonson's article "It Shouldn't Require a Museum" (Nov 2014), and even agree with more than a few of his comments/recommendations. However, I wish to specifically respond to his claim that he received "minimal support" from the History Division (HD) for his project. Readers should know that most requests for historical information (or Requests for Information (RFI)) that come to the HD are routed to the staff in the Reference Branch (RB) for action. In the case of then-Lieutenant Colonel Wonson's 1st Battalion, 1st Marines (1/1), the branch received 2 RFIs from his staff in 2010. The first RFI was for photos of 1/1 Marines in Korea and the second RFI was a question regarding the activation date of the 1st Marine Regiment. In regard to the first RFI, the RB photo historian responded within 3 days of the request (July 2010) and sent a CD of what we had in our collection of nearly a half million photos. This took some amount of time and effort since Marine Corps historical photos are frequently not identified by unit designator. Nonetheless, after laboriously sifting through hundreds of photos, we were able to come up with some that were positively identified as 1st Battalion, 1st Marines. The second RFI required some further detailed research, and we responded by e-mail in less than 24 hours directly to the Battalion Commanding Officer. We did not receive any other request for information for the 1/1 project. The Battalion did send a staff officer to our Branch in October 2010 while he was attending a conference aboard Quantico in the middle of their MEU workup, which was one month after 1/1 had the dedication ceremony for their historical display. During that visit, it was never made clear to the Reference staff about the specifics, size, and scope of the historical information they were looking for. In fact, the first time the branch was made aware of any dissatisfaction with what was provided was when they read the recent *Gazette* article.

Please understand that the HD, RB is certainly not above any warranted constructive criticism. However, in this case we were genuinely caught by surprise by the insinuation that we did not provide Colonel Wonson with our maximum effort 4.5 years ago. Based on the data we have on hand, this simply was not the case. The HD, RB can/will absolutely assist and facilitate any Marine unit interested in a similar historical project. Unfortunately, the Division is not internally resourced to conduct lengthy research on individual units down to the Battalion level. We wish we were. However, we can help and mentor outside representatives from specific units for efforts such as this. In the near future, the HD will be submitting an article to the *Marine Corps Gazette* describing who we are, what we do, and where we are going in order to best serve our Corps as we have since our inception in 1919. Perhaps this will help provide other commanders with a better idea of what HD can or cannot do for them in the future.

Col Peter J. Ferraro USMC(Ret)

>Editor's Note: The author is the branch chief of the reference branch of the History Division.

Letters of professional interest on any topic are welcomed by the *Gazette*. They should not exceed 200 words and should be DOUBLE SPACED. Letters may be e-mailed to gazette@mca-marines.org. Written letters are generally published 3 months after the article appeared.

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Company Landing Team

Employment from the seabase

by the Commanders and Staff, SPMAGTF 3, RIMPAC 2014

A seabased special purpose MAGTF (SPMAGTF), organized, trained, and equipped to conduct distributed operations, can simultaneously command and control, sustain and support by fires multiple widely dispersed company landing teams.

Background

From 10–14 July 2014, the Marine Corps Warfighting Laboratory (MCWL) conducted an advanced warfighting experiment (AWE) as part of the 2014 iteration of the biennial Rim of the Pacific exercise—RIMPAC 2014—in an effort to test the above hypothesis. MCWL entered into experimentation with the following five objectives: assess a seabased SPMAGTF's ability to command and control multiple CLTs dispersed across a maritime area of operation; assess logistics requirements for multiple distributed CLTs; assess a SPMAGTF's ability to provide fire support for distributed seabased operations and sea control as part of a naval campaign; assess the impact of experimental capabilities on SPMAGTF and CLT operations; and examine SPMAGTF and special operations force integration.[1]

Encompassing the results of previous institutional experiments and leveraging selected experimental technologies, the AWE focused on potential solutions to future MAGTF challenges, bringing together the enhanced MAGTF operations (EMO) series of experiments into a single, live force experiment. Later, during a 96-hour "freeplay" period, SPMAGTF 3 conducted operations across the Hawaiian Islands and further experimented with seabased CLT employment and support.[2]

The AWE included coalition partners such as these Australian Army soldiers. *(Photo by Sgt Sarah Dietz.)*

This article does not comment on the efficacy of the CLT concept. We don't object to the approach. Our intent is simply to provide helpful insights gained from live force experimentation at the MAGTF level, with the sincere hope that some of these insights will prove helpful to further experimentation and wargaming efforts and future revisions of *Expeditionary Force 21 (EF21)*.

Task Organization

During RIMPAC 2014, the 3d Marine Regiment headquarters formed the command element of SPMAGTF 3, and was embarked upon the USS *Peleliu* (LHA 5) and the USS *Rushmore* (LSD 47). SPMAGTF 3 was comprised of the following units: 3d Battalion, 3d Marines, as the GCE; a reinforced, composite squadron as the ACE; and Combat Logistics Battalion 3 as the LCE. SPMAGTF 3 formed officially on 16 June 2014 and sailed from Pearl Harbor on 8 July 2014. We conducted tactical operations almost immediately once out of port, ultimately employing CLTs across the Hawaiian Islands dispersed by as much as 200 kilometers.

While our experience in the AWE reveals the CLT should not be considered the exclusive domain of the infantry rifle company, the GCE was task organized into five CLTs, three of which were commanded by U.S. Marine Corps infantry company/artillery battery commanders, and two of which were commanded by Australian and Canadian officers. Each of the CLTs was comprised of personnel from RIMPAC partner nations—nine total within the SPMAGTF—to include Australia, Canada, Malaysia, Republic

of Korea, Indonesia, Mexico, Japan, and New Zealand.

The ACE, a reinforced composite squadron organized around the command element from Marine Heavy Helicopter Squadron 463, was comprised of 7 different type/model/series aircraft from 7 different squadrons across 3 different MAWs, totaling 36 fixed- and rotary-wing aircraft, both seabased and landbased. The bulk of the rotary-wing assets were seabased, to include CH-53s, MV-22s, UH-1s and AH-1s. Fixed-wing assets were landbased, and included F/A-18s and KC-130 aircraft. Exercise constraints limited the ACE to daytime operations from aboard ship during a 10-hour period of flight operations.

The LCE, organized around a combat logistics battalion, operated largely from seabased platforms and performed critically important logistics functions in support of MAGTF activities and operations, both afloat and ashore.

What Makes a CLT a CLT?

For the non-believers, an important question remains: Why does the CLT matter? For this experimentation effort, and others that follow, we offer perhaps an even more important question: What makes a CLT a CLT? *EF21* addresses the first question; experimentation, wargaming, and training should address the second. *EF21* espouses the importance of these organizations, offering that CLTs:

- May take on a larger role in crisis response and may form the GCE component of a SPMAGTF.
- Provide a means to engage forward in more locations.
- Enable dispersed operations to secure landing sites or maneuver deep to inland objectives.
- Must have the maneuver capability to disperse and mass throughout the littorals.
- Can form the basis of an immediate response.[3]

CLTs are envisioned as critically important forces in crisis response, operating responsively, perhaps in multiple locations simultaneously. *EF21* also implies that CLTs may have a basis for employment in "crises," even when that term is considered in its broadest context beyond just actions in a permissive environment.[4] This makes the CLT an operational asset to the MAGTF commander in response to a wide range of situations. The CLT may not be the ultimate organization to deal with an existing crisis from beginning to end, but it just might be the first and the most responsive. Reinforcing committed CLTs and compositing forces into larger, more capable, more enduring organizations, as *EF21* envisions, may follow in other specific operational situations.

A rifle company or other company-sized organization, however, is not a company one day and a CLT the next.

The transformation to CLT is not as simple as a name change.

The transformation to CLT is not as simple as a name change. We argue this change ultimately occurs in two domains: organizational, to include people, equipment, and capabilities; and philosophical, the mindset with which an organization approaches warfighting.

There is no single task organization for a CLT; the mission will dictate its final form. Organizationally, however, the ultimate success of the CLT is derived directly from its task organization, where every Marine and sailor employed into the fight has earned his or her seat.[5] Everyone must be value added. There is no room for the "nice to haves," only room for the "need to haves," those individuals and capabilities that are absolutely essential to sustained functioning and mission success of the CLT. This requires careful planning by the CLT commander and a broad appreciation for those required capabilities resident within each warfighting function necessary for success.

One example of the criticality of establishing the proper task organization relates to the manning of the company level intelligence cells (CLICs) within the CLT. To support widely dispersed operations, our experience from the AWE reveals the CLICs should be manned with additional and more senior personnel to enable development of mature intelligence assessments; effectively coordinate and direct supporting intelligence, surveillance, and reconnaissance (ISR) assets; and maintain solid information flow with higher echelons of command. Although the manning of the CLIC will vary according to the mission, the organization might include SNCOs—or even officers—who possess the correct training and experience to properly support the commander of the CLT and its subordinate units. The CLICs should also be outfitted with the necessary communications equipment to allow them to effectively communicate with higher, adjacent, and supporting commands; coordinate ISR support; manage RAVEN operations; and facilitate counterintelligence/human intelligence and signals intelligence operations. Planning for this cannot be an afterthought. Simply adopting the standard company-level CLIC manning model will likely prove insufficient.

Philosophically, the success of the CLT is also derived from how its commander, subordinate leaders, and personnel approach warfighting. This is their combat mindset. In this regard, the expeditionary mindset described in *EF21* is truly meaningful. While all elements of the espoused expeditionary mindset will benefit the CLT, the following elements are arguably the most critical:

- Solving problems with minimal support and broad guidance.
- Deploying where there is no infrastructure and operating immediately.
- Deploying and employing tailored, economical forces of almost any size and configuration.
- Living and operating in austere conditions where large support bases are unacceptable or infeasible.
- Minimizing potential adverse cultural and political impact by stepping lightly in all areas of support and infrastructure and working with our regional partners to achieve success.
- Enhancing partnerships with Special Operations Forces that exploit our complementary capabilities.[6]

Our assessment is that a successful CLT has a well-developed bias for action. It embodies all elements of this expeditionary mindset. Its commanders, leaders, and Marines understand and are completely comfortable operating within their higher commander's intent, and the CLT is sufficiently equipped to maintain situational awareness of the larger operational picture in order to enable appropriate and timely decision making. Absent this mindset and these critical capabilities, the CLT will struggle to be successful. This end state demands the right training and a philosophical orientation to warfighting that paves the way for operational success.

Lessons Learned and Reactions

During the AWE and follow-on training, SPMAGTF 3 succeeded—and failed—in the employment of CLTs from the seabase. The following comments provide an overview of observations, lessons learned, and internal reactions: Seabased command and control of widely dispersed CLTs merits collective examination by SPMAGTF and GCE staffs. During the AWE, the command and control burden for the CLTs was shouldered almost exclusively by the SPMAGTF 3 staff. In practice, the SPMAGTF became intently focused on the activities and support requirements of the CLTs, perhaps to the exclusion of maintaining overall situational awareness of the entire battlespace and other important functions. While SPMAGTF 3 was able to command and control multiple company-sized units, in doing so we did not effectively harness the capacity resident within the GCE staff. A solution here is to fragment the intelligence, fires, and logistics expertise within the GCE and provide that expertise directly to the CLTs in the fight. This may overcome some of the manning and task-organization challenges identified earlier.

During the freeplay phase, we adopted a different approach, generating greater operational efficiency and success. While we explored the option of embarking the GCE staff on another ship in the amphibious squadron to provide command and control of the CLTs, SPMAGTF 3 ultimately integrated select GCE staff into the landing force operations center, giving the GCE commander the ability to command and control the subordinate CLTs in a location collocated with the SPMAGTF staff. Enhancing the role the GCE plays vis-à-vis employed CLTs can improve the performance of the CLTs, better linking CLT operations and support to the MAGTF. While adhering to the constraint of seabased command and control, this arrangement better leveraged GCE capacity in support of CLT operations, allowed the SPMAGTF 3 command element to focus on the wider battlespace and future operations, and generated greater efficiencies within the organization. The SPMAGTF became a true higher headquarters to the GCE as opposed to trying to be the GCE, ensuring it was far more than a simple force provider to the SPMAGTF.

GCE Perspectives. Considering the significant distances employed from the seabase, and the real potential for no mutual support from other employed CLTs, we believe CLTs have four fundamental requirements: better communications; access to organic and non-organic fires; access to non-organic enablers; and enhanced logistics. Unfortunately, the air bridge proved too tenuous for adequately responsive fires, resupply, or casualty evacuation. At one point, the SPMAGTF was attempting to support three engaged CLTs simultaneously, one of which was nearly 200 kilometers from the seabase. It would not be difficult to envision all three CLTs simultaneously calling for resupply, casualty evacuation, or air support. Casevac were the most problematic since these flights could have required an armed escort. The fluidity of these requests could not be supported by the deck cycles, crew day, and synchronization of the ship's internal procedures. Unlike the MEU, which generally focuses its assets on supporting a singular mission, continuous (and simultaneous) CLT operations drove a pace that could not be reliably supported by the seabase.

Specifically, from a command and control perspective, the AWE employed two different communications networks. The Distributed Tactical Communications System (DTCS), a handheld, satellite-based over-the-horizon/on-the-move system provided voice, data, and position location information for squad leaders and above within the CLTs. This system is not new, having undergone widespread testing and operational use. Also employed was a self-forming, meshed, tactical radio network, commonly referred to by our Marines as TRELLISWARE.[7] CLT commanders clearly saw the potential of having a netted, data-capable, position-articulating communications system to allow them to coordinate fires, maneuver, logistics, and casevac. Our experience was that the systems did not push enough communications power to cut through vegetation, make it back to ship, or reach above to an aircraft. CLT commanders suggested that many ills could be remedied with increased power output.

One of the most promising pieces of experimental equipment was the Marine Air-Ground Task Force Enabler-Light (ME–L). The ME–L is a command and control suite with voice, data, and satellite communications capabilities synchronized with position locator transponders on other vehicles. It encompasses DTCS and other satellite communications capabilities mounted within an internally transportable vehicle. Designed to serve as the combat operations center for the CLTs, we also assessed that its capabilities are ideal for an expeditionary battalion landing team command element. Although the ME–L's logistical footprint and maintenance tail still tied it to a road or landing zone, both company commanders who employed the system discovered that the four work stations for fires, air, operations, and logistics, respectively, could synchronize fires, maneuver, and logistics. One company commander, however, felt strongly that the ME–L was "the best piece of gear [but] for the battalion, not for me."[8] Our experience reveals a GCE command and control node ashore using the ME–L could perhaps provide crucial landbased capabilities that could allow CLTs to realize their potential. Further experimentation will tell the tale.

Access to non-organic enablers that enhance lethality, capability, and survivability proved no less critical. For

example, while the seabase may provide a location to which casualties may eventually be moved, there is an absolute necessity for sufficient medical capacity to treat wounded Marines on site. To this end, Marines and sailors conducted further testing with tactical telemedicine, a "ruggedized, manportable patient monitor that provides vital signs and video and audio over tactical networks" and attempts to bring medical expertise to the location of the CLT.[9] While results were mixed, the concept is sound even if the supporting infrastructure was not. Related, sufficient long-haul communications that tether the CLT to the seabase and, importantly, to other employed CLTs, will be required to enable continued seabased planning, continuous Blue-Green coordination, and enduring battlefield situational awareness. There also exists a need for a CLT task organization that grants sufficient organic fire support and the ability to clear those fires at the company level. The Expeditionary Fire Support System (EFSS) proved its worth to Marines in the fight. Loaded aboard SPMAGTF 3 aircraft and employed over 200 kilometers from the seabase, the EFSS provided immediate fire support to the CLT and enhanced lethality locally.

Logistically, even when supplies were effectively delivered to CLTs, they became encumbered by the problem of distribution. Deliveries required the surrounding area to be protected, with supplies then man-packed to outlying platoons. This physical and security tax drained precious Marines from mission-related tasks and limited the operational reach of the CLTs. MCWL, sympathetic to the distribution problem, introduced a number of robotic technologies that showed promise. Although both the Legged Squad Support System (LS3) and the Ground Unmanned Support Surrogate featured tradeoffs in terms of fuel, space, and mechanics, both of these technologies aided in the transportation and distribution of water, food, and notional ammunition. CLT commanders still required unimproved roads or paths to gain access to outlying platoons, but the unmanned features allowed for an accompanying security element patrol around the robotic resupply convoy. While the LS3 could only carry a relatively small load and had trouble traveling over holes and vines, the CLT commander still successfully distributed supplies from the landing zone to the platoons using only the LS3.

SPMAGTF 3 succeeded—and failed—in the employment of CLTs from the seabase. *(Photo by Cpl Matthew Callahan.)*

ACE Perspectives. ACE operations often come down to the arithmetic of time and distance; aviation support to CLT operations is no different. Distributed operations—manifested through the simultaneous employment of multiple CLTs—increases the variables in the equation. This requires careful planning and efficient use of assets to provide the best support to the rifleman in the fight.

> ***This physical and security tax drained precious Marines . . .***

The ACE inserted two CLTs at shorter range (tens of kilometers) from the seabase and one CLT at longer range (over 200 km), provided limited rotary-wing and/or fixed-wing close air support coverage for each of the inserts and provided on-call resupply, casevac, and some on-call and/or pre-planned close air support during daylight hours during the AWE period. The AWE offered significant lessons learned in planning, maneuver, command and control, fires, and sustainment as the ACE executed assault support, offensive air support, control of aircraft, and missiles as well as aerial reconnaissance and antiair warfare.

Employment of multiple CLTs requires a breadth of planning capability within the ACE. Compared to standard MEU operations where the BLT's rifle companies are each largely focused on a specific means of going ashore (via air assault, boat, and mechanized means) and are spread across the ships of the amphibious ready group, having three CLTs aboard the *Peleliu* and the *Rushmore* which would all go ashore on sequential days and conduct operations concurrently changed the planning mindset for the ACE. Mission planning, confirmation briefs, and execution all occurred simultaneously, and all missions were air options or had a heavy air requirement.

Maneuver over long distances is perhaps the greatest strength of the ACE in regard to employment of CLTs. Even with a reduced number of medium lift assets as compared to a MEU ACE, SPMAGTF 3 was able to push its CLTs from the seabase to areas of operation hundreds of kilometers apart. An ACE

can easily be tailored to provide the maneuver required for a CLT to conduct dispersed operations and operate deep inland. Deploying multiple CLTs simultaneously becomes a different story with the lift required for a battalion air assault exceeding what a MEU ACE could do in single deck cycle. Dispersed operations at longer ranges exacerbate the issue. We learned multiple air capable decks within the seabase are a critical capability when employing multiple CLTs simultaneously over great distances.

The standardization of satellite communications across the different assault support aircraft allowed effective command and control of distributed CLT aviation support well over the horizon from the Landing Force Operations Center. However, these communications were over a single net that became quickly overwhelmed by concurrent missions. Redundancy and depth in communications became critically important. Additionally, digital interoperability amongst all ACE aircraft and the MAGTF is critical as joint and national assets outside the control of the MAGTF may not be available to provide the ISR needed for the CLTs. Digital interoperability exponentially increases the situational awareness for the CLT at the seabase, in the air, or once on the ground as imagery and information from any ACE asset can be quickly presented to the CLT through whichever platform is currently in support. Digital interoperability is an item on all Assault Support Operational Advisory Group top 10 lists this year.

Aviation-delivered fires in support of CLT maneuver were executed using both rotary-wing CAS from the seabase and fixed-wing CAS from ashore. Seabased CAS was launched from the *Peleliu*. Effective coverage was provided to the GCE on initial insert; however, once all three CLTs were on deck and distributed over a wide area, limitations became apparent. After the initial insert, on-call CAS could not be supported from a single ship and provide around-the-clock coverage for one of the CLTs, let alone all three. Amphibious ships' deck crews are not manned to support 24-hour air operations for more than a few days. Additionally, regardless of ship positioning, one of the three CLTs would be outside the range of rotary-wing CAS due to the range and endurance limits of the ACE's UH-1s.

Compared to other aircraft in the ACE, UH-1s are range/endurance limited. This has been mitigated in the past by using separate seabases for the assault support aircraft and the UH-1s. The CLT concept increases the number of landing teams supported, further exacerbating the range/endurance limitations. The UH-1's weakness is highlighted by the number 2 item on the current H-1 Assault Support OAG top 10 list: extended range and influence within MAGTF area of operations. This issue suggests pursuing options to increase range, endurance, and communications (voice/data) capability beyond current combat radius without reducing full payload, in order to align with current MAGTF area of operations.

The MAGTF commander must prioritize aviation-delivered fires. . .

The MAGTF commander must prioritize aviation-delivered fires amongst the CLTs and develop a holistic fire support plan that incorporates rotary- and fixed-wing CAS, shorebased indirect fires, and naval surface fire support to adequately cover multiple CLTs. The fire support plan for multiple distributed CLTs will likely not have overlapping coverage with different fire support assets covering the same time periods, but a rotation of assets to minimize gaps so that a CLT is not left without on-call fires for extended period of time. HIMARS was a particularly useful asset to cover gaps in aviation coverage with the range to support distributed CLTs from a single site.

Had all three of the CLTs been in heavy contact simultaneously, ACE assets would have immediately stretched thin and—within 36 hours—significant gaps in coverage would have surfaced. More landing teams at greater distances apart require distributing the ACE's aircraft, UH-1s in particular, to additional sea/shorebases to ensure appropriate light assault support (resupply, insert, extract, casevac), aerial reconnaissance and offensive air support. Shorebases can leverage aviation ground support capabilities and utilize host-nation facilities and/or expeditionary forward arming and refueling points. Additional seabases place the aircraft closer to the objective area and allow for air operations on a different deck cycle to mitigate range and deck limitations. Seabases can be increased by operating split ARG or simply having additional amphibious ships available to the MAGTF like the littoral combat ship, which offers complementary fires capability and a landing/refueling/rearming capability for UH-1s.

As the MAGTF increases the number of landing teams, there is a commensurate increase in the requirement for forward air controllers (FAC)/joint terminal attack controllers (JTAC). Each landing team should have a FAC/JTAC to coordinate, plan, and execute ACE integration/support. This is especially critical as ranges between the landing team and forward/seabases increase and as the duration of operations increase. FACs/JTACs will have to be well-versed in coordinating both assault support and offensive air support operations, and oversight by their counterparts in the battalion/MAGTF headquarters will be more critical in terms of prioritizing and right sizing the ACE support. Maintaining situational awareness will tax current communications and battle command display systems. Control and approval of fires may have to be pushed to the company level as the battalion/MAGTF headquarters tracks multiple landing teams at varying ranges for varying durations and under varying conditions.

Sustainment of multiple distributed CLTs presents a similar dilemma as fires with the ability of the ACE to move a continuous stream of supplies long distances for a sustained period. Although the speed and range of tiltrotor aircraft and the capacity and range of heavy-lift assets simplify the problem, deck

cycles, aircraft maintenance, and crew limitations create periods where on-call resupply is infeasible. Additional ships with a deck open on an offset schedule again offer a means to increase on-call resupply. Casualty evacuation and treatment is another continuous undertaking. The tyranny of distance can make arrival at a treatment facility within the "golden hour" impossible. Use of a forward positioned fleet surgical team in combination with split ARG operations or other forward-based sites becomes a necessity to overcome distance and time.

LCE Perspectives. In keeping with expeditionary logistics tenets highlighted in *EF21*, the SPMAGTF executed, observed, and assessed the following areas for each CLT during the AWE:

- Days of supply capacity and distribution.
- Push versus pull logistics from the seabase.
- Leveraging aviation assets versus ship-to-shore connectors.
- Command and control of logistics elements.
- Gaps and shortfalls to existing support equipment.

Employing widely dispersed CLTs across a large geographic area complicates sustainability and provoked discussions about sustainment alternatives available to the SPMAGTF. Ultimately, SPMAGTF 3 tried to find the "sweet spot" between retention of capacity at sea to invigorate flexibility to respond to new missions and sustaining missions ashore in a more responsive manner.

With multiple, widely dispersed CLTs employed simultaneously, examination and prioritization of aerial and surface sustainment options became paramount. The number of days of supply that a CLT deploys with is very much dependent on their mission and how they employ from the seabase (i.e., heliborne versus mechanized), which in turn drives the related concept of support. Air-inserted CLTs, due to the terrain in which they operated, could only carry one day of supply and faced severely restricted individual carrying capacity—what they could fit inside day packs and issued camelbacks and canteens. Technology injects to help carry additional supplies and distribute these supplies to platoons did not afford much additional capacity. As a result, there was a need for daily planned (push) resupply that was no fail since delays in water replenishment specifically would have quickly degraded the CLT given the terrain, temperature, and humidity of the operating area.

Other CLTs were inserted via LCACs and other surface means with two to three days of supply. As part of the overall concept of support for these CLTs, a small combat service support element was also pushed ashore to provide Class I resupply, as required. While this resulted in some limited landbasing of CSS, the limited nature of this support—and the fact it remained tethered to the seabase—still fell, we believed, within the acceptable boundaries of expeditionary logistics. These additional days of supply provided the SPMAGTF much needed flexibility.

For some CLTs, surface sustainment options were infeasible due to the location of amphibious shipping. This necessitated the utilization of rotary-wing assets to ensure sustainment of forces ashore. Ultimately, as stated, the ACE's continuous role in inserting, extracting, and providing sustainment to distributed forces stressed their capacity greatly.

To preserve precious aviation assets, it was necessary for the SPMAGTF to identify those forces that could be sustained by leveraging capacity within the amphibious squadron. While air-delivered sustainment is generally feasible and always attractive, doing so when surface options can produce the same results can (negatively) impact the ability of the ACE to respond to unanticipated missions and taskings. Correspondingly, this reduces the SPMAGTF's capacity to conduct additional distributed operations to include efforts to mass maneuver forces at specific times and places. Surface sustainment, therefore, should be constantly examined and utilized, when feasible, in order to retain aviation capacity for the unforeseen.

Distributed operations greatly increased the LCE's requirement to think through the apportionment of logistics capacity. Ultimately, SPMAGTF 3 LCE had to strike a balance between retaining flexibility with its logistics capacity and achieving responsiveness with the same. The maneuver bias of CLTs makes this challenging. While we generated flexibility in sustainment by retaining logistics at the seabase until the time of need, we know positioning logistics capacity ashore could have increased our responsiveness. The disadvantage of retaining all logistics capacity at the seabase is that numerous variables impact the ability to maneuver ashore at the time of need. Sea state fluctuations and adverse weather conditions can induce friction when deliveries are needed quickly after sustainment needs are identified. Commitment of logistics capacity ashore avoids this delay, but it commits capability to a specific location, one that may be geographically proximate to one CLT but nowhere close to another.

In execution, any effective logistics plan is likely a combination of push and pull logistics via both air and surface means. The SPMAGTF relied more heavily on push logistics since a majority of resupply missions had to be de-conflicted with other air and surface movements or built into the air and surface movement plans the day prior. Due to deck cycles, air tasking order constraints, and other factors, requesting a rapid resupply via air proved very difficult in a training environment without having to coordinate the use of aviation assets several layers above the SPMAGTF. Rapid resupply via surface means proved tricky at times, as did deck operations that had to be planned well in advance to enable de-confliction with air operations, and ships had to be positioned in the appropriate "operational boxes" to facilitate reasonable ship-to-shore movements.

Final Thoughts

SPMAGTF 3's participation in the MCWL's AWE during RIMPAC 2014, along with freeplay training, was immensely beneficial to our warfighting readiness and has edged the discussion toward answering "yes" to the articulated hypothesis. All MCWL objectives were tested, to include special operations force integration, a critical

Planning for and employing CLTs is a thinking man's game. *(Photo by Sgt Sarah Dietz.)*

component of our operations that was not critically disrupted by our seabased posture.

SPMAGTF 3 lacked refined and refreshed amphibious know how and perspective, a direct result of limited access to amphibious shipping for meaningful training and our limited opportunities to work alongside the U.S. Navy in the conduct of amphibious operations. Befitting our institutional culture, however, SPMAGTF 3 adapted quickly and learned what we once knew and forgot or what we simply never knew in the first place. We quickly identified and solidified multiple Blue-Green "touch points" in an effort to streamline support to CLTs distributed across the Hawaiian Island operating area.

SPMAGTF 3 quickly learned that planning for and employing CLTs is a thinking man's game, as this article hopefully has shown, both at the MAGTF level and amongst CLT leaders and Marines. No less significant, we learned the critical vulnerability of the CLT remains its dependence on a long and brittle line of communications back to the seabase. Marines in the fight need water, ammunition, batteries, and awareness, and no amount of organizational shuffle, doctrinal development, or experimentation will alter this fact. Despite extensive experimental equipment and reasonably resourced units during the AWE, the employed CLTs remained relatively isolated from the seabase. As the seabase functions as the life line of the employed CLT in so many ways, absent a seabase that can keep pace with the operational requirements of the CLT, the CLT will wither and die. Without innovative solutions to fortify that brittle line of communications to the CLT from the seabase, the operational reach of the CLT will not extend much past the beachhead or the insert landing zone. It will, therefore, not grow to be the operational asset for the MAGTF commander espoused in our capstone concept.

> ***. . . SPMAGTF 3 adapted quickly and learned what we once knew and forgot or what we simply never knew in the first place.***

While further work devoted to solving this line of communications problem remains, we state definitively that what is articulated in the MCWL hypothesis can be done. The MAGTF organization provides a solid foundation to support all elements of this hypothesis. Ultimately, however, while system and technological advances are critical to success, we contend that the level of training of each element of the amphibious force, the relationships formed, and the cohesion and shared know how of the Blue-Green team will have much to say about precisely how successful the CLT employment enterprise will be. Moving forward, our focus must be to ensure the shared know how of the Blue-Green team remains the center of gravity of our growth as we endeavor to advance experimentation efforts and move beyond our current capabilities.

Notes

1. This language was pulled directly from the Marine Corps Warfighting Laboratory's (MCWL) pamphlet in support of the Advanced Warfighting Experiment.

2. Ibid.

3. Department of the Navy, Headquarters Marine Corps, *Expeditionary Force 21: Forward and Ready; Now and in the Future* (Washington, DC, 4 March 2014), 14.

4. Ibid.

5. The specific language "earn your seat" was used and introduced to the 3d Marines staff by Col Frank Donovan, Director, Expeditionary Warfare School, during an amphibious operations PME in Hawaii in February 2014. The words are his; the learning is ours. We learned how true this was during CLT employment as part of RIMPAC 2014.

6. *Expeditionary Force 21*, 6.

7. MCWL.

8. Verbal debrief with Capt Chad Buckel, CO, CLT-2, SPMAGTF 3, while aboard USS *Peleliu* (LHA 5), 14 July 2014.

9. MCWL.

Maritime Airborne Company

Enhancing the company landing team's insert capability

by Maj Breck L. Perry

The Marine Corps has developed systems for building up combat power ashore. *(Photo by LCpl Richard Currier.)*

In early 1940, the Commandant of the Marine Corps, MajGen Thomas Holcomb, expressed an interest in developing insert capabilities that would provide the Marine landing force with alternative options for rapidly building combat power ashore during amphibious operations. Following years of formulating doctrine and experimentation through myriad amphibious landing exercises, the Marine Corps entered World War II with three primary insert capabilities: airborne, surface via landing craft, and surface via rubber boat.[1] Both methods of waterborne surface insert have withstood the test of time and have undergone considerable advancements to provide today's MAGTF commander with viable options to insert his landing force depending on the threat and the availability of suitable beach landing sites. Airborne insertion, however, is currently reserved only for specialized units. With the advent of the Marine Corps' *Expeditionary Force 21* (*EF21*) capstone concept, it is time to re-examine an old technique with a new approach by providing the MAGTF commander with an airborne-capable rifle company that can conduct a multitude of tasks in support of advance force and forcible entry operations. The purpose of this article is to describe the utility of the "Maritime Airborne Company" (MAC) and its fidelity with the concepts of *EF21*, *joint operational access concept (JOAC)*, distributed operations, and enhanced company operations, while providing a recommended concept of employment for further development.

>Maj Perry is currently assigned as the Officer in Charge, Expeditionary Warfare Branch, III MEF Special Operations Training Group.

Operational Access

The Marine Corps' two primary missions are to respond to crises and ensure littoral access. The problem is then framed on the premise of how it can accomplish its two core missions in a future operating environment that presents significant antiaccess/area denial challenges against increasingly capable enemy forces in competitive domains of air, land, sea, space, and cyberspace. According to the *JOAC*, the solution to the problem posed above is through the "leverage of *cross-domain synergy*—the complementary vice merely additive employment of capabilities in different domains such that each enhances the effectiveness and compensates for the vulnerabilities of others."[2] The Marine Corps' concepts of *operational maneuver from the sea (OMFTS)* and *ship-to-objective maneuver (STOM)* are critical components to the application of cross-domain synergy and operational access in the Joint fight.

Since the mid-1990s, the Marine Corps has continued to grapple with developing the necessary platforms to effectively execute *OMFTS* and *STOM*. High-speed connectors and a replacement for the AAV have failed to achieve fruition, leaving the MV-22 Osprey as the only operational insert platform capable of complying with the intent of the above concepts. The *EF21* solicits "capability and capacity development" in areas that enhance the Corps' expeditionary readiness, responsiveness, and lethality in order to accomplish its

MACs will provide a means of accomplishing diverse missions. *(Photo by Cpl J.R. Heins.)*

two primary missions. The development of a MAC is another way that the MAGTF commander can utilize the current means at his disposal to achieve his ends.

ECO and the Company Landing Team

EF21 discusses the employment of CLTs in support of the GCE mission. It states that "Company landing teams provide a means to engage forward in more locations and respond to crises. During entry operations they enable dispersed operations to secure landing sites or maneuver deep to inland objectives."[3] The genesis of the CLT stems from the development of the platoon-level distributed operations (DO) and company-level enhanced company operations (ECO) concepts developed by Marine Corps Combat Development Command a decade ago. These concepts provided an approach that "maximizes the tactical flexibility offered by true decentralized mission accomplishment, consistent with commander's intent and facilitated by improved command and control, intelligence, logistics, and fires capabilities."[4]

ECO was exposed to the ultimate validation of relevancy in combat during Operation Enduring Freedom from 2010 to the present. Rifle companies were routinely apportioned battlespace and assigned responsibilities commensurate with the size and scope of infantry battalions from campaigns past. Reinforced with enabler support from joint terminal attack controllers; human/signals intelligence teams; combat logistics battalion (CLB) detachments (dets); civil affairs teams; psychological operations teams; explosive ordnance disposal teams; combat engineers; Afghan National Army and police advisor teams; medical detachments; arrival and departure control group; interagency attachments; and rifle companies and their respective platoons, operated at a level of autonomy and decentralization that was nested under the battalion commander's intent and guided by higher headquarters' campaign plan. Decentralized company-level operations proved highly effective. Developing a culture of small unit leadership that internalizes active problem-solving and bias for action, and the tactical/technical proficiency attained during these experiences are only a few of the byproducts from challenges overcome by Marines during sustained, independent operations.

Rifle companies were routinely apportioned battlespace and assigned responsibilities commensurate with the size and scope of infantry battalions from campaigns past.

The commander can use the MAC to achieve his ends. *(Photo by Cpl James Marchetti.)*

The progression from DO, ECO, and ECO in combat facilitated the development of the publication *MCIP 3-11.01A, Infantry Company Operations*. This publication broadens the parameters on what a rifle company can accomplish throughout the spectrum of conflict. Rifle companies are expected to accomplish not only tactical tasks within the realm of offense/defense op-

An internal airborne capability will be provided by the proposed MAC. *(Photo by LCpl Robert D. Williams, Jr.)*

erations but also in the stability sphere, including key leader engagement and host-nation force development, thus implying the enriched autonomy and utility of today's rifle company from Phase 0 (shape) to Phase 5 (enable civil authorities).[5] This unique, decentralized, lethal unit can conduct numerous operations in any environment as reinforced by the Corps' insatiable appetite to expand the capabilities of the CLT to accomplish an abundance of tasks in support of crisis response or amphibious operations. As the Corps continues to develop the concept of the CLT, it should also consider analyzing the airborne insertion technique that can rapidly push the CLT and its provided combat power ashore.

Concept of Employment

The proposed MAC will provide the MAGTF commander with an internal airborne capability that can conduct STOM via organic, heliborne assets and/or landbased C-130s. Aircraft capacity for combat loaded, Marine parachutists are as follows: (8) MV-22, (20) CH-53, (64) C-130.[6] Utilizing the future operating environment envisioned by *EF21* as the scenario, temporal/spatial air superiority, and penetration points created in the enemy's A2/AD defense network are necessary, pre-set conditions prior to launching the MAC. The MAC is then inserted via multiple drop zones due to the adversary ground threat, which precludes a deliberate landing of troops or a vulnerable, steady hover to conduct fast-rope/rappel insertion. Upon insertion, the MAC conducts linkup and/or conducts movement to the objective and carries out the remainder of its assigned mission.

The advantages provided by the MAC COE over traditional methods of vertical envelopment are its speed, tempo, and mass (in comparison to airborne insertion of only reconnaissance elements). It increases the survivability of aircraft by alleviating the necessity to land or having to maintain a steady hover (helicopters) that gives the enemy time to develop the situation and acquire friendly aircraft as targets of opportunity. In addition, the MAC can insert with more sustainment and organic fire support than compared to a fast-rope or rappel insert.

A disadvantage to this proposed concept is the extended training pipeline for special skill airborne and jump master qualifications. A MAGTF commander would need to decide early on whether or not to employ this capability based on his estimate of the situation (similar to how a MEU commander decides whether he wants a small boat company or motorized company within his battalion landing team). Another disadvantage is the obvious risk of injury upon insertion, which reduces over time with proper training and education.

Conclusion

There is nothing new about the MAC or the capability that it provides. Airborne insertion is a "way to get to work." The mechanics of an airfield seizure, raid, or securing of key terrain remain the same. However, with the enhanced capabilities bestowed upon today's Marine rifle company, it is important that the Corps pursues all available means to maximize the combat potential of its forces. This includes developing this COE into a viable option for the MAGTF to possess: in essence, a unit capable of accomplishing Army Ranger tasks but organic to the MAGTF. GEN Martin Dempsey, USA, recently stated in the *2014 Quadrennial Defense Review*: "Innovation is the military imperative and the leadership opportunity of this generation. It's a fleeting opportunity."[7] New technology is not always the answer. Sometimes looking at the past can provide the clarity and innovation needed to expand upon current concepts for the future.

Notes

1. Department of the Navy, Headquarters United States Marine Corps, History and Museums Division, *Silk Chutes and Hard Fighting: US Marine Corps Parachute Units in World War II,* by John Hoffman (Washington, DC, 1999).

2. Department of Defense. *Joint Operational Access Concept (JOAC)* (Washington, DC: Joint Chiefs of Staff, 17 January 2012).

3. Department of the Navy, Headquarters United States Marine Corps, *Expeditionary Force 21: Forward and Ready; Now and in the Future* (Washington, DC, 4 March 2014).

4. Vince Goulding, *Enhanced Company Operations* (Quantico, VA: National Defense Industrial Association, 22 October 2008).

5. Department of the Navy, Headquarters United States Marine Corps, *Marine Corps Informational Publication 3-11.01A, Infantry Company Operations*, MCRP 3-11.01A (Washington, DC: Government Printing Office, December 2013).

6. Department of the Army, *Field Manual 3-21.220*: *Static Line Parachuting Techniques and Training*, FM 3-21.220 (Washington, DC, October 2013).

7. Department of Defense, *2014 Quadrennial Defense Review* (Washington, DC: Department of Defense, March 2014).

The Micro-MAGTF

Optimizing distributed amphibious operations

by LtCol Jeffery Tlapa

Much has been discussed and written about disaggregating the MEU or using it to conduct distributed operations. The problem remains that the MEU is designed to operate as an independent entity, and as it splits up to conduct distributed operations, it does so at a sub-optimal level. The MEU is the smallest standing MAGTF. All the elements of the MEU have traditional associations with the amphibious ready group ship mix, and the Marine Corps has exerted tremendous effort in maximizing the capability of the MEU across these three ships. I argue that this optimization is ideal as long as the three ships operate within mutual support of one another. The fact remains that sending a single ship from a MEU on an independent mission detracts from the overall capability of the unit and sends a less-than-optimal mix of capabilities to operate "alone and unafraid." Now is the time for the Marine Corps to embrace the concept of distributed MAGTF operations and build out the capability on each ship so it possesses the capabilities of the MAGTF only in miniature—the Micro-MAGTF.

>LtCol Tlapa is currently assigned to Marine Corps University as the Department Head for Leadership at Command and Staff College. LtCol Tlapa has served in a variety of billets to include chief of staff of the Regional Corps Advisory Command to 201st Corps Afghan National Army and as a planner at U.S. Pacific Command.

Validity of the argument for the development of Micro-MAGTFs is illustrated with the development of special purpose MAGTF–crisis response (SPMAGTF–CR) in Rota, Spain, and the Rotational Force Darwin and Black Sea. These forces represent an attempt to constitute a standing MAGTF capability at a level smaller than the MEU, yet they depend upon being shorebased and limited to light heliborne forces. The fact that they have become institutionalized points to their utility and validity. Coupling the capabilities of these smaller MAGTFs with the diplomatic and operational flexibility of seabasing makes the Micro-MAGTF a viable concept.

. . . embrace the concept of distributed MAGTF operations . . .

It may be time for the single ship, independent micro-MAGTF. *(Photo by LCpl Richard Currier.)*

How to Do It

The biggest challenge to implementing the Micro-MAGTF will be the Marine Corps itself. This new configuration will place a burden on lieutenant colonel commanders to command not just the forces in the command that they brought to create the MEU, but all elements of the MAGTF. This should not be too difficult. Between the education provided at Expeditionary Warfare School (EWS) and Marine Corps Command and Staff College (CSC), Marine officers should be ready to face the challenges of MAGTF command—particularly at the Micro-MAGTF level. Pundits might point out that this undermines the importance of the colonel as the MEU commander. The fact remains that MEU commanders find themselves sending task forces from existing assignment to shipping with less-than-optimal capability. We, as a Corps, must look to push the trust of "MAGTFery" to the lieutenant colonel level of command. The curricula at EWS and CSC call to develop MAGTF officers, yet the Marine Corps does not implement standing MAGTF command until the rank of colonel. Decentralizing MAGTF capability on each ship should be done to address the current operating environ-

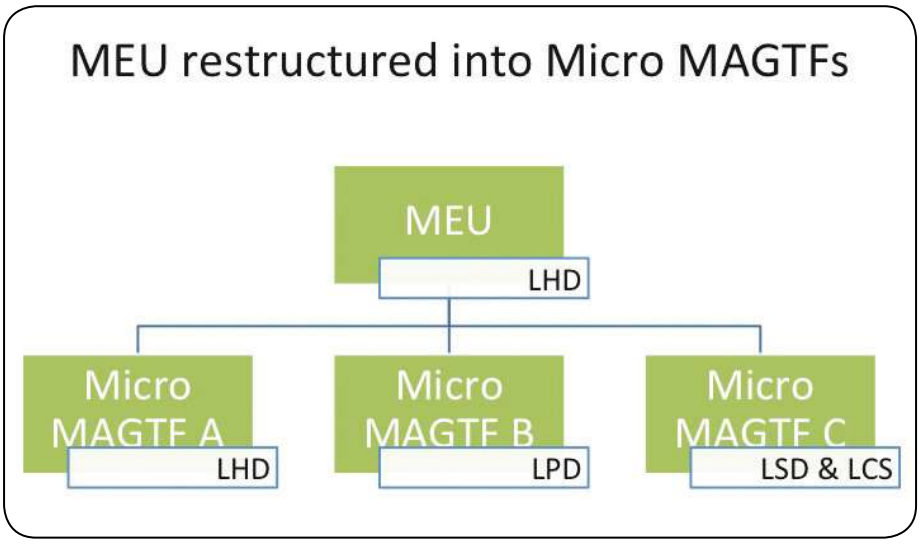

Figure 1.

ment and the demands from combatant commanders. Each Micro-MAGTF will be commanded by a present-day MEU major subordinate element commander, but will enjoy the flexibility built within the organization to go ashore via a combination of air, landing craft, and amphibious vehicle at the company level.

Instead of the careful attempt to build a fiefdom for each MSE aboard one of the three ships in the ARG, we should build a Micro-MAGTF commanded by the MSE commander on each ship. Though this may seem like old wine in new bottles, the fact remains that each ship requires a significant change to the task organization of embarked Marines. This task organization would allow for a balanced force across the four elements of the MAGTF to include careful consideration of connectors on each ship. Counter to conventional wisdom of assigning the mechanized rifle company on the LPD, the AAV platoon should be spread across the three ships so that in each rifle company, one platoon is lifted by AAV and two others by helicopter. Remaining elements of the GCE and LCE would go ashore by either helicopter or connectors like the utility landing craft or LCAC. An example of how to reconfigure a MEU into three Micro-MAGTFs by ship can be shown on the accompanying diagram (see Figure 1). The Micro-MAGTF aboard the LPD should be commanded by the GCE commander. Roughly the same size, the unit aboard the LPD would retain the ability to go ashore both by air and surface using a small portion of the AAV platoon, a reinforced LAV platoon, and several MV-22s (see Figure 2). The LHD remains the platform for the MEU staff and for the third Micro-MAGTF retaining the LHD shipboard command and control as well as the bulk of aviation assists. The ACE commander commands this Micro-MAGTF with the remaining company landing team (reinforced), a combat logistics company, and most of the rotary- and fixed-wing assets (see Figure 3 on next page).

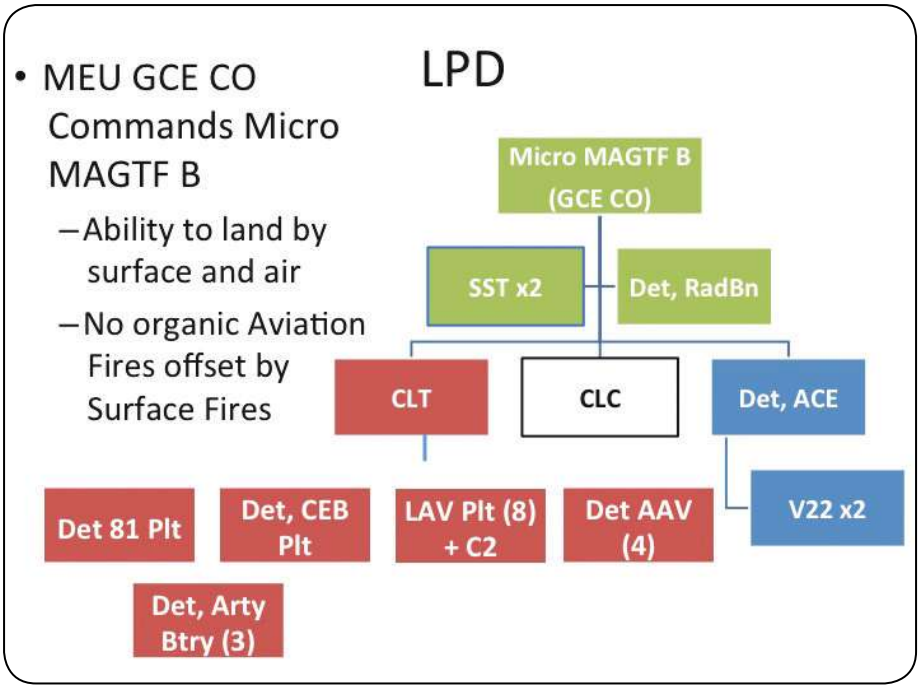

Figure 2.

MARINE CORPS Gazette
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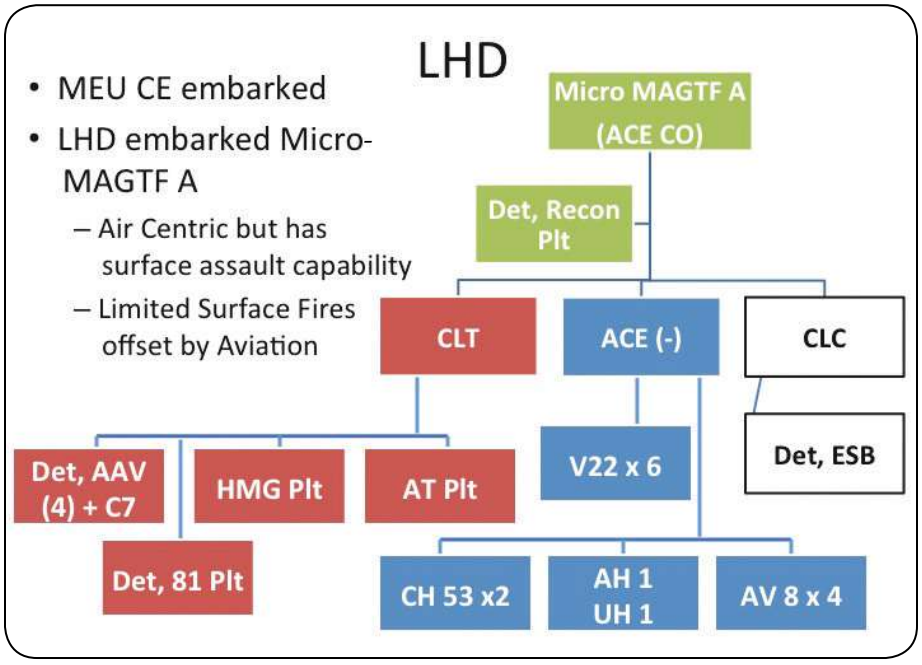

Figure 3.

One significant change from the current ship mix is the addition of a littoral combat ship. For such a small ship, the LCS provides a shallow water capability with tremendous helicopter deck space and storage areas. A Marine rifle platoon reinforced with a Javelin team, a scout/sniper team, and a pair of SH–60 helicopters makes this a credible force for security cooperation as well. The LCS should be paired with the LSD carrying a task organized CLT. The LSD should carry the parent rifle company of the platoon on the LCS. The MAGTF embarked on the LSD would be commanded by the LCE commander. It would have AAVs, a section of attack helicopters, an LAV platoon, the combat engineer platoon, the bulk of the Javelins, and a section of artillery (see Figure 4).

Risks and Mitigation

The Micro-MAGTF increases crisis response capability at the ship level. This is important because the contemporary operating environment in areas like the Pacific and Africa cover vast distances. Constitution of the Micro-MAGTF requires careful balancing of capability at the company level. The Marine Corps should embrace the Micro-MAGTF concept. This will lower overall risk in employing Marines from a single ship by balancing the capabilities of the landing forces from each naval platform. This is not a new problem for the Marine Corps. Doctrine of the 1940s and 1950s preached the primacy of the regimental landing team. Since then, the Corps of the 1980s saw the rise of the battalion landing team in conjunction with the MEU (special operations capable) program. Now the Marine Corps sees regular employment of the "split ARG" with a single ship often tasked with addressing very different challenges ranging from security cooperation to a crisis response situation. By balancing out the capability by ship and company landing team, the Marine Corps gives the MEU commander (and hence the combatant commander) options to decide upon. Meanwhile the MEU retains the capability to composite the MEU in the time of crisis along traditional lines. This is an important point because the MEU brand across the combatant commands is very strong. The MEU is still a force package for global force management, only reorganized internally. The challenge to achieve this level of decentralization remains in maintenance and support. The MEU and its Micro-MAGTFs will require a few more mechanics, avionics technicians, and bulk fuel assets in order to keep equipment and aircraft running on the ships to which they are distributed.

Conclusion

The Marine Corps has continually wrestled with the challenge of decentralizing landing force capability over time.

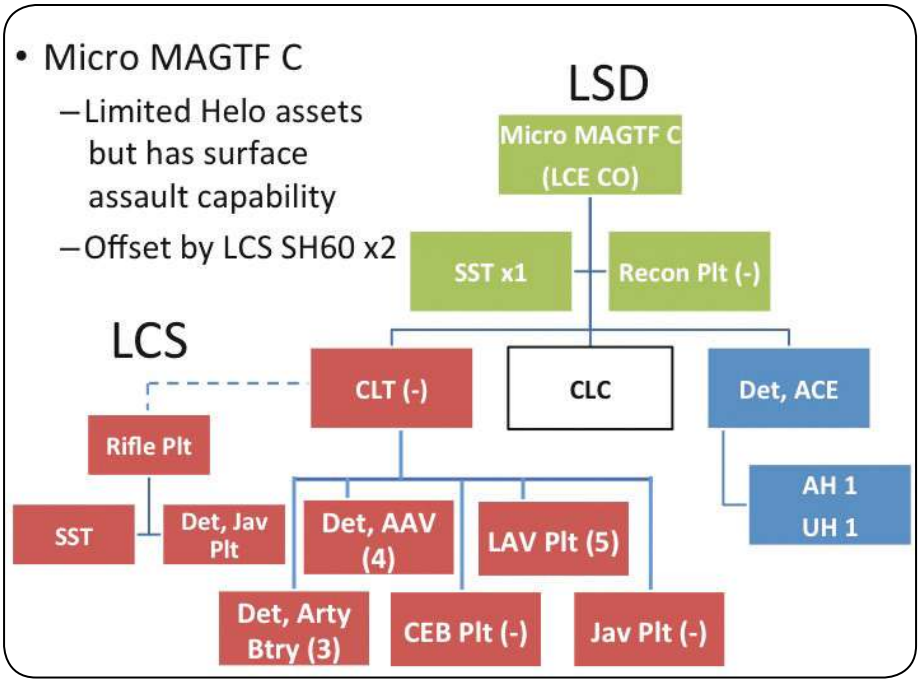

Figure 4.

A micro-MAGTF will provide more flexibility to combatant commanders. *(Photo by LCpl Richard Currier.)*

The revolutionary concept of battalion landing teams was born early in the Pacific War and validated in 1942 at Tarawa. Current demand signals from combatant commanders for the crisis response capability of MAGTFs puts the Corps at a critical crossroads. We can attempt to explain that although we have offered force packages like SP-MAGTF–CR in the past, the future reflects the need to have Marines ready at a moment's notice. Micro-MAGTFs exhibit the historical progressive thought of the Marine Corps in its effort to decentralize the way Marines operate and fight in the contemporary environment. Currently, the Marine Corps seeks ways to establish these Micro-MAGTFs, only now we must seek to employ them from ship. Ultimately, the Micro-MAGTF concept will provide more flexibility and capability to combatant commanders to respond to multiple crises in their area of responsibility.

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MEU CLB Standardization

Challenges to be addressed

by Maj Jarrad Caola

High-demand/low-density MOSs are not sourced to the MEU CLB until just prior to deployment. *(Photo by LCpl Evan R. White.)*

In the fall of 2010, the Marine Corps conducted a Force Structure Review in order to posture the Service for the complex and uncertain post-Operation Enduring Freedom security environment.[1] During this review, the Service weighed many factors and trade-offs in arriving at a force that creates opportunity and provides operational flexibility and responsiveness. One of their decisions was to establish permanent tables of organization and equipment for the MEU CLBs and command elements.[2] As of 1 October 2013, MEU CLBs have permanent structure; a change that brings with it many advantages but also some noteworthy challenges.

The development of permanent structure is just one of many initiatives that affect the MEU. Though worthy of future critical examination, the effects of the new LHA *America*-class amphibious assault ship and the Joint Strike Fighter has on the ways MEUs assign task-organized forces is beyond the scope of this article. Antiaccess/area denial capabilities described in the Service's recently signed capstone docu-

>Maj Caola is currently assigned to the Current Operations Group, Plans, Policies, and Operations Department, HQMC. He has previously deployed as the Operations Officer, CLB 26, 26th MEU, 2013; Company Commander, CLB 8, Afghanistan, 2011; Assistant Logistics Officer, 2dBn, 4thMar, 31st MEU/15th MEU, 2005/2006; and as a Platoon Commander, Truck Company, Headquarters Battalion, 1stMarDiv, Iraq, 2004.

ment, *Expeditionary Force 21 (EF21),* will force the GCE to disperse even greater distances and operate farther from shore which in turn places new challenges on the CLB, but that too is beyond the scope of this article.[3] Instead, our focus here will be on the immediate impacts of having permanent structure for the MEU CLB and recommendations to address the challenges that arise in this particular organization.

The new normal environment illustrated in *EF21* signals that we are going to be busy over the next 10 years operating in complex, littoral terrains. Marines and sailors are going to find themselves in parts of the world where economic, social, and political uncertainty cause crisis, extremism, limits to freedom of navigation and other events that affect our national interests.[4] It should come as no surprise then that these forces, along with burgeoning combatant command requirements and a lack of amphibious shipping, often caused MEU/ARG to disaggregate or conduct split operations in order to provide the appropriate response. Over the past five years, almost every MEU has conducted these types of operations, but they come with risk to command and control, supply, and maintenance.[5] MEU CLBs have worked to adapt to this method of employment by training and carefully considered organization for embarkation and assignment to shipping (OEAS).

Marines and sailors will find themselves in complex littoral terrains in the near future. *(Photo by LCpl Tyler Giguere.)*

Personnel

The establishment of the MEU CLB's new table of organization offers the largest benefit to standardization but also poses some of the greatest challenges. The Marine Logistics Group gains an operationally deployable headquarters and unit that can task organize for contingencies between MEU cycles. No longer are personnel going to receive temporary additional duty orders to the CLB, go through the arduous pre-deployment training package, deploy, and return to their parent commands 30 days after redeployment. The battalion will no longer fall to fewer than 120 personnel who were barely capable of maintaining the equipment, let alone able to conduct any of their mission essential tasks. They will not be forced into a position where they must prioritize which Service policies to enforce. Continuity of operations, knowledge, leadership, and many other programs that are required of organizations will now remain with the unit during its dwell period.

Prior to this fiscal year, MEU CLBs sourced personnel from throughout the MLG. The force generation process started 240 days prior to joining the MEU and finished at the 210 day mark with a couple of exceptions. Now MEU CLBs will be manned by the authorized strength report, not the T/O, and staffed at the approved CMC priority levels. This will cause some problems that the MLG will have to solve. By T/O, MEU CLBs rate 280 personnel, consisting of 67 different military occupational specialties. The unit is the proverbial "a mile wide and an inch deep" and provides the MEU MAGTF almost every tactical function of logistics. Issues arise, however, because unlike some other units, they are not an excepted command, meaning the unit is not staffed to 100 percent of its manning level. Current sourcing precedence is that MEU CLBs will be staffed at 95 to 97 percent of their manning goal.[6] This may not seem like a bad situation, but, when you factor in expiration of active service, the depth within many MOSs that provide critical enabling functions afloat and ashore, the result is some functions being covered by only one or two Marines. Disaggregated or split ARG/MEU operations further exacerbate this challenge. If the MEU CLB is not fully staffed, you may be confronted with the unenviable question of "Which fourteen or more MOSs could the CLB forego or have the MLG backfill?"

> ***By T/O, MEU CLBs rate 280 personnel, consisting of 67 different military occupational specialties.***

Another challenge with the force generation model is that Manpower and Reserve Affairs does not have to source personnel until 180 days prior to deployment. This practice makes achieving requirements laid out by *MCO 3502.3B*—block 1 and 2 completion, a firm grasp of the Marine Corps Planning Process, and capability to execute its core mission essential tasks prior to joining the MEU—very difficult.[7] Additionally, most Marines are only able to stay for one deployment before they are eligible for orders. The current cycle for a MEU is no less than 26 months: 6 months pre-deployment training program, 8 months deployed,

and no less than 12 months dwell. Just when the staff, platoon leadership, and Marines become proficient, some or all move on to other assignments and the LCE is not able to capitalize on the amphibious experience these Marines have gained.

Prior to OIF/OEF, a MEU CLB received the best Marines the MLG had to offer. Marines were boarded and competed to see who was the most technically proficient and worthy of a "Med Float" or a "WestPac." With the new T/O, many officers and enlisted will come straight from entry-level schools and an understandable lowering of MOS proficiency, at least early on in their tenure. One place in particular this will cause some challenges is within the MEU CLB's engineer platoon. The engineer platoon is a tightly knit corps of skilled trades: electricians, refrigeration mechanics, generator mechanics, water support technicians, etc. As with any trade, there is a logical progression from entry-level student to apprentice, apprentice to journeyman, and journeyman to chief/master. These Marines are only two or three deep in the platoon and their responsibilities are enormous. They are the ones who maintain the MAGTF's combat operations centers with power or produce water to sustain the force. Who is there to teach and mentor these Marines on how to correct voltage drops, phase balancing a generator in order to achieve maximum output, or troubleshooting the computer system on the tactical water purification system? The answer is no one. There is a combat engineer as the SNCO in charge and a 1302 officer in charge who, combined, have less than 2 days formal education on all utilities functions, not just electrical. The addition of an 1169 utilities chief would greatly enhance the support MEU CLBs provide the MAGTF. The utilities chief's technical capabilities will ensure the engineer platoon's ability to provide potable water, mobile electric power, environmental control units, and cantonment planning for the MEU. One question remains: which unit would he come from?

In the new MEU CLB's T/O, certain critical enablers are missing. The most significant is the military police (MP) detachment, which has now been moved under the CE both in the MEU and the MEF. MPs have come to the forefront of the modern battlefield as we engage with non-state actors. MPs must train to become proficient in their four primary missions: antiterrorism/force protection support, area security operations, law and order, and internment.[8] The capture, detention, and exploitation of non-combatants has become commonplace. The LCE typically plans, organizes, handles enemy prisoners of war, and runs temporary internment facilities. Additionally, MPs in the LCE are like the snipers in the GCE, providing a disproportionate effect to the size of the force. For the CLB, they are critical in planning and execution of all of MEU-assigned mission essential tasks: noncombatant operations, humanitarian assistance/disaster relief, and mass casualty. They provide force protection while conducting rear area, port, or forward arming refueling point security; they enable maneuver by providing route control and convoy security, and they are a well-trained cadre of weapons experts who increase the lethality of the LCE. The infantry, operating in a dispersed manner, will not be available to provide these capabilities.

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Equipment

The MEU CEs and CLBs are the only units in the MEF that habitually deploy with their home station equipment set. Recognizing this and prior to OIF/OEF, when the MEU needed a piece of equipment, the major subordinate commands from within the MEF sourced the very best that they had. However, over the past 10 years with focus on the two separate theater conflicts, MEUs received what was often third or fourth best. Also compounding the issue is that equipment sets were often rotated between the three MEU CLBs on each coast. This meant that equipment was exposed to the harsh salt environment at a high rate. The cumulative effect from this was that the life cycle of the equipment was greatly reduced and the next MEU CLB getting ready to deploy could not train on the equipment until a new one was sourced, which was often two to three months prior to deploying. The new table of equipment, once fully fielded, will assist in slowing down the corrosive effects from the environment and enable each CLB to train, but it will not abolish the need for the major subordinate commands to have to rotate equipment in order to extend the equipment life cycles.

Just like the new T/O, there are some indispensable gaps that need to be addressed. First, there are still many items that are mission essential that are currently being swapped from one MEU CLB to the next or not part of the T/E. Some examples are as follows: the NEO tracking system which provides accountability and visibility of personnel to the Department of State during an evacuation; third- and fourth-echelon tool kits for tanks, LAVs, and AAVs; and line haul equipment (logistics vehicle replacement systems and M870 trailers) that has the self-loading capability that reduces the need for material handling equipment and makes the MEU more expeditionary and less reliant on host-nation or U.S. Army support. This is particularly important since cargo destinations abroad tend to be in remote locations that may not be accessed by contracted tractor-trailers.

Another challenge is that some of the high-demand/low-density MOSs are

not sourced to the MEU CLB until just before compositing with the MEU, and their specialized equipment is left without someone to maintain it. The MEU's explosive ordnance disposal structure is captured in the LCE's T/O&E. Much of their specialized equipment such as search kits, robots, firing devices, and breathing kits need skilled operators in order to ensure the equipment is accounted for and ready for use.

Recommendations

First and foremost, the MEU CLBs need the same advocacy and support from higher headquarters they had before the war in Iraq and Afghanistan. Those from the combat support and service support fields need to capture and voice the current challenges they face and see that they are addressed where they can be discussed and solved, such as in the MEU operational advisory group.[9] This should be easy to achieve over the next year or two as the Service's priority shifts from those regions.

Next, policies and procedures need to be set by HQMC, Manpower and Reserve Affairs, in coordination with the MLG, to make MEU CLBs an excepted command in *MCO 5320.12H* and to lock some Marines in for two deployments. There are opportunities within many MOSs for career progression if staying for multiple deployments requires more than four years. The impact produced by these Marines while forward deployed a second time will far outweigh the impact on the personnel slating and assignment system and will increase our tactical proficiency in amphibious operations.

Next, add the MP detachment back into the LCE and employ them in accordance with their capabilities and doctrine. The loss of MP capability in the LCE creates tremendous risk and a disproportionate loss of other capabilities when substituted by other MOSs. Loss of capability also affects a unit's ability to execute its MEU mission essential tasks of providing HA/DR, NEO, and mass casualty capabilities to the MEU because they require extended integrated training prior to composite. They can either be added as permanent structure or be sourced from a law enforcement battalion as an attachment to the manning document.

Just as we would recommend adding a utilities chief to the CLB T/O, LCE planners and occupational field sponsors need to take a look at other high-demand/low-density MOSs and review them in light of how *EF21* will change the way in which the Service will operate. For instance, do we need to buy back more motor transportation capacity in the MLGs, or would adding more traffic management office specialists, welders, and generator mechanics add greater benefit to these strained communities? Looking at the concept of logistics for some of the newly formed SPMAGTFs, such as crisis response, could assist in identifying some of these emerging requirements. Recommendations should be made to the MLGs, so if there is a fiscal year 2016 buyback, the LCE is well-positioned to respond to the changing operating environment. We need to create policies and procedures at the MEF and MLG levels to assist the MEU CLBs in equipping and maintaining principal end items that are expeditionary and highly adaptive to meet the supported units' needs. This may mean establishing criteria that would rotate equipment periodically in order to extend the life cycle of equipment. The ideal time to do this would be shortly after redeployment when the MEF conducts its inspection 15 days after arriving back in CONUS. Additionally, we need to create methods to change the equipment set outside of the T/O&E change request process so that the unit can remain responsive to missions in the new normal operating environment.

Similarly, we must maintain a senior EOD SNCO within the CLB during the off cycle. This will assist EOD in maintaining their link to the MEU, create training opportunities for them prior to composite, and will ensure there is always a full and ready complement of EOD equipment available for use.

Conclusion

The way the MEU CLBs currently operate is effective, but it can be much better. The new MEU CLB T/O&E greatly benefits the MEU and the Service. The challenges presented by this new permanent structure are not insurmountable, even in the face of the current fiscal realities. The threats associated with the current and future operating environment will require every single Marine within the MEU CLB to be highly trained, capable of being rapidly deployed, and equipped with the most ready and expeditionary equipment. It is imperative that stakeholders from the Service-level on down take steps so that this unit can evolve to meet these new threats.

Notes

1. Department of the Navy, Headquarters United States Marine Corps, *Reshaping America's Expeditionary Force in Readiness* (Washington, DC, 14 March 2011), ii–iii.

2. Department of the Navy, Headquarters United States Marine Corps, *MEU Operational Advisory Group Topics 13.2* (Washington, DC, 11 December 2013).

3. Department of the Navy, Headquarters United States Marine Corps, *Expeditionary Force 21: Forward and Ready; Now and in the Future* (Washington, DC, 4 March 2014), 21–22.

4. Ibid., 10–11.

5. Department of the Navy, Headquarters United States Marine Corps, *Trends in Command Element Lesson and Observations* (Washington, DC, 8 May 2012).

6. Department of the Navy, Headquarters United States Marine Corps, *Marine Corps Order 5320.12H, Precedence Level for Manning and Staffing* (Washington, DC, 4 June 2012).

7. Department of the Navy, Headquarters United States Marine Corps, *MCO 3502.3B, MEU and MEU(SOC) Pre-Deployment Training Program* (Washington, DC, 30 April 2012), 4–1 to 4–2.

8. Department of the Navy, Headquarters United States Marine Corps, *Marine Corps Warfighting Publication 3-34.1, Military Police in Support of the MAGTF* (Washington DC, 13 October 2000), 1–1 to 1–3.

9. Department of the Navy, Headquarters United States Marine Corps, *Marine Corps Logistics Road Map 2013*, (Washington, DC), 3, 7, 8, 23–27.

Aviation and Ground Logistics

A cross-disciplinary perspective

by LtCol Randy Hodge, USMC(Ret), Maj Patrick Williams & Capt Chris Alfaro

This article offers some unique perspectives on aviation and ground logistics from the viewpoints of two officers working at Headquarters Marine Corps—one an aviation maintenance officer assigned to the Installations and Logistics Department, Logistics Plans, Policies, and Strategic Mobility Division, Logistics Vision and Strategy Branch; and the other, a ground logistician assigned to the Aviation Department, Logistics Support Branch, Aviation Logistics Strategy and Plans Section. Having both served in these cross-disciplinary billets for more than one year, we'd like to pass along a few observations highlighting some of the significant institutional differences between Marine Corps aviation and ground logistics constructs. *Expeditionary Forces 21* states, "The characteristics of Marine Corps logistics under *Expeditionary Force 21* should evolve to be fully capable of being integrated with naval logistics while being interoperable with joint, theater and applicable multinational logistics capabilities."

>LtCol Hodge was serving as the Assistant Chief of Staff, G–4 (Logistics), 2dMarDiv when he retired from the Marine Corps in 2005. He is a contractor providing MAGTF logistics integration support to HQMC and the Operating Forces.

>>Maj Williams is a ground logistics officer currently assigned to HQMC Aviation, Logistics Support Branch. His past assignments include company commander with CLB–6, deploying to Afghanistan in support of Operation Enduring Freedom 10–1; and operations officer with 2d Supply Battalion, deploying to Afghanistan in support of OEF 11–2.

>>>Capt Chris "Vito" Alfaro is an aircraft maintenance officer currently assigned to HQMC Installations and Logistics, Vision and Strategy Branch. His past assignments include HMM–268 "Red Dragons" Assistant Aircraft Maintenance Officer, deploying onboard the USS* New Orleans *LPD–18, 11th MEU; and Power Plants Officer for MALS–39.

Preparing to deploy a palletized load. *(Photo by Cpl Reba James.)*

As we evaluate the merits of our respective disciplines in the paragraphs that follow, be mindful that our overarching intent is to stimulate conversation among all logisticians to consider ways to improve MAGTF logistics efficiencies in order to maximize readiness across the MAGTF. Only through this integration will Marine Corps logistics truly become inter-disciplinary, paving the way for further integration opportunities with naval and joint capabilities.

Unity of Effort

Marine aviation logistics is fully integrated within naval aviation logistics, which is integral to the Naval Aviation Enterprise (NAE). The NAE is a partnership of naval aviation leaders and organizations from across the Navy and the Marine Corps who are committed to working together collaboratively to advance and sustain naval aviation warfighting capabilities at an affordable cost.[1] The enterprise framework (see

Figure 1) brings these stakeholders together in order to foster better decision making for the benefit of naval aviation as a whole. Since its inception in 2004, the NAE has continually evolved and strengthened as an enterprise—its success is largely attributable to a common set of systems, processes, and metrics used to drive performance and behavior in optimizing support to the Fleet. The NAE promotes and rewards innovative thinking and actions spawned by a shared mission and guiding principles:[2]

- Consistently focus on improved readiness and increased efficiencies.
- Systemically apply cross-functional process thinking.
- Establish and maintain process discipline.
- Use consistent, integrated, and hierarchical metrics that allow fact-based analysis.
- Ensure full and consistent transparency of data, information, and activities.
- Establish and maintain accountability for actions and results.
- Understand single fleet-driven metric: naval aviation forces efficiently delivered for tasking.
- Commit to active participation in scheduled events and tasks as a priority.

The enterprise approach is a proven way of doing business that enhances coordination and collaboration to achieve effectiveness, emphasizes efficient use of resources, and provides information to aid leaders in decision making. Marine aviation logisticians routinely receive enterprise-level support in the execution of their functional tasks. Moreover, when forward deployed, they can count on near-daily communications with the support infrastructure of the entire NAE to maintain readiness.

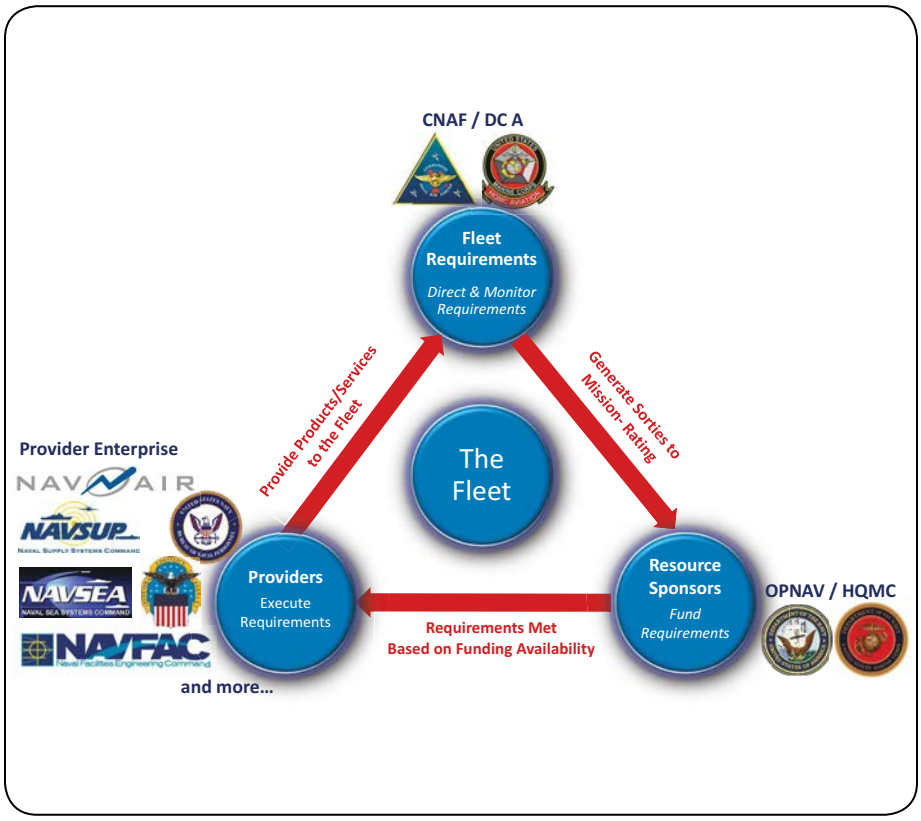

Figure 1. Naval aviation enterprise framework.

Loading out aviation support gear. *(Photo by SSgt Justin Pack.)*

Although Marine Corps ground logistics hasn't fully embraced an enterprise construct, it is clearly moving in that direction—at least conceptually. The Marine Corps Installations and Logistics Roadmap (MCILR), published in 2013, acknowledges the value of developing an enterprise approach to optimizing MAGTF readiness. Specifically, as stated in the MCILR, "We will develop an integrated, enterprise approach to MAGTF readiness that encompasses the entire logistics chain."[3] Tangible progress in that direction, however, has been slow to develop. Opportunity, on the other hand, is limitless and initiatives such as Naval Logistics Integration and MAGTF Logistics Integration are actively seeking to integrate logistics processes among naval partners and within the MAGTF, respectively.[4] Ground logisticians have already adopted some naval processes

that have been in use by Marine aviation for many years (e.g. cargo routing and retrograding reparables). The fact remains there is still much more opportunity for increased cooperation and alignment of logistics processes across the MAGTF. As MLI continues to work initiatives designed to integrate logistics across the MAGTF, continued ground logistics advocacy is necessary to move toward an enterprise approach.[5]

Process Ownership

Supply and maintenance are two of the major logistics functions performed within both the aviation and ground logistics domains. Many of the processes for specific functional tasks, however, are very different. One of the more conspicuous examples is the Class IX [repair parts] allowancing process. When a Marine aviation logistics squadron (MALS) is tasked to develop an aviation consolidated allowance list for an ACE deployment, a standard allowancing process is employed under the control and supervision of Commander, Naval Air Forces (NAF) as the process owner. CNAF is the aviation type commander for each type/model/series (T/M/S) within all Navy and Marine Corps aviation units. Type commanders exercise administrative control of certain types of assets (e.g. ships, submarines, and aircraft) assigned to the Pacific and Atlantic Fleets. CNAF is responsible for the material readiness, administration, training, and inspection of aviation units and squadrons as well as for providing operationally ready air squadrons.[6] Naval Supply Systems Command—Weapons Systems Support (NAVSUP–WSS) is also a key player in the aviation allowancing process, providing analytical, modeling, and material support to Marine aviation. Others involved in the process include CNAF's Aviation Outfitting Section (N414–Supply) and Aviation Readiness Section (N42–Maintenance). Marine squadrons and MALS maintenance and supply officers also participate in the process from end-to-end.[7] The level of effort afforded to the aviation allowancing process, aided by the process owners in an NAE framework, consistently provides superior results, with gross supply effectiveness for the Marine aviation typically at or near 75 percent.[8]

Conversely, when a combat logistics battalion (CLB) is tasked to develop a consumable class IX block for ground equipment, the CLB supply and maintenance officers work with the supply management unit to develop a parts block that is typically ad hoc. There exists neither a standard process nor a process owner within the ground logistics construct for allowancing. Class IX support concepts and allowancing procedures vary between MEFs and subordinate commands within each MEF. Secondary item (reparables) allowancing receives a good degree of oversight from deploying units' higher headquarters and from Marine Corps Logistics Command due to the high cost and limited availability of these items, but there is no single process owner for allowancing in support of consumable ground equipment maintenance.[9] Perhaps indicative of the level of effort and oversight afforded this functional task within the ground logistics community, fill rates for class IX consumable blocks are typically at or below 15 percent for most MEU deployments, whereas fill rates for secondary reparable blocks are typically above 80 percent.

Supply and maintenance are two of the major logistics functions performed within both the aviation and ground logistics domains.

Command Relationships

Marine aviation logistics and the NAE share a common goal and are motivated by a single fleet-driven metric, the foundation of which is best expressed in Dr. Eliyahu M. Goldratt's book, *The Goal: A Process of Ongoing Improvement*. There are countless things going on within an enterprise, but being able to find and focus on the critical few is most important to optimize resources.[10] The elements within the enterprise must align the way they operate and work interdependently to achieve sustainable success. Marine aviation logistics maintains a constant focus on the readiness of the MAG. The MALS commander works directly for the MAG commanding officer, an aviator who drives the business decisions of the command through metrics that continually measure the health of the MAG. The MAG commander works for the MAW commanding general who is also an integral participant in the NAE. The Commander, Naval Air Forces and the Deputy Commandant for Aviation direct and monitor fleet requirements; OPNAV and HQMC as the resource sponsors, fund requirements; and the systems commands (NAVAIR, NAVSUP, and NAVSEA) as the providers, execute requirements.

A fundamental difference between aviation logistics units and any ground logistics unit lies within the scope of their mission, and subsequent command relationships. While a MALS provides direct support to a MAG, a CLB or combat logistics regiment (CLR) provides nonaviation peculiar support functions that are not organic to, or beyond the capability of, the GCE and ACE units. Ground logistics units often maintain a support relationship with the GCE when deploying as part of a MAGTF, but they operate under the command and control of the MAGTF commander. Once deployed and depending on its size and task organization, the MAGTF LCE is at times cut-off from its parent unit and thus any expectation of reach back support. While this is a progressive step toward building self-sufficiency within MAGTFs, it may be premature without an enterprise construct firmly in place to help orchestrate the many logistics enablers that are required to sustain MAGTF readiness. Institutionally, common metrics do not exist among ground logisticians, thus they are forced to seek guidance and sup-

port rather than obtaining anticipatory support from an enterprise that is structured with a focus on sustaining readiness.

Conclusion

Although there are similarities between aviation and ground logistics, some of the institutional differences between the two disciplines are borne out of necessity, while others are not. We have witnessed many innovations in our aviation and ground logistics processes over the past decade, and while independently successful, we are not standardized where standardization makes sense nor are we integrated as much as we should be. Operating concepts such as disaggregated MAGTF operations and seabasing, along with current fiscal constraints, underscore the need to further modernize and integrate MAGTF logistics. Efforts such as MLI are critical to operational success and the efficient stewardship of resources, but we must continue to advocate creative thinking toward MAGTF logistics. If we as a Corps seriously endeavor to develop an integrated, enterprise approach to MAGTF readiness that encompasses the entire logistics chain, we must improve the integration of our air and ground logistics processes.

Notes

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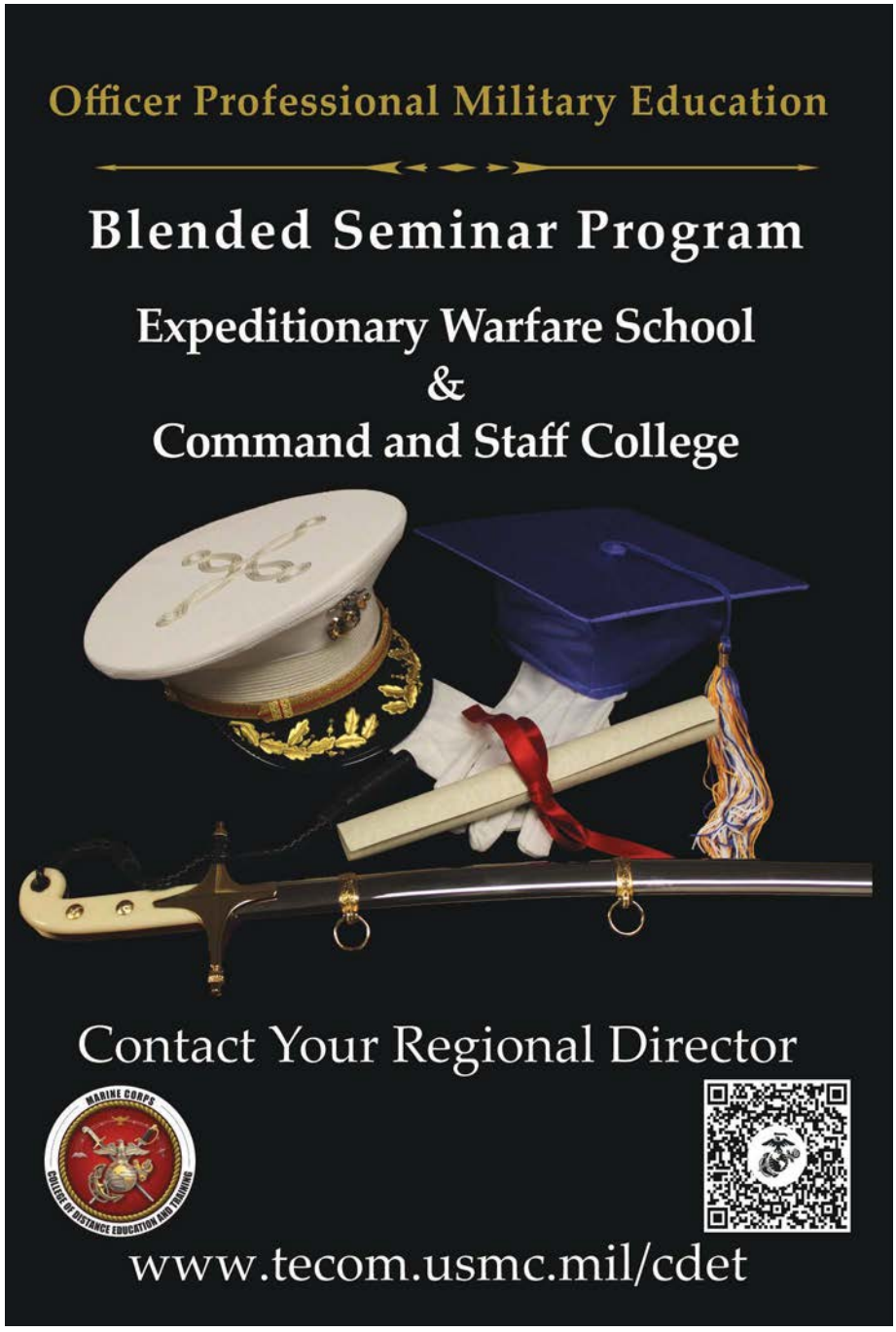

MCLB Barstow

Logistics capability and training

by Maj Donato S. Powell, Karen L. Gray & Chad C. Hildebrandt

Since Marine Corps Logistics Base (MCLB) Barstow's inception as Marine Corps Supply Center in December 1942, the installation and staff continue to provide effective logistics through infrastructure designed for throughput. The MCLB is positioned on a national transportation network, with intermodal freight, storage, equipment, and maintenance facilities. Barstow sits astride the busiest and well-developed transportation infrastructure in the United States; the infrastructure combines air, rail, and interstate highway network with access to well-developed port facilities. Barstow Marines and civilians of MCLB Barstow have utilized innovative techniques and ideas to overcome obstacles they have been tasked with accomplishing. The Marines and civilians stationed here today are no different. With a military staff of less than 100 personnel, and a civilian staff upward of 2,000 personnel, MCLB Barstow proves to the rest of the Marine Corps that accomplishing the mission with efficiently structured personnel is not only possible but can be duplicated and excelled throughout the Marine Corps.

This article discusses MCLB Barstow's strategic logistics capability and its tie in to the Marine Corps' vision for the future as an effort to plan for possible scenarios where operational maneuver from the sea and seabased logistics sustainment become a fully implemented reality. The main topics of discussion are Marine Corps training opportunities, rail operational logistics and training, benefits of rail over tractor-trailer, and cost savings recommendations. MCLB Barstow provides the strategic link from CONUS to the objective necessary to carry out the Marine Corps' strategic vision.

>Maj Powell is an 0402 Logistics Officer with a secondary 8850 Operations Research MOS. He is currently serving as MCLB Barstow Installation's Operations Officer. Maj Powell has deployed to Iraq and Afghanistan.

>>Ms. Gray is the Strategic Planner/CPLNO for MCLB Barstow.

>>>Mr. Hildebrandt is the Rail Operations Supervisor for the MCLB Barstow. He previously served as the Nuclear Rail Supervisor for the Bremerton Navy Shipyard. He is a former Marine and deployed as an 0311 to Operation Iraqi Freedom 1 and 2, and to the Horn of Africa.

MCLB Barstow provides the link from CONUS to the area of operations. *(Photo by author.)*

Marine Corps Training Opportunities

Over the last 15 years, the Marine Corps has developed new concepts and doctrine to support the elimination of the seizer of beachheads (and the use of those beachheads in order to build up supplies) as the type of amphibious landing operations implemented in past conflicts (e.g., World War II–Pacific Campaign; Korean War–Inchon landings; Gulf War, etc.). After 9/11, 450 miles inland, the Marine Corps (under command of then-BGen James N. Mattis, CG, 1st MarDiv 2003) seized Kandahar airport thereby validating operational maneuver from the sea or ship-to-objective maneuver (STOM) with its first real-world practical application in conflict. In a 2011 memorandum to the SecDef, Gen James F. Amos stated, "Operating as a team, amphibious forces provide **operational reach and**

agility, they 'buy time' and decision space for our national leaders in time of crises." Seizing a beachhead is not ideal for the modern warfare in these times and access to ports poses restrictions that are sometimes not acceptable given the associated risks it brings to bear on the United States' military objectives.[1] The following are achievable practices in order of least favorable: Access to objective through an ally's nation shores, a combination of seizing beachheads and limited STOM, and a complete implementation of ship-to-objective maneuver.[2] Seabased logistics will be the catalyst for achieving a complete implementation of STOM. As mentioned, by eliminating a cumbersome, costly, and oftentimes dangerous concentration of supplies and personnel on the beach with STOM, the Marine Corps can maximize the use of its assets and personnel, which in turn contributes to the safety and efficacy of maneuver. The initial costs associated with modernizing the required transportation vessels and additional studies associated with modern vessels will be a fiscal challenge for Congress in these times of economic trials, but well worth the benefits to our Nation's security. MCLB Barstow's strategic tie in is critical to the success of this vision, CONUS to the objective.

Figure 1 illustrates the mapping process for seabased logistics. The Marine Corps has two logistics depot bases that are located in Albany, GA, and Barstow, CA. Barstow, where the supplies originate, is a critical transportation hub with ground and rail access to west coast points of departure. Supplies are transported via rail and highway to the nearest seaport of debarkation in preparation for transportation by commercial maritime ships or flown directly from CONUS by way of aerial ports of debarkation to the advance logistics support site (ALSS). The maritime ships will deliver all supplies to the ALSS, sometimes called forward logistic site (FLS) and from there to the seabase.

As one of two logistics bases, the Marines and civilian staff at MCLB Barstow have been working to identify potential training opportunities that will benefit the Marines' expertise and further the Marine Corps' strategic vision. While some of these opportunities are moving quickly forward and being utilized by other commands, there are a few key areas that are just beginning to surface.

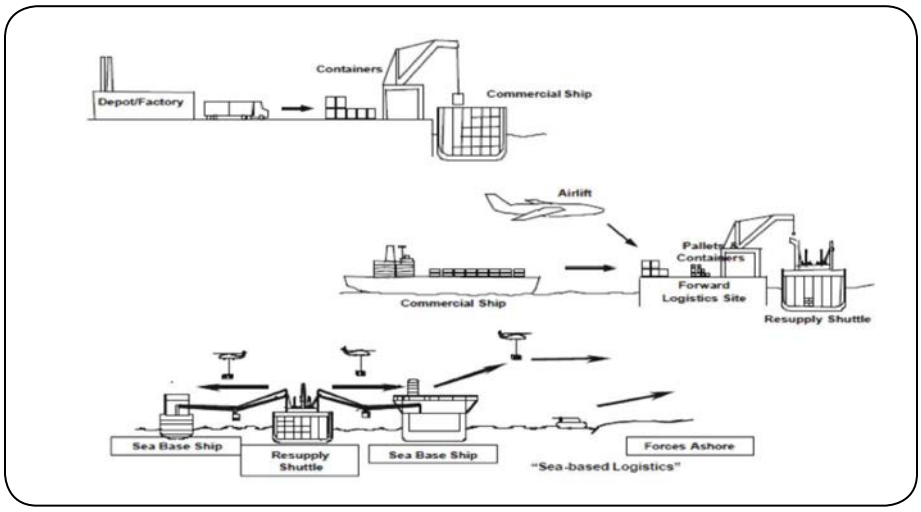

Figure 1. Process map diagram—
CONUS (MCLB Barstow) to the objective; logistics support.

Marine Corps Ranges of the Western United States (MCRWUS)

MCRWUS describes MCLB Barstow's infrastructure, services, and support to Marine Corps forces, tenant activities, and other customers. MCLB Barstow is located in the San Bernardino County high desert of Southern California, 134 miles east of Los Angeles and 152 miles southwest of Las Vegas, NV. The ranges at MCLB Barstow occupy 2,438 acres. In addition to providing small unit level training opportunities, MCLB Barstow will support the region's amphibious and littoral training capability. This includes supporting amphibious operations training in the urban littorals and forcible entry from the sea. From a regional range perspective, this includes "access to sea space, access to littoral and inland airspace corridors for aviation training, and range capabilities that support combined arms, live fire training utilizing naval surface fires."[3]

Additionally, airspace access and encroachment remains a vital concern.

Additionally, airspace access and encroachment remains a vital concern. Over the last several years, Barstow has had increased requests from units to perform training affiliated with rifle qualification. This includes the capability to support a company-sized unit with rifle/pistol qualification, annual training, barracks, and other facilities for the use of an indoor simulated marksmanship trainer and Marine Corps Martial Arts Program. Training support is not limited to rifle ranges; the Marine Corps Depot Maintenance Command–Production Plant Barstow has been hosting training for multiple operational units. Marines from I-MEF, Mexican Navy sailors, and other organizations have stayed in the training barracks for intensive vehicle maintenance training on the production line. Both active duty and Reserves have also received training in transportation and rail operations over the last decade. It is important to note that we were not simply planning for expanded training missions; the staff has continued to be engaged in planning for logistics workload surge due to retrograde and reset as well as long-range facilities development with tenants such as the Fleet Support Division and Defense Logistics Agency. In tandem, we have been developing transportation plans to distribute

equipment staged on Barstow through west coast ports to support the Far East littoral.

Under the leadership of the operations officer, strategic planner, and rail supervisor, MCLB Barstow oversees the largest rail capability in the Department of Defense. Over the last 12 months, MCLB Barstow operations have transformed rail operations merely from an internal rail yard to a strategic capability regularly used by the United States Transportation Command. After a directed Business Performance Office review by the Commanding Officer, an Environmental Operations section was created within the Operations Department that significantly improved staff action coordination, positioning MCLB Barstow to provide responsive training to MEF forces while complying with strict environmental policies.

Rail Operational Logistics and Training

MCLB Barstow is home to the largest railhead within the Department of Defense's system worldwide. Barstow is two noncontiguous parcels of land, Nebo Annex and Yermo Annex. Each parcel has a main switching yard. The base has the ability to receive over 1,500 railcars simultaneously. The Operations Department oversees rail operations as an integral part of both logistics and training. Rail operations are provided through a skilled crew of eight civilian personnel. The operations conducted at the MCLB Barstow railhead do not solely support Marine Corps movements due to the lack of rail infrastructure and skilled crew on other installations. Over the years, all military branches and numerous Department of Defense agencies have routinely requested support. With this strategic impact and influence, the rail head supports rotational units headed for the National Training Center (NTC), Fort Irwin, CA, Marine Corps equipment returning from theater or being inducted into the maintenance production plant, equipment and assets under the care of DLA distribution from all Services, and equipment for final disposition such as foreign military sales or destined bombing ranges across the southwest. Barstow is often the railhead of choice because we are easily accessible with highways that can support oversized transportation loads. Many installations have rail but do not maintain a rail crew; Barstow remains a vital strategic asset for material movement.

Over the last year, the installation has initiated some unique training that can only be provided at MCLB Barstow. Working in conjunction with local Marine Corps units from Camp Pendleton, CA, Barstow is conducting training missions with Marines of the 04XX logistics community. This training expounds on the 1-day course provided at Camp Johnson Logistics Operations School and provides on-the-job training with up-to-date real-world scenarios. The railhead at MCLB Barstow is currently averaging approximately 60 million pounds of freight each month. With this amount of traffic and the diversity in the equipment being moved, for the Marines' training, this enables them to see a wide variety of techniques and processes in a short period of time.

The training curriculum being utilized at MCLB Barstow was designed and tailored specifically for the 04XX logistics community Marines. Ranging from the most basic of tasks to overall rail yard management, the Marines are completely integrated into the rail operations of embarkation/debarkation of U.S. Army rotational units destined for the NTC. As the only railhead that services NTC, all military units are coming to and from NTC by rail traveling through MCLB Barstow. This exposure, coupled with the sharp increase in equipment returning from theater and being redeployed after being serviced at Marine Depot Maintenance Command–Production Plant Barstow aboard MCLB Barstow, gives the Marines a productive two weeks of training. Working hand-in-hand with their Army counterparts assigned to the Movement Control Company, also stationed aboard MCLB Barstow, the 04XX Marines are taught the proper methods of blocking, bracing, and securement of chains. Additionally, they are also taught how to load build with nothing more than an equipment list and dimensions of vehicles in addition to characteristics and capabilities. The Marines are brought up to speed on the latest techniques in rail yard management, which include the coordination of multiple military and civilian organizations to accomplish the mission. Working with organizations such as Surface Deployment and Distribution Command, Quality Transportation Services, Marine Corps Logistics Command, Fleet Support Division, DLA, and other local contractors and Department of Defense agencies, the Marines truly begin to understand the complexities of rail operations in addition to seeing the advantages of rail operations.

Future Rail Training Opportunities

The Operations Department for MCLB Barstow reached out to several Marine Corps subordinate commands to determine if training being provided for locally stationed Marines would benefit Marines stationed outside of California. Most recently, liaison has been established with the Marine Corps Logistics Operations Group (MCLOG) at Twentynine Palms, CA. MCLOG provides a wide variety of training to SNCOs and officers in order to enable the integration of logistics and support training that will benefit the MAGTF's mission. After meeting with MCLOG and emphasizing potential training available at MCLB Barstow, planning for future training curriculums for the students of MCLOG at MCLB Barstow is currently in progress.

Working with the Future Operations Director, Logistics Operations School at Camp Johnson, NC, the rail section supervisor is developing an intermediate- and advanced-level course for enlisted Marines within the 04XX community. With guidance from the CO, Barstow, direction from the Logistics Operations School staff, Training and Education Command training instructions and manuals, and incorporating Association of American Railroads and real-world rail scenarios, MCLB Barstow's goal was to have a viable training product solidified by the end of 2014 calendar year. This training will be intended for all logisticians. This training product will have significant cost savings to the Marine Corps for many years to come.

With the ability to billet the Marines for training, the availability of 10 training cycles per year and the availability to train up to 20 Marines per training cycle, the widespread impact of this training will be felt in a very short time. The rail section of MCLB Barstow is not only focused on completing the mission, but they are also focused on and dedicated to the positive impact they will have on the Marine Corps' strategic vision. Through proper training and mentorship of the Marines in the logistics community, the Marines feel they can provide rail training in their logistics field of expertise which is lost to so many shortly after departing MOS school.

Benefits of Rail over Tractor-Trailer

As our economy attempts to rebound from the recent recession and the wars in Iraq and Afghanistan begin to wind down, the reduction and shrinking of budgets is being felt across the board. With this being said, units are exploring methods to overcome challenging ways to maintain their readiness while reducing costs simultaneously. For the logistics community, rail operations can be that very answer, depending on the materials and quantity needing to be shipped. Why should we choose rail over truck and what are the advantages of utilizing rail? In February 2014, President Barack Obama pushed for an initiative to develop better fuel economy among the country's trucking fleets.[4] While this is a lofty goal, the real answer in savings is in rail transportation. No matter what changes are implemented, rail transportation of large volumes of commodities will always be more efficient than trucking. While freight trains have doubled fuel efficiency over the last few decades, tractor-trailers remain nearly as inefficient as they were in the 1970s. The average semi fuel consumption rate was 5.6 miles per gallon in 1973, and today, that has improved to 6.5 miles per gallon.[5] Creating a sound logistics strategy supported by efficient and reliable transport methods ensures the arrival of our equipment to its destination in a timely manner. An efficient system saves time, resources, and money while providing a clear competitive advantage. What does this mean for the Marine Corps and other Services? It equates to the need for an entire rethinking of the logistics strategy currently in place.

One of the biggest issues we encounter when speaking with other bases and units is that the logistics community does not fully understand the capabilities and advantages of rail operations. As Marines, it is easier and quicker to call a trucking company to come in and move our equipment, but what we fail to realize is that those costs are significantly increased and are often times not the right choice. So, how do we determine what is the right choice? Working with bases and units across the U.S., the rail operations section is helping identify the requirements of the units and where costs savings can be generated. Understanding the capabilities and advantages of using rail, the rail section can offer insight most installations do not possess. While more often then not, rail is vastly more inexpensive than truck transport, there are times when truck transport is the right choice. This is where the rail section can assist in identifying the correct mix.

An efficient system saves time, resources, and money. . .

So, what does this all boil down to? It is completing the mission while simultaneously minimizing costs for the Marine Corps. Hildebrandt's recent cost analysis conducted at MCLB Barstow of accessorial services shows a potential cost savings to the U.S. Army of $2.7 million dollars and a potential savings to the Marine Corps of $700,000 semiannually.[6] This can be achieved by minimizing the use of contractor services and training the Marines and soldiers to do the work of their MOS.

Cost Savings Recommendations

As with any business, corporation, or organization, strategic planning is vital to long term success, the Marine Corps is no different. How are we going to get the equipment required by the warfighter in the quickest and most efficient way possible? How is the current logistics infrastructure being utilized and how can it be improved upon? Walking away from the "norm" is sometimes one of the hardest things to do for any established organization. For the last 12 years, all U.S. Services have been in a "need it now" paradigm due to deployments and requirements on the front lines. As the conflicts gradually dissipate, along with the budgets once overflowing, how do we get the "biggest bang for our buck?" Working with units from all Services and Department of Defense agencies, the rail section of MCLB Barstow has proposed significant cost savings. Below is a list of three recent cost savings recommendations made by MCLB Barstow's rail section.

- A U.S. Army Stryker Brigade was deploying to NTC. This move was a surface deployment with tractor-trailer support initially contracted from National City to Fort Irwin, CA. After given the excessive cost of this move and the impact on traffic patterns and emissions in the Southern California basin, a solicitation was submitted for rebid utilizing rail. The initial costs savings of this move for round trip service from National City to Fort Irwin, CA, would have been $1.2 million dollars. Notwithstanding the cost savings, this would have had a profound positive impact on the congestion and emissions in Southern California.
- A Marine Corps subordinate unit was planning on shipping their heavy tracked equipment from Camp Pendleton to Fort Irwin in support of the recent Exercise Desert Scimitar 2014. Once contact was made with that command, a rail cost comparison was presented to the unit. The cost for moving this equipment via tractor trailer would have been $497,200, and the cost of moving this equipment via rail would have been $105,600, a cost savings of $391,600. Additionally, the first group of Marines training with MCLB Barstow rail section from Combat Logistics Regiment 17 completed their 2 weeks of training and could have been the course of ac-

tion utilized to conduct the loading operations at Camp Pendleton. This cost savings was never realized due to the movement of Desert Scimitar from Fort Irwin to Twentynine Palms.

- A second Marine Corps subordinate command was planning a return trip to Camp Lejeune, NC, from Fort Irwin when the rail section was contacted by the Army Installation Transportation Officer. The concern was the excessive costs of truck transportation with such a minimal amount of vehicles involved. The rail section proceeded to secure a cost estimate savings for a one-way move from Fort Irwin to Camp Lejeune. The initial cost to move this equipment via tractor-trailer was $242,192, and the cost for moving this equipment via rail was estimated at $52,100, a cost savings of $190,092.

Recent implementations from U.S. Army Forces Command and Transportation Command have highlighted the cost savings in rail utilization. In the past year, units destined for NTC have been advised to minimize the use of assessorial contract services as well as line haul services when moving units to and from NTC. Where units previously contracted the entire downloading and uploading of trains to civilian contractors, the units are now utilizing their soldiers to provide these services with the oversight and guidance of the Movement Control Company and Rail Operations section at MCLB Barstow. While there is always room for further improvements, this was definitely a move in the right direction. With the assessorial costs ranging from $250 to $700 per railcar, the costs will immensely increase for large volumes of commodities if their own soldiers do not conduct the work. If the Marine Corps benchmarks this process and addresses the issue of assessorial services in addition to line haul movements, the cost savings will be optimal and assist in the appropriate allocation of Marine Corps funding requirements.

Conclusion

The Marine Corps' doctrine has shifted over the last 75 years from its traditional amphibious nature of hitting the beach and stockpiling its supplies. The *Operational Maneuver From the Sea* concept ideally takes its Marines and equipment from the sea directly to its objective ashore which prevents unwanted operational pauses. Combat operations in Operation Iraqi Freedom demonstrated difficulties when sustaining forces from logistics bases ashore. For example, advancing the Army and Marines to Baghdad in Iraqi Freedom consumed large amounts of fuel and ammunition. The resupply could not replenish supplies and an operational pause began on 29 March 2003.[7] In order to prevent similar operational pauses in the future, rapid movement from the sea to the objective must be implemented. MCLB Barstow's training initiatives and activities are in support of the Marine Corps' strategic vision and training objectives and are enabling the Marine Corps to meet the training requirements that will support the concept of STOM.

This is accomplished through training initiatives and activities identified through a comprehensive environmental assessment (EA) aboard MCLB Barstow in tandem with Marine Corps Base Camp Pendleton's environmental assessment, joint logistics over the shore (JLOTS), maritime prepositioning force, and field exercise training. The purpose of both assessments is to:

> execute amphibious training exercises in order to provide an opportunity for the Navy, Marine Corps, and Army personnel operating on the west coast to gain and improve amphibious warfighting competencies at a west coast location that allows for the focused assemblage and execution of logistics movement from the offload to a location inland. These exercises would also provide the Navy and the Marine Corps an opportunity to integrate as an amphibious warfare team to move Marines from ships afloat to areas inland to support Range of Military Operations associated with amphibious warfare training.[8]

These training initiatives and activities are accomplished in addition to MCLB Barstow's strategic industrial logistics support capability provided to all U.S. military and Department of Defense agencies. MCLB Barstow has identified ways to benefit the Marine Corps' training requirements by utilizing and modernizing existing ranges, training methods and techniques, existing facilities, and providing training opportunities as one of several training platforms in tandem with Marine Corps Ranges of the Western United States. These requirements are supporting the Marine Corps' maritime strategy through MCLB Barstow's aviation and ground training initiatives and activities in addition to a robust synchronized strategic rail operational and training capability.

Notes

1. Department of the Navy, Headquarters U.S. Marine Corps, *Operational Maneuver from the Sea* (Quantico, VA: Marine Corps Combat Development Command, 1996).

2. Department of the Navy, Headquarters U.S. Marine Corps, *Ship-to-Objective Maneuver* (Quantico, VA: Marine Corps Combat Development Command, 1997).

3. Marine Corps Installations Command West, Marine Corps Base Camp Pendleton, *Marine Corps Ranges of The Western United States*, 2013, accessed at http://www.mciwest.marines.mil.

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8. Department of the Navy, Headquarters U.S. Marine Corps, *Environmental Assessment* (San Diego, CA: Marine Corps Base Camp Pendleton, 2014).

Naval Surface Fire Support

Replacing the battleships

by William Stearman

>Dr. Stearman is a retired senior (flag rank) U.S. Foreign Service officer. He has served on the White House National Security Council staff under four presidents. Dr. Stearman is a former U.S. Navy officer with considerable combat experience and author of a memoir,* An American Adventure: From Early Aviation Through Three Wars to the White House *(Naval Institute Press, Annapolis, MD, 2012).

With the Marine Corps now largely returning to its traditional role in littoral operations, it faces two major challenges: in light of potential enemy missile threats, it is now Navy doctrine to stand off at least 100 miles from a hostile shore to protect its vulnerable ships from missile and other attacks. This enormously complicates amphibious operations. (One cannot rely on MV-22s to fly troops to shore. They can be shot down by advanced and ubiquitous surface-to-air missiles.) This includes the issue of an absence of essential naval surface fire support (NSFS) lost when the last battleships were decommissioned in 1992. The Navy's solution has now come to the forefront with the 12 April 2014 christening of the USS *Zumwalt* (DDG 1000) marking a major NSFS wrong turn. This largest destroyer in history was originally specifically designed to provide Marines with the NSFS, which it lost with the decommissioning of the last two battleships. As the predecessor of the DDX 1000 program progressed, it became clear that the Marines would need at least 24 of these ships. Even this many could not hold a candle to battleship NSFS. Then, eventually, came the cost, over $3.5 billion each, so only three were programmed. The Navy is now committed to laying out over $12 billion for a weapons system that still leaves the Marines without effective NSFS.

One cannot rely on MV–22s to fly troops to shore.

Moreover, this ship is unstable in certain sea states. Unfortunately, the Navy has long been adamantly, if wrongly, opposed to battleships. Below, however, is another solution, which could provide adequate NSFS and other essential support for Marine amphibious operations at a reasonable cost.

A formidable NSFS ship if outfitted with naval guns and missiles. *(U.S. Navy photo.)*

Failing to get the NSFS they need from the *Zumwalt* program, the Marines had also essentially given up on battleships until 2007 when there emerged from the Pentagon's Joint Advanced Warfighting School (JAWS) in Norfolk, VA, the most exhaustive and thoroughly documented and wargamed NSFS study on record, which received an award for excellence from the National Defense University Foundation. This study, among other things, made a thoroughly convincing case for the battleship as an effective solution for NSFS. It estimated that an *Iowa*-class battleship could be reactivated and thoroughly modernized and supported for $1 billion. An 18 March 2009 report entitled "Amphibious Operations in the 21st Century" signed by LtGen George J. Flynn, CG, Marine Corps Combat Development Command, referring to the JAWS study, made a strong case for seriously considering the reactivated battleship as a solution to the NSFS gap. He noted that the Navy's current short range guns cause "an over- reliance on more expensive—and weather dependent—carriers and aircraft. A 2007 study concluded that re-commissioning battleships with improved gun munitions and missile systems (the desired blend of [fire support] capabilities) could be achieved in a cost effective way because the need to fill the Navy's current shortfall in aircraft carriers and aircraft would be

eliminated. The recently initiated 'Joint Expeditionary Fires Analysis of Alternatives' should give due consideration to such ideas in quest for a comprehensive solution." Unfortunately, in 2010, the Navy destroyed the entire remaining *Iowa*-class battleship infrastructure despite instructions to the Navy in the fiscal year 2007 National Defense Authorization Act to preserve these assets. Those of us who had long been fighting for a return of the battleships for Marine Corps NSFS have had to finally give up.

There seemed to be no NSFS solution in sight until an unusual new concept was introduced by Kenneth S. Brower, long regarded as America's leading feasibility naval architect: converting supertankers into highly survivable, if not unsinkable, amphibious support ships, including effective NSFS. Brower wrote:

> They [our current surface combatants] are, in my view, simply catastrophically vulnerable and vastly overpriced. In a ship (as elsewhere) size matters. Very large supertanker hulls, that are well designed, approach being unsinkable. I would bury a FFG/DDG combat system somewhere inside these vital hidden areas with advanced armor and trade speed for both survivability and reduced cost.[1]

How such a ship can be highly survivable is described below. This description indicates that it would be more survivable than even an *Iowa*-class battleship. In fact, it would be nearly unsinkable.

What we are looking at is a 265,000 long ton (long tons, with a full fuel load) tanker 1,075 feet long with a 170-foot beam and a hull depth of 80 feet. As transformed into an "expeditionary ship" it would displace a maximum of 125,000 long tons and most likely much less. The draft of this proposed ship would, thus, be less than 30 feet. Brower explains that this huge hull "reduces the probability of hull girder failure from an under keel attack. Second it could easily survive multiple side torpedo hits. Third, its huge volume and heavy structure would defeat most HE (high explosive) weapons and, and it would provide the stand-off distances and the volume/weight needed to defeat Soviet style HEAT (high explosive anti-tank type shaped charge) ASCMs (anti-ship cruise missiles) or high impact speed APHE (armor piercing high explosive.) warheads."[2] The hull on both sides would be lined with bulkheads providing alternative water and steel layers which defeat fragments and high explosive antitank jets. In addition, advanced armor would be used to protect key parts of the ship. Building on this data, I envisage that just below the main deck would be mounted a number of highly visible 8-inch 55 guns firing guided projectile rounds for NSFS. (It would thus, unlike all our other ships, look warlike.) This could be augmented with other gun systems including AGS (advanced gun systems) and, when deployable, rail guns. Offensive and other missiles would be in well-protected vertical launching system (VLS) cells below deck. On the top deck would be an array of antiship missile defenses. There would also be 5-inch guns. Perhaps major caliber (12-inch and above) monitor-type guns on special mounts could be developed for the ship. The very large deck area could accommodate a number of MV-22s and unmanned aerial systems and probably even vertical takeoff and landing aircraft. Most of all, there would be a variety of amphibious craft aboard, enough to support a significant landing force. The ship would be a virtual Marine Corps base with an embarked MEU prepared for a host of special missions which require a close-in operating capability, for example, attacking pirate bases in West Africa, bolstering threatened friendly regimes in the littorals, rescuing threatened American citizens who could, for example, have included Americans in Tripoli in 2011. It will finally give the Navy a ship survivable enough to risk a visible show of force in high threat situations when a situation warrants it, e.g., an Iranian attempt to close the Strait of Hormuz, a Chinese threat to a Philippine island, or deployed off the coast of a NATO ally threatened by Russia. The presence of a considerable number of Marines would significantly add to its potential threat. The ship could also perform a number of humanitarian missions. In all this, including opposed landings, the Marines would be close to shore, not a hundred miles out at sea. There could be amphibious craft docks rigged at the side of the ship for embarking Marines in inflatables and other assorted landing craft. The landing force would have but a short distance to shore and would be provided with sufficient NSFS and close logistics support. Compared to the new ships we are now stuck with, this ship would, moreover, be a bargain. This expeditionary ship could ensure that the Marines will have a viable integrated amphibious capability ready to go cope with any of the kinds of amphibious or other littoral operations likely in the future, assuming, as I believe we may safely do, that we will have no more large-scale Normandy type landings. This ship would, moreover, do very much to silence those critics who doubt we still need Marines who, in our past four wars, have been doing much the same missions as Army troops, though generally performing them superbly.

The ship would be a virtual Marine Corps base with an embarked MEU prepared for a host of special missions which require a close-in operating capability.

Notes

1. Email between Kenneth S. Brower and author.

2. Ibid.

Megacity Disasters?

Is the Marine Corps ready?

by SSgt Trevor L. Hairston

"Even with the best efforts at deterrence, complex and chaotic conditions in the world will inevitably produce crisis and conflict."

—MCDP 3, Expeditionary Operations, *16 April 1998*

>SSgt Hairston is an 0231 (intelligence specialist) currently serving as the senior analyst for a regional support team at Marine Corps Information Operations Center, Marine Corps Base Quantico. He has deployed to Operation Iraqi Freedom (2009–10) and Operation Enduring Freedom (2011–12), and with the 31st MEU Fall Patrol (2013).

The United States has concluded two counterinsurgency operations and is returning to pre-9/11 conditions where the MEU was at the forefront of operations abroad. This has made the U.S. Marines innovative and committed to any problem frame, but after a decade of irregular warfare, it is time to focus on a new developing battlespace: the megacity. "UN-HABITAT defines a megacity as a city with 20 million or more inhabitants."[1] Other definitions place this number much lower, at roughly 10 million, but those with a higher population density are more concerning due to their proximity to reoccurring weather systems. The megacity environment has been discussed in terms of traditional ground and air combat, but little is highlighted about support to these conurbation settings in the event of a natural disaster.

Marines are experienced in all types of warfare but are less versed in handling aid and relief operations. Gen Charles C. Krulak's *The Strategic Corporal: Leadership in the Three Block War* prescribes how a Marine is to transition from supply distribution to stopping civil unrest. What happens when those in need become the aggressors, and at what time do the Marines go back to supporting aid and relief? How can the Corps maintain the trust and confidence of both the population and host nation when Marines are seen as the savior and the aggressor? In upcoming decades, the Marine Corps will see the rise of megacities to include the sheer devastation that a variety of disasters will cause. What this means for the Marine Corps is dealing with civil unrest on a larger scale while competing messaging from nonstate actors' attempts to further their political, military, and/or religious goals by exploiting a chaotic environment void of political and economic structure. According to the Center for International Earth Science Information Network, "About 40% of the world's population [currently] lives within 100 kilometers of the coast"[2], and by 2025, it is expected to increase by 35%.[3] Coastal megacities, more so than those located further inland, will increase in susceptibility to both littoral- and land-based disasters. With these concerns in mind, is the Marine Corps capable of supporting a megacity disaster? The essential tools for Marine Corps success are an increase in manpower, targeted training requirements, and theater security cooperation events that specifically enhance the host na-

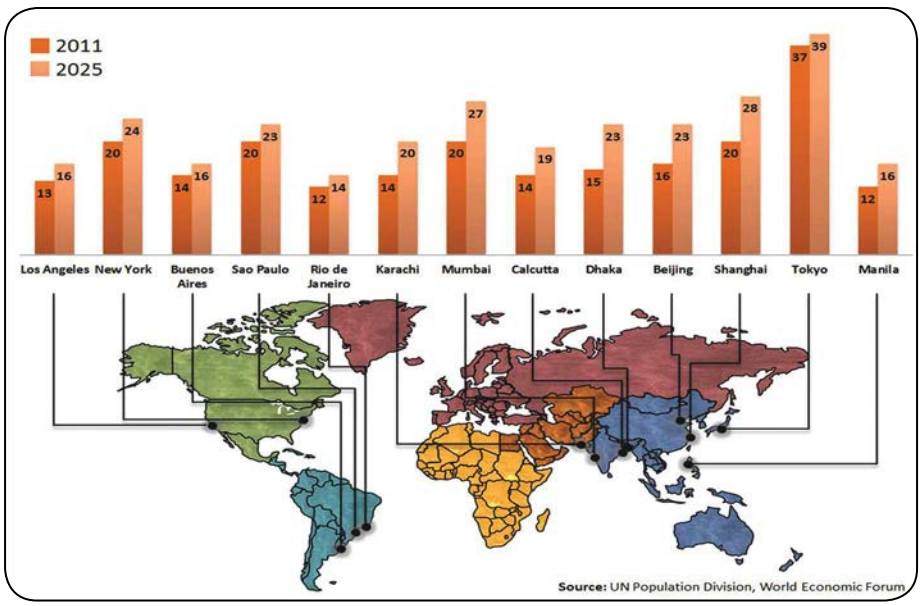

Figure 1.

The Empire State Building from Rockefeller Center, New York City. *(Photo by Francisco Dietz, August 2009.)*

tion's ability to provide and protect for their people in cases requiring relief and aid operations due to extreme disasters.

Climate Change and Environmental Disasters

The main problem with climate change is that it acts as a threat multiplier with the weather becoming more intense and recurrent. Climate change is an ongoing process, and the effects will not be blatantly apparent (e.g., slight rises in the sea level, sediment erosion, natural barriers, etc.). Immediate onset disasters can be identified and handled by the host nation partnered with U.S. Marines. Slow onset disasters, however, will have long-term effects that will be harder to battle because of the amount of damage that has already occurred, leaving little time to take corrective action. An example of how deadly a slow onset disaster can be the degradation of New Orleans' levees that was a result of poor maintenance and soil erosion around the levees, which were further compromised by Hurricane Katrina in 2005. Moreover, sudden onset disasters, like Katrina, will lead to immediate civil unrest and internal fighting over scarce resources such as food, water, and shelter. The damage to New Orleans was devastating, but manageable, and yet the ability to manage areas like Karachi and Dhaka, with dense populations and no supporting infrastructure, will prove infinitely more difficult.

It is hard to define what will trigger the failure of natural or manmade barriers holding back the full force of nature, but when those defenses fall, the Marine Corps must be prepared to respond. Any single event (e.g. sediment erosion, coral reef depletion, etc.) could be the facilitator for more destructive weather in the immediate future. While individual events will be hard to forecast, the overall effect of extreme weather and environmental degradation will certainly be apparent. Let the Marine Corps not be fooled into thinking that weather-related disasters will simply be isolated incidents, but instead, look to the certainty of an overwhelming future with entire population centers looking to the U.S. as a supporting ally.

Historically, populations have faced disasters ranging from earthquakes to tsunamis. In 1138, one of the deadliest earthquakes recorded killed nearly 230,000 people in the Syrian city of Aleppo.[4] The destruction, not only to Aleppo but also the surrounding area was devastating, but does not compare with the volume of people, not to mention possible effects on the global economy, of today's population centers that are nearly 20 times larger. The world will see deaths in the millions with many more displaced and seeking help, even if they must fight for the basic life necessities. The structures 1,000 years ago were not as dynamic as today's three dimensional world of skyscrapers and mega complexes, which will increase the amount of destruction that natural disasters cause compared to historical records.

Training and Manpower

What good is identifying the problem if the Marine Corps does not have the ability or experience to execute these missions? It is essential for Marines to both be qualitative and quantitative in number in order to reduce further damage and populace displacement that occur in the chaotic aftermath of a disaster: "Exercises should approximate the conditions of war as much as possible; that is, they should introduce friction in the form of uncertainty, stress, disorder, and opposing wills."[5] Although the statement is about conditioning the Marine Corps to all types of warfare, the same principle should be applied to the Marine Corps' training scenarios for humanitarian assistance/disaster relief (HA/DR) missions. The only units that consistently train for HA/DR missions are MEUs, but even aid and relief is one of 11 MEU mission sets and does not simulate what would be seen in a megacity disaster: "The challenges associated with managing population density is one form, but there are others (e.g. vehicle density leads to traffic congestion, structural density limits growth and maneuverability, and electronic signal density presents myriad problems in terms of bandwidth congestion and confounds signal-based targeting.)"[6] During Operation Unified Response in 2010, the U.S. had "10,000 Sailors and Marines involved in the Haiti humanitarian relief effort"[7] within the first weeks after the disaster. The earthquake destroyed an estimated 250,000 residences, 30,000 buildings, 1,300 schools, and 50 health care facilities and displaced nearly 3 million Haitians within a few hours.[8] In close participation with other relief organizations and the international community, Haiti received significant amounts of support. After four years,

the country has yet to fully recover and still struggles with the rebuilding efforts. Looking at current megacities and their potential growth, the Marine Corps does not have enough trained personnel or training facilities to deal with tens of millions of displaced persons, let alone the social unrest and certain aggression that will arise after catastrophic events.

The Marine Corps Information Operations Center (MCIOC) is one of a few units training on basic HA/DR planning from the coordination of information-related capabilities to messaging. There are three combined unit exercises (CUX) that MCIOC holds per year that sustain and assess the command's capability to plan, execute, and build on joint/interagency/partner nation relations to enhance MCIOC's support to the Marine Corps and MAGTF operations. MCIOC's past two CUX have been oriented around planning for HA/DR missions, with each CUX concentrating on different types of aid and relief operations. Earlier this year, CUX 14.1 was focused on refugees and CUX 14.2 was on earthquake response. The CUX emphasizes planning in addition to developing skill sets such as planning at different staff levels, coordinating with government and nongovernment agencies, and conditioning Marines to operate in a variety of environments. The MCIOC is forward-focused by simulating environments that will prepare planners for future HA/DR operations. Training events similar to the CUX should be replicated in preexisting workups and certification exercises evaluating the MEUs, with the focal point on megacity environments. Multiple training facilities across the U.S. and abroad can be used in unison to simulate different portions of a megacity, enabling Marines to train across the globe in one simulated environment. An increase in manpower, specifically to the MEU and MEB staffs, will enable the main and supporting efforts to increase their operational footprints across a complex and ever-changing environment.

Theater Security Cooperation Programs Preparing Rising Megacities

The final piece to prepare the Marine Corps for successful HA/DR missions in megacities is international venues that would bridge the Marines with partnered nations. A partnership of U.S. Marines and foreign military organizations concentrating on coastal management projects and handling of displaced persons, to include civil unrest, prepares the Marine Corps and American allies for handling ensuing megacity disasters. In the Pacific theater, there are 7 joint exercises and 16 Marine Corps partnered exercises annually. These exercises concentrate on building combat and operational capacity and do not focus solely on HA/DR mission sets, but these events could be enhanced by allocating time and training to local security forces in high-risk areas. Megacities of the future, situated along the coastline, can expect further caustic weather-related disasters to occur more frequently than indicated by historical norms.

The protection of these megacities will play an important role in future aid and relief operations conducted by the Marine Corps, relief agencies, and most importantly, the host nation.

"When states fail to provide protection and other basic services within a megacity an ungoverned region may arise within the megacity."[9] The protection of these megacities will play an important role in future aid and relief operations conducted by the Marine Corps, relief agencies, and most importantly, the host nation. MEUs and standing MEBs need to move past returning the infrastructure back to preexisting conditions. Instead, the Marine Corps must show the host nation how to develop and maintain coastal management projects in order to protect the local populace and surrounding infrastructure from destructive weather, thereby enhancing the authority, capability, and capacity of the host nation. Reestablishing pre-existing conditions can no longer be the standard. If a storm has already severely compromised a megacity, bringing the nation back to pre-storm conditions only means that it will not withstand the next encounter with nature.

More community relations projects during theater security cooperation exercises should focus on environmental stability and megacity survival, decreasing the amount of overall damage that could occur. There are a multitude of early warning systems for tsunamis, earthquakes, and floods, but these systems only give advance notice of minutes to hours. Creating programs specifically designed for development of coastal management will decrease the total damage to megacities from extreme weather-related disasters, which are less prevalent in other regions of the world. With a wide range of tools from sea walls to rock armor to beach replenishment, there is very little the Marine Corps cannot assist with in creating viable programs and training. Building and maintaining theater security cooperation events centered on preparation and procedure prepares Marines, while ensuring the integration and coordination when the exercise becomes a reality.

The emphasis on preparing and guiding host nations that are not capable of responding to these disasters on their own imbues the opportunity to strengthen further relations in areas with unfavorable views toward the U.S. The outcome of Typhoon Haiyan is a prime example of how the U.S. could better prepare local authorities while improving America's image in Southeast Asia. Due to the Philippines' growth over the past few years, the Armed Forces of the Philippines has begun to modernize itself. This has led to an issue that, "Unfortunately, given the scale of those projects, either external defense or HADR will not be substantially satisfied and further investment is needed."[10]

Typhoon Haiyan hit a small region in the Philippines causing significant damage to the coastal structures. As a result, the entirety of the Philippine security forces was unable and ill-prepared to deal with the disaster on its own. It is not hard to imagine the outcome if a similar storm had hit Manila, which has roughly 12 million inhabitants and is expected to be closer to the 20 million mark in the next decade. If a megacity disaster happens and the Marine Corps has not worked with the host nation, then the success will fall to less-than-favorable results. On the other hand, if there is a working relationship like the Marine Corps has with the Philippines, then missions similar to Operation Damayan can be initiated, executed, and completed with healthier end results.

Conclusion

In conclusion, megacities will have a significant role in the future of the Marine Corps. Whether through coastal management projects, quelling civil unrest, or providing aid and relief in remote areas, Marines need to be equipped physically and mentally to handle operations on a much larger scale than previously encountered. Being proactive instead of reactive in high-risk areas will provide a quicker and more effective response time while limiting the loss of life, maintain order, and prevent further structural collapse, to include reducing the amount of economic strain and hardships on the surrounding region. President Barack Obama's "Pivot to Asia" priorities established in 2012 specifically address the necessity "to create an operational conception that links the Indian Ocean with the Pacific. These are going to be the two dynamic oceans of our future. We are going to have to be more geographically dispersed. We are going to have to work with more nations that will sustain a strong American presence in the Asia Pacific."[11] The Marine Corps needs to place a higher priority on HA/DR training, involving more nations in exercises to build better rapport and procedures, and increasing permanent personnel to MEU and MEB staffs. Combating the adversary is well ingrained into Marines, but a new type of environment needs the same amount of attention to detail seen in Operations Iraqi Freedom and Enduring Freedom. The Marine Corps has a need to enhance the efficiency of its response to HA/DR mission sets that will unfold on the grandest of scales, thereby setting a standard for Marines that will improve a host nation's capability, but more importantly set conditions to help people who truly are in need.

. . . megacities will have a significant role in the future of the Marine Corps.

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Electronic Warfare in Vietnam

How the Corps Became the Electronic Warfare Leader during the Vietnam War

by LtCol James McBride

Few people know about the pioneering role the Marine Corps played in aviation electronic warfare during the first half of the Vietnam War, even amongst prominent historians. What follows is a short article about that history, followed by a brief account of the events and circumstances that led to the Corps having such a unique and profound impact on the entire air war in Vietnam.

>LtCol McBride is a 7202 (air command and control) officer. He is currently serving as the Operations Officer, Marine Corps Communications-Electronics School. LtCol McBride has deployed with VMAQ-1 to Operations Northern Watch, Southern Watch (2001, 2002–03); Operation Iraqi Freedom/Enduring Freedom (2003). He has also deployed with the 22nd MEU (2004, 2008), Marine Wing Support Squadron 374 (OIF 5–7), and Marine Tactical Air Command Squadron 28 (OEF, 2009–10).

The History

By 1965, once it became evident that the U.S. commitment in Vietnam was becoming entrenched—signified most poignantly by the commencement of Operation Rolling Thunder—the North Vietnamese sped up their existing plans to protect their high-value assets with sophisticated integrated air defense systems (IADS). With the help of the Soviet Union, they integrated modern antiaircraft batteries with top-of-the line (at the time) SA-2 surface-to-air missile (SAM) systems.

EF-10B

The only electronic warfare aircraft the U.S. possessed in 1964 and early 1965 that could effectively counter this increasingly sophisticated threat with tactical electronic jamming was, perhaps surprisingly, the Marine Corps' Douglas EF-10B (formerly F3D-2Q prior to Vietnam). Supporting first from Iwakuni Air Base in Japan, VMCJ-1 (Marine Corps Reconnaissance Squadron 1) arrived at Da Nang Air Base in April 1965 with six EF-10B Skyknights, augmented by a detachment of RF-8As who moved to Da Nang from the USS *Coral Sea* (CV 43).[1]

The Douglas EF–10 Skyknight, VMCJ–1 Golden Hawk lands at Da Nang. *(Photo from Dana Bill,* **Air War over Vietnam,** *(London: Arms & Armors Press, 1984.))*

The Skyknight was a two-seat aircraft that derives its name from its origin as a carrier-based night fighter. Now, with an entirely different role in Vietnam, it carried up to six jammers in its fuselage that fed high-gain antennas located inside its nose where the radar jamming signals emanated from. Omni-directional receivers were also located in its nose, and low-band communications-jamming signals came from an antenna in its tail. Based 100 miles south of the Demilitarized Zone (DMZ) at Da Nang, VMCJ-1's EF-10Bs provided jamming support to strike aircraft targeting areas in the DMZ and in the southern portion of North Vietnam. And, like the other Services' electronic warfare (EW) aircraft, it provided electronic surveillance of the theater with its passive receivers.[2]

Since the ground radar threat in South Vietnam was virtually nonexistent, the practice of airborne EW was

EA-6B Intruders. *(File photo.)*

largely relegated to North Vietnam. Accordingly, the tactics and employment of Marine EW aircraft "concentrated on coordinated use of electronic countermeasures (ECM) to allow strike forces to penetrate the North Vietnamese air defenses."[3] From the moment of their arrival, the EF-10Bs proved indispensable in that role and were subsequently "fragged" daily to provide electronic warfare support (ES) and electronic attack (EA) support of Air Force strike and reconnaissance missions.

In the process, they blazed a trail of history in their wake. On 17 April 1965, within 10 days of their arrival at Da Nang, Marine Corps EF-10Bs gained the distinction of being the first EW squadron to conduct EA in North Vietnam: "[The] EF-10Bs flew 'special active ECM & Chaff' missions in support of *Operation Rolling Thunder*. They jammed Early Warning and Fire Control radars from Thanh Hoa to Vinh in support of Naval and Air Forces."[4] On 29 April 1965, Marine EF-10Bs participated in the first combat aviation strike mission where active electronic countermeasures were employed in support. Then, on 24 July 1965, four EF-10Bs from VMCJ-1 supported the Air Force again in the first strike against one of the new SA-2 SAM sites that protected the Hanoi area.[5]

Marine Corps' Foresight = the EA-6A

Two years prior to 1964, the Corps had the foresight to recognize the need for an aircraft designed specifically to fill the mission of tactical EW.[6] It was then that they began the pursuit of a more advanced dedicated EA aircraft to succeed the EF-10B. In 1962, the Corps authorized the pursuit of a modification to the A-6 Intruder airframe to make an EA version whose primary mission would be to suppress enemy antiair radars during air strikes. But this pursuit would not be without a struggle:

> Amid howls of protest that such an aircraft would cost too much and that the mission that it was being designed to perform was impossible, the Marine Corps fought its case before Congress, and won out in the end.[7]

. . . the Corps had the foresight to recognize the need for an aircraft designed specifically to fill the mission of tactical EW.

The Navy chose to pass on the EA-6A (with the exception of adding some later to Navy Reserve squadrons), opting instead to develop a four-seat version of the A-6 that would eventually be dubbed the EA-6B Prowler. However, that decision relegated them to "second-fiddle" in EA support throughout most of the Vietnam War, until the EA-6B finally arrived in theater in 1972.[8]

In April 1963, the EA-6A took its maiden flight. The most noticeable external difference to the base A-6 airframe was a "canoe-shaped fin-tip fairing" near the top of the vertical stabilizer that contained the antennae for the ALQ-86 receiver/surveillance system. The aircraft could also carry a combination of jammer pods, chaff dispensers, and AGM-45 Shrike antiradiation missiles on its four under-wing pylons and its one centerline station.[9]

Marine Composite Reconnaissance Squadron Two (VMCJ-2) received the first operational EA-6As at MCAS Cherry Point, NC, in December 1965. The first EA-6A deployment (12 planes) to Vietnam occurred in October 1966.[10] Quickly proving their worth, they were assigned to the highest threat air missions, while the EF-10Bs took on the rest until their departure from the theater in October 1969.[11]

Though the overall airframe was a significant improvement with respect to EA capability, when the EA-6A arrived in late 1966, the equally new and improved ALQ-76 high-powered jamming pods it was designed to carry were not yet available because of production delays. So the new EA-6As flew in Vietnam for over a year with noise jammers that were little improvement over those of the venerable EF-10B it was designed to replace. The ALQ-76 pods finally arrived in 1968, each containing four 400-watt Raytheon transmitters feeding steerable high-gain antennas. Carrying three of these pods in combat, each EA-6A could employ 12 jamming transmitters across a variety of radar bands—a vast improvement over the EF-10B and far surpassing anything else available in theater at the time.[12]

The EA-6A supported countless Army, Air Force, Navy, and Marine missions from its arrival in Vietnam until its withdrawal in July 1970 as part of the gradual withdrawal of U.S. forces. A squadron detachment (DET) of EA-6As returned temporarily to Da Nang in November that same year to support the unsuccessful Son Tay POW

prison rescue attempt. Two more DETs returned in February and April 1971 to support Task Force 77 strikes in North Vietnam. The remainder of EA-6A support would come from Naval Air Station Cubi Point, Philippines, where VMCJ-1 and -2 supported Operations Linebacker I and II as well as other operations until the end of major U.S. military operations in 1973.[13]

All in all, only 28 EA-6As were ever built: 2 were prototypes, 11 were converted from A-6As, and 15 were built from the ground up as EA-6As.[14]

The Story Behind the Story

The EF-10B was not the only dedicated EW aircraft in theater in 1964 and early 1965; the Air Force also possessed an EW aircraft during this period—the EB-66 Destroyer—but they employed it almost exclusively in the ES role during this time, with some very limited standoff jamming. It would not be until the summer of 1965 that the Navy finally put into service its own dedicated EA-capable EW aircraft—the EKA-3B—that supported strikes in Vietnam from carriers offshore. Interestingly, both Services' aircraft were based on the Navy's A3D Skywarrior, a twin-engine swept wing light attack/reconnaissance jet from the 1950s.[15]

Consequently, the Marine Corps claimed the undisputed title of providing tactical EA with dedicated EW aircraft in direct support of strike missions in the early period of the war. Their effectiveness at reducing the number of aircraft shot down by both antiaircraft artillery (AAA) and SAM systems was undisputable, and the other Services—particularly the Air Force—were caught unprepared for this threat with their proverbial "pants down."

How did it come to pass that of all Services, the Marine Corps became the preeminent—in fact, for a time, the *only*—tactical air radar jamming platform in the U.S. inventory in the early stages of the Vietnam War? The key word is tactical: the Air Force tended then—and still today—to think in terms of *strategic* capabilities. Accordingly, its EW focus during the period between the Korean and Vietnam wars was ES—specifically, intelligence sig-

Department of Defense Dictionary of Military and Associated Terms (JP 1-02)

Electromagnetic jamming — The deliberate radiation, reradiation, or reflection of electromagnetic energy for the purpose of preventing or reducing an enemy's effective use of the electromagnetic spectrum, and with the intent of degrading or neutralizing the enemy's combat capability.

Electronic attack (EA) — Division of electronic warfare involving the use of electromagnetic energy, directed energy, or antiradiation weapons to attack personnel, facilities, or equipment with the intent of degrading, neutralizing, or destroying enemy combat capability and is considered a form of fires.

Electronic warfare (EW) — Military action involving the use of electromagnetic and directed energy to control the electromagnetic spectrum or to attack the enemy. Electronic warfare consists of three divisions: electronic attack, electronic protection, and electronic warfare support.

Electronic warfare support (ES) — Division of electronic warfare involving actions tasked by, or under direct control of, an operational commander to search for, intercept, identify, and locate or localize sources of intentional and unintentional radiated electromagnetic energy for the purpose of immediate threat recognition, targeting, planning and conduct of future operations.

nals collection of China and Russia. In short, developing an EA capability was nowhere on the Air Force's priority list prior to Vietnam. As Col Wakeman says in his 1999 thesis, "Conventional tactical delivery of weapons and defensive systems designed to protect aircraft from enemy air defense systems were not even a concern to the Air Force."[16]

Further adding to the complacency of the other Services was the fact that, throughout 1964 and into 1965, Vietnam did not have a robust IADS. The U.S. Air Force and Navy conducted a few targeted strikes during this period, such as the August 1964 retaliation strikes in response to the alleged Tonkin Gulf incident and Operations Flaming Dart I and II in February 1965 in response to the Viet Cong attacks at Pleiku. These strikes, though of mixed success, were largely unopposed, except from mostly unguided AAA; the North Vietnamese only had four fire-control radars and no SAMs at the time. It would not be until Rolling Thunder was in full swing in March 1965 that the North Vietnamese began, with the help of the Soviets, building up their IADS with radar-controlled AAA and SA-2 SAM sites.[17]

All three of the respective Services had years of experience in airborne ES prior to the Vietnam War: the Air Force with its EB-66s eavesdropping along the Iron Curtain; the Navy with its EA-3s operating in the Sea of Japan; and the Marine Corps with its F3D-2Qs collecting off of Cuba, the Sea of Japan, and the Soviet Union. But it was the Marine Corps who responded first to the need to fill the tactical EA role in Vietnam with the EF-10B.[18] Very soon after, the Air Force EB-66C joined the mix, supporting Rolling Thunder strikes with the EF-10B.

The "Game-Changer"

This EF-10B/EB-66 EW team proved effective, provided the tactics used by the strike package were commensurate with the EW capability to protect them. But their presence alone did not compensate for the vast improvements the North Vietnamese made to their IADS in a very short period. The lack of compensation was exemplified on 21 July 1965 when two integrated SA-2 SAM systems shot down an F-4C and damaged three others. Shocked, the U.S. quickly retaliated on 24 July with Operation Spring High, a low-level strike attempt against the SAM sites, supported by several EF-10Bs and EB-66Cs. The strike flew right into a preplanned AAA trap, resulting in the North Vietnamese shooting down four more of our strike aircraft.[19]

This series of events starkly highlighted the U.S.' lack of preparedness for the IADS threat and finally woke the senior military and civilian leadership up to the fact that a much more robust EW capability was the only effective way to counter it. The result was the development of a combination of new or enhanced doctrine, tactics, and capabilities that incorporated more advanced EA support aircraft (such as the EA-6A and, later, the EA-6B), self-protect pods/jamming systems on strike aircraft, and Wild Weasel/Iron Hand aircraft[20] that laid the foundation for U.S. counter-IADS tactics for decades.

. . . throughout 1964 and into 1965, Vietnam did not have a robust IADS.

Sundown of the EA-6B

So as the sundown of the Marine Corps' venerable EA-6B comes upon us, it is good to know how it all began, and how the Corps, once again, demonstrated its tenacious pioneering spirit of "doing more with less" to turn the tide on the field of battle.

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The UH-1Y was a Mistake

An argument for the MH-60S

by Capt Ryan E. Von Rembow

In the mid-1990s, the Department of Defense (DoD) sought to modernize its aging military equipment. Each Service started multiple research and development initiatives ranging from the U.S. Army's Comanche helicopter to the Marine Corps' MV-22 and expeditionary fighting vehicle. One of the most important programs for the Marine Corps was the renovation of its Vietnam War-era H-1 fleet, consisting of the UH-1N Iroquois and the AH-1W SuperCobra. The Marine Corps argued that upgrading the airframes would be more cost effective than buying new aircraft that were already fielded and proven. Based on the cost forecasts of the manufacturer Bell and expert lobbying, the H-1 upgrade program was approved. The history of the H-1 upgrades program shows that the Marine Corps should have acquired the MH-60S Knighthawk rather than upgrading the UH-1 because it costs less, has greater commonality with other Services' aircraft, and is far more capable.

The two main themes proponents of the H-1 upgrade program have used since its inception have been that it will cost less and that the 85 percent commonality between the UH-1Y and the AH-1Z is critical to reducing footprint, training, and support requirements. When the H-1 upgrade program was selected, the per unit cost of a UH-1Y was planned to be $9 to $10 million and the overall program cost was $3 billion.[1] These cost estimates, one of the pillars on which the entire upgrade program was sold, were extremely flawed. It wasn't long after manufacture was authorized in 1998 and development started that issues and overruns began.

DoD sought to modernize its military equipment in the mid-1990s. The H-1 upgrade was one such program. *(Photo by LCpl Matthew J. Bragg.)*

In March 1999, a $33 million over-run was absorbed by the DoD due to "poor overseas sales" by the manufacturer Bell that increased labor costs.[2] Later in October, another $10.3 million increase occurred in another subcontractor for development of software.[3] In 2001, issues continued to mount on every part of the aircraft including cracking in the vertical stabilizer, and problems with the main rotor blade, yoke, hydraulic systems, manufacturing tooling, and the integrated avionics system.[4] These setbacks in development led to the first of multiple program restructurings which added $150 million in cost, a year delay in the start of production and—due to poorly written contracts—all of these costs overruns were absorbed by the DoD and not Bell.[5] [6]

In 2002, the H-1 program tripped a major red line in the form of a Nunn-McCurdy violation. The Nunn-McCurdy amendment to the 1982 National

>Capt Von Rembow is a UH-1N pilot. He received his wings in 2008 and has subsequently deployed to Afghanistan in 2009 with Marine Light Attack Helicopter Squadron 169 (HMLA-169), and again in 2012 with HMLA-469. Following graduation from Expeditionary Warfare School in 2014, he was assigned to 5th ANGLICO, Okinawa.

The MH-60 can give the MAGTF more offensive air support and antiarmor capability. *(Photo by Photographer Matt Airman Joshua Wayne LeGrand.)*

Defense Authorization Act mandates that any program that goes over budget by 25 percent or more must certify to Congress that the program is essential to national defense, that there are no cheaper alternatives, that new costs estimates are accurate and reasonable, and that the program managers can control costs.[7] Although the H-1 program was already 63 percent over budget, the Marine Corps fell back on its two pillars of overall cost and commonality when answering Congress. Despite the MH-60S already being in production in 2002, the assistant Deputy Commandant for Aviation, LtGen Michael A. Hough, testified that it would be approximately $2.6 billion if we did anything to lose the commonality and about $3.5 billion over a 20-year life-cycle cost to have separate trainers, separate maintainers.[8] In reference to the MH-60, he testified that even though the (unit) cost is close…it would take between about 244 to as many as 500 extra Marines to support any kind of platform that was uncommon.[9] Congress, not being well-versed on the intricacies of the Marine light attack helicopter (HMLA) community most likely heard these numbers and was understandably alarmed. It is hard to believe these numbers were accurate, however, when the HMLAs at the time were already supporting two uncommon airframes and still are as of 2014 without these gargantuan increases in Marines and support equipment. Just like the reasons LtGen Hough offered for why the program was over cost, these predictions seem to be based on "poor cost estimating" and a "poor grip on the requirements."[10]

No amount of commonality between aircraft matters if you don't have any parts.

The costs continued to climb after the 2003 Iraq war began when increased utilization of the HMLAs forced the program to scratch the plan to modify existing airframes and switch to building new. Schedule slips, additional testing requirements, and building brand new airframes increased the cost of the H-1 upgrade program from the original $3 billion to $8 billion in 2005 and $12 billion in 2009.[11] [12] According to the 2014 Defense budget estimates, there are 15 UH-1Y being ordered and 18 MH-60S. These documents show the individual cost and the cost including support of the UH-1Y is $23.7 million and $29.5 million, respectively. Comparing this to the MH-60S unit cost of $22.58 million and cost including support of $25.39 million it is clear that the H-1 upgrade is not cheaper.[13] [14]

If the actual aircraft isn't cheaper, then the savings must be in the second pillar of commonality between airframes. The argument that 85 percent common components between the AH-1Z and UH-1Y reduces logistical footprint, reduces training requirements, and reduces costs is accurate and valid. Consider, however, if the Marine Corps had the MH-60S, it would have 100 percent commonality with the Navy, in addition to the logistical support that could be accessed in the Air Force, Army, Coast Guard, coalition partners, and even other U.S. Government agencies that also use the H-60 such as the Border Patrol.

No amount of commonality between aircraft matters if you don't have any parts. A Senate Armed Services Committee report released in 2013 found that four airframes had "less than acceptable" mission capable rates due to supply chain issues. These were the MV-22, two variants of the F/A-18, and the UH-1Y.[15] One can imagine the savings and increased readiness the Marine Corps would gain if it could join in joint research and development ventures with the other Services for upgrades to the H-60, if it could tap into common logistical supplies, and if it trained on the same aircraft as other Services.

If the UH-1Y is not cheaper than the MH-60S, and if 85 percent commonality itself is not enough to justify the program, the UH-1Y would have to be more capable than the MH-60S for it to have been the right choice. This is not the case. Ignoring Bell and Sikorsky websites and going straight to the Naval Aviation Training and Operating Procedures Standardization (NATOPS) manuals paints a very clear picture of the difference between the aircraft. Spanning all six functions of Marine aviation, the utility helicopter is used primarily for assault support, offensive air support, aerial reconnaissance, airborne command and control, and often does several of these in one flight. While

the AH-1 does many of these, it cannot carry troops or cargo. To grade and compare a utility helicopter, one must look at each mission set individually as well as the base characteristics of the airframe itself.

A starting point for comparison is speed and range. The MH-60S is faster than the UH-1Y with a max speed of 180 knots versus 170.[16] [17] In addition, the MH-60S typically flies with the doors closed which leads to better aerodynamics and less power required to reach higher speeds. The UH-1Y can fly with the doors closed, but this removes access to the crew-served weapons, a flaw the MH-60S does not have due to forward door guns. The MH-60S can fly much farther than the UH-1Y. Although the UH-1Y bests the H-60 with 386 versus 360 gallons in the main fuel cells, the MH-60S has the capability of installing two 200-gallon tanks internal to the aircraft while the UH-1Y is only capable of mounting two 77 gallon tanks externally.[18] [19] The UH-1Y loses all armed capability on either side of a fully-loaded auxiliary fuel tank installed due to weight restrictions of the defensive armament system mounts.[20] The MH-60S loses some seating capacity but retains its armaments. The MH-60S can also refuel in flight while hovering, giving it a capability to extend its range even further.[21] The MH-60S would get the USMC to the furthest climes and places the UH-1Y can't reach, and do it faster.

The UH-1Y has done a terrific job in Operation Enduring Freedom. Operating in the close air support role, it has ended numerous troops in contact situations with precision crew served fires. It has done this with a relatively light load out of no more than 14 2.75-inch rockets and 2 door guns ranging from 7.62 mm to .50 caliber. While the UH-1Y can carry the larger LAU-61 unguided rocket pod, it can only fill between 11 and 14 of the 19 slots depending on which gun is installed due to defensive armament system mount restrictions.[22] The MH-60S has more options. It can fully load the LAU-61 with 19 rockets. It has an option of carrying up to eight AGM-114 helicopter-launched, fire and forget (Hellfire) missiles. It has the option of a fixed forward 20 mm cannon with 600 rounds.[23] It also has the option of installing four guns vice two to increase field of fire.[24] These guns are the same .50 caliber and 7.62 mm used in the UH-1Y. The advanced precision kill weapons system, a laser guided 2.75-inch rocket, is scheduled to be added in March 2014.[25] The only weapon system the MH-60S currently does not have is an antiair system such as the AIM-9, but it could be procured if deemed necessary. The MH-60S would give the MAGTF much greater offensive air support and antiarmor capability than the UH-1Y.

The UH-1Y. *(Photo by LCpl Christopher O'Quin.)*

The UH-1Y has done a terrific job in Operation Enduring Freedom. Operating in the close air support role . . .

Much of the value of a utility helicopter comes from its ability to switch missions rapidly. From delivering air-to-surface fires one minute to delivering emergency resupply or conducting casevac the next, the utility helicopter is invaluable. A flight might insert a force, immediately provide close air support for them, and extract them upon mission completion. The assault support capabilities of utility helicopters are crucial to the MAGTF and the MH-60S is far superior to the UH-1Y in this realm because of solid engineering and design decisions such as the transmission. In the UH-1Y, the transmission is center-line mounted which takes up a significant amount of cabin space while the MH-60S transmission is on top of the cabin itself freeing up considerable room. This allows the MH-60S to have up to 12 seats installed for passengers compared to the UH-1Y which—for any tactical mission in which the crew chiefs need access to their weapons and the cabin—is limited to five.[26] [27] In the rush to field the UH-1Y, issues identified during operational evaluation were allowed to remain. The original seats featured a three abreast installation that inhibited the crew, served employment, and isolated the crew chiefs from the passengers. It took a few weeks and the motivation of an HMLA-367 crew chief, Sgt Zachary Lucas, who invented a two-man variant of the seats, to fix what hundreds of millions of Bell research and development money came up with.[28] With limited assets and sorties available as it is, it takes double the UH-1Ys to match the MH-60S in assault support.

There are various other advantages that make the MH-60S a better choice.

The MH-60S can external up to 8,000 pounds versus the UH-1Y's 4,000.[29] [30] The MH-60S can land with up to 9 degrees nose up slope and 12 degrees cross slope versus the UH-1Y's maximum slope of 6 degrees in any direction.[31] [32] The MH-60S can load two standard Navy pallets and has floor rollers to assist, the UH-1Y cannot.[33] The MH-60S can fly in icing conditions and up to 13,000 feet density altitude versus 10,000 feet pressure altitude for the UH-1Y.[34] [35] The MH-60S can land with up to 540 feet per minute rate of decent on level ground whereas the UH-1Y sustains "structural damage" to the skids above 240 feet per minute.[36] [37] The MH-60S is 17 feet shorter length wise and 4 feet, 3 inches shorter width wise when folded.[38] [39] The MH-60S is Link 16 capable, giving the crew enhanced situational awareness and communications capabilities.[40] One of the only weaknesses of the MH-60S is the max bank angle of 45 degrees vs the UH-1Y's 60 degrees.[41] The numbers show the MH-60S has a smaller footprint, can go farther, fly higher, bring more, land in more zones, and with more margin of error than the UH-1Y.

A replacement to the UH-1N was critical to the Marine Corps. Although given an opportunity to change course in 2002, continuing with the H-1 upgrades program got the Marine Corps a more expensive and less capable aircraft. If the Marine Corps bought the MH-60S, with all of its potential and capabilities, the AH-1Z might not have even been necessary. The Marine Corps has always been proud of doing more with less, but when it comes to the support of the Marines on the deck and how much more could be offered by the MH-60S, the UH-1Y was a mistake the Marine Corps can't afford to make again.

Notes

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32. *UH-1Y NATOPS*, 4-3.

33. *MH-60S NATOPS*, 2-145, 4-10.

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36. Ibid., 2-97.

37. *MH-60S NATOPS,* 4-9.

38. Ibid, 1-1.

39. *UH-1Y NATOPS*, 1-6.

40. *MH-60S NATIP,* 1-2.

41. *MH-60S NATOPS*, 4-8.

Strengthening the Core of our Corps

Enhancing first-term alignment procedures

by Capt Jonathan Landers

Current Marine Corps retention procedures are potentially preventing some of the best and most qualified Marines from re-enlisting. As we drawdown from an active duty strength of 202,000 to 175,000, it is imperative that we retain the best Marines, regardless of MOS, to meet Gen James F. Amos' stated goals of "persistent discipline, faithful obedience to orders and instructions, concerned and engaged leadership… and strict adherence to standards."[1] By retaining the most morally sound and dedicated Marines, we will continue to populate the backbone of the Corps with the strongest leadership possible. The purpose of this article is to highlight a few issues regarding the current retention system and provide recommendations to correct or improve them.

Will we keep the best and most qualified? *(Photo by Cpl Keenan Zelazeski.)*

Problem Framing

The First Term Alignment Program (FTAP) is the system used by the Marine Corps to reenlist Marines after their first Service contract, usually after 4 years of service. The system uses a computed tier score to define FTAP Marines' performance during that time. Tier scores are calculated by evaluating a Marine's PFT, CFT, Marine Corps Martial Arts Program belt, average proficiency and conduct marks against the average for all first-term Marines in that MOS. Tier I Marines are considered the top 10 percent (100–90 percentile), Tier II Marines are reserved for the next 30 percent of the force (89–60 percentile), Tier III Marines form the 59th–11th percentile, and Tier IV is the bottom 10 percent of performers (0–10 percentile). Commanders have the ability to override the computer-calculated tier sheet by one tier up or down; however, the computer-generated score generally carries the most weight when determining who will be reenlisted. Marines are allowed to reenlist within their original MOS or execute a lateral move into another MOS based on availability, commonly known as boatspaces.

Issues

The major issue with the current system is that it focuses primarily on retaining a certain number of Marines. While commanders have a responsibility to meet their retention mission, they also owe the institution the best product possible. The current system does not always assist commanders in meeting these competing requirements because there is no way to prioritize superior performers and evaluate the quality of a Marine between MOSs across the entire force.

My primary concern with the current system is that FTAP boatspaces are issued on a first-come, first-served basis to qualified Marines regardless of the computed or command assessed tier level. This means that if a Tier III

>Capt Landers is the CO, Headquarters Company, 5th Marines.

Marine submits his reenlistment request earlier in the fiscal year than a Tier I Marine, the Tier III Marine has a better chance of reenlisting because he will be further ahead in the queue. By the time the Tier I Marine's package is reviewed, the potential exists for all of the boatspaces to be filled.

The Tier I top performer now faces a choice: submit a lateral move package or leave the Service. Even if the Marine chooses to submit a lateral move package and is accepted for reenlistment in a new MOS, the second- and third-order effects still negatively impact the Marine Corps. First and foremost, the MOS community loses a skilled Marine who is a proven junior leader in that specialty with 4 years on-the-job experience. Next, the Marine Corps must now retrain that Marine in a new MOS which costs a significant amount of time and money. Granted, this is a cost the Marine Corps has already accepted or else it wouldn't allow lateral moves, but all of this effort hardly seems worth it to reenlist an average to below average performer who just happened to submit his package a few weeks earlier.

The second problem with the current system is that the Total Force Retention System (TFRS) only computes tier scores based on the Marine's current MOS. This potentially prevents good Marines executing lateral move packages from being viewed competitively in their desired MOS. For example, the potential exists that a Tier III 0341 (mortarman) might actually be a Tier I supply clerk based on overall performance. However, that Marine is not as competitive for reenlistment in the lateral move MOS because he is still viewed as a Tier III candidate. The TFRS system cannot simulate or estimate what the 0341 Marine's performance would be as a supply clerk. If it is the Marine Corps' desire to retain the best Marines, regardless of MOS, then our systems need to provide a method for career retention specialists to analyze what MOS a lateral move Marine will be most competitive in to increase his chance of being selected.

Fixing TFRS to show competitiveness in any MOS is the easier problem to solve . . .

Recommended Actions

Fixing TFRS to show competitiveness in any MOS is the easier problem to solve, hence it will be addressed first. Marine Corps software developers simply need to add some programming code into TFRS that allows career retention specialists to compare a Marine's score to the average scores in other MOSs. Ideally, this new capability could automatically generate scores in all MOSs that the Marine expresses interest in and at the same time show the Marine in which specialty he would be most competitive. The data for each MOS is already in the system, the system just needs an upgrade to allow the ability to compare performance in one MOS against another. Funding for this may be limited, but the technical hurdles shouldn't be too difficult for a skilled programmer.

Benefits of reprogramming TFRS for this capability are obvious and will benefit all Marines, particularly those in low-density MOSs, which usually contain very motivated Marines with high general aptitude scores who love their work. However, the opportunities for promotion thin out quickly which may prompt them to look for employment outside of the Marine Corps. Additionally, providing the capability as a tool for career retention specialists will allow them to better counsel Marines on their options with hard concrete data.

Prioritizing boatspaces is more difficult but conceptually simple. Similar to the quality spread used at TBS to assign MOSs to second lieutenants, HQMC simply needs to allocate a percentage of reenlistment quotas in each MOS for the various tiers. For example, set aside 15 percent of all quotas for Tier I Marines, 40 percent for Tier II Marines, 35 percent for Tier III, and 5 percent for Tier IV. As reenlistment packages are submitted, HQMC can then process and approve reenlistments by tier level on a first-come, first-served basis within each tier.

Notice that Tier I and II are deliberately allocated more quotas than what should be permitted by the automated TFRS print out. This is recommended by design to ensure that the best performers are given preference and reenlisted quickly—providing a tangible incentive to that Marine. Top performers shouldn't have to wait to be told they can stay. Secondly, overloading the top tiers ensures that the commander's override can be taken into account more often. Providing commanders more input into the process will help the Marine Corps identify the "long ball" hitters who don't always have the best rifle score or PFT score.

They must be able to trust and rely on each other. *(Photo by Sgt Emmanuel Ramos.)*

Some of these Marines will be Tier I reenlistees. *(Photo by Cpl Keenan Zelazeski.)*

Another benefit of increasing the allocation for Tiers I and II is that it will provide a system to automatically reseed applicants in a given MOS. Simply put, Marines in a higher tier could be reenlisted against a lower tier quota provided a lower tier boatspace was still available (e.g., a Tier II Marine reenlists under a Tier III or Tier IV quota). This system would continue until all FTAP boatspaces were filled. Benefits again include the tangible incentive of not having to wait for days/weeks for their package to be approved, allowing them to focus squarely on the task at hand and not worry about preparing for separation.

Counterarguments

One argument I see to this change is that it could reward Marines who are on the fence about reenlisting. By changing the metric by which reenlistments are approved from time (i.e., first submitted is first in the queue) to performance, an opportunity exists for top performers to wait until the last minute to submit a package, knowing that it will immediately go to the top of the pile. This is possible and yes, maybe someone who is on the fence isn't the one who should sign up for another 4 years of service; however, the Marine Corps' top performers will garner attention from civilian employers. It is inevitable. Providing them the ability to reenlist quickly allows the Marine Corps to strike while the iron is hot and potentially retain more of these highly skilled individuals. If "fence sitting" becomes an issue, it could be mitigated by requiring all reenlistment packages to be submitted by a certain date, maybe 4 months prior to the end of the fiscal year, in order to receive "tier preference." Once that date passes, all boatspaces would then be made available to reenlist Marines utilizing a process similar to what is already in place.

Another issue could be an inability to meet the retention mission as Tier III and IV Marines have to wait and their end of active service date could arrive while waiting to hear if they were approved for reenlistment. This is a valid concern and is easily solved. Give battalion or regimental commanders the ability to authorize a 6 month extension for any Marine who submits an extension package. This gives the Marine additional time to prepare for civilian life while awaiting the results and gives more time to impart some of his knowledge and experience to younger Marines. The extension wouldn't be automatic. If a command doesn't feel that a Marine should reenlist for whatever reason, the Marine can be discharged at his expiration of active service if his package doesn't get approved before he leaves. No harm is done to the Corps because once the Marines leaves active duty, his name is removed from the queue and the boatspace opens back up the same way it does in the current system.

Some will argue that if a Marine isn't a top performer in his MOS, then he shouldn't be looked at favorably for a lateral move reenlistment, regardless of how they might stack up in the proposed TFRS comparative assessment. I disagree simply on the grounds that MOSs are assigned at a recruiting station or at boot camp when Marines simply don't know all of their options. As long as they are good Marines who firmly believe in our core values, they deserve a chance to try something new that might be better suited to their skills. Commanders have the ability to identify those Marines who are morally sound but technically deficient and recommend another option.

Conclusion

No solution to the issue of retention is as easy as what is proposed in this article. However, I believe the way ahead proposed here is simple to execute and provides realistic information to Marines regarding their ability to reenlist. It is transparent and removes some of the uncertainty of why a Marine was not selected for reenlistment by providing more data to denial codes of "keen competition" and "lack of boatspaces." Most importantly, it provides a clear-cut method to retaining the best and most qualified Marines, regardless of initial MOS, to protect our Corps from the "insurgency of wrongdoing"[2] and continue to build upon the rich history and traditions of the Marine Corps.

Notes

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Five Cyberweapon Safety Rules

Decreasing the human attack surface in cyberspace

by Capt Christopher Barber

>Capt Barber is a mobilized reservist in the National Capital Region. He previously served on active duty with 2d Battalion, 9th Marines for two deployments to Helmand, Afghanistan as the S-2A (intelligence), S2, and Scout/Sniper Platoon Commander.

Transformation is a vital skill for all Marines. Diverse Americans step through the gates of Parris Island, San Diego, or Quantico, and transform into Marines. The process is not magic; it results from a ruthless focus on Service culture, institutional ethics, and professional ability. Many Marine leaders embedded these traits into our Corps; they are why the Marine Corps continues to be held in the high opinion by both policy makers and citizens.[1]

The Marine Corps prestige has an intellectual foundation in intangible concepts, but its maintenance is the result of concrete, repetitive actions. Examples of these actions appear simple at first glance, but hide deep cultural traits that enable discipline and effectiveness. The five weapon safety rules are one such example. Remembered by the ditty "Treat, Never, Keep, Keep, Know," these rules are to Marine recruits what the Lord's Prayer is to seminary students. The ability to safely, yet effectively, handle deadly small arms, is a vital operating principal for all Marines. Applying the five rules simplifies a wide range of safe weapons handling procedures so those who were untrained civilians days prior can be relied on by their fellow Marines until thousands of hours of real-world repetition take hold. What is most important about the five weapons safety rules are the lasting mental pathways they achieve. It is very difficult to find a 20-plus year Marine who does not handle a weapon with his finger straight and off the trigger. The ruthless focus culture that occurs at boot camp, Officer Candidates School, and TBS/School of Infantry/Marine Combat Training is a useful tool to achieve lasting organizational effects. Applying the same culture of disciplined attention to detail to the Marine Corps' newest operating environment—cyberspace—is a necessary undertaking.

Apply the same diligence to cyber awareness planning as we do to weapons safety. *(Photo by Sgt Derrick Irions.)*

All Services are testing how to best integrate cyberspace into their military doctrine, and the Marine Corps is focused on how to best align cyber capabilities into the MAGTF concept. Marine Forces Cyberspace Command (MARFORCYBER) is the Corps' lead integration arm for cyberspace efforts. Since its founding in 2009, MARFORCYBER has focused intently on how to protect the Marine Corps Enterprise Network (MCEN) from cyber threats and to create doctrine in order to better integrate cyber capabilities into the MAGTF.

One of the biggest challenges to MARFORCYBER's mandate is making obscure technical issues common to cyberspace into tangible concepts that all Marines can understand. While seemingly simple, explaining cyber to the most junior private or most senior general is difficult, and most of that difficulty involves the mundane minutia that was previously only of concern to Marines of a few specialty MOSs.

What was previously minutia is now a vital and daily concern that requires every Marine's attention. The current approach to educating our Marines is yearly computer-based training requirements along with the occasional briefing; in other words, it is given the same priority as dozens of other requirements and, therefore, quickly becomes background noise. The average Marine does not understand the vital importance of the networks they use because they are often trained to secure them in the same manner used to tell them to avoid drinking, driving, and unprotected sex during a weekend safety brief. Changing cybersecurity from the background noise most Marines hear into an action-like weapons safety briefing, something also mundane but vital, is a necessary shift in order to fight securely as a MAGTF in the 21st century.

Beneath cyberspace's complex, technical challenges, one constant is present: cyberthreats have been, and will remain, inherently human challenges.

Wider and deeper use of social media by Marines in their official and personal lives will only increase the attack vectors of cyber threat actors.

Cyberspace's complexity defies many traditional concepts about security and military strategy, but a quick examination of recent case studies where cyber attack, defense, and reconnaissance were prevalent reveal intrinsically human motivations and psychology.[2] While cyberspace's ways and means may be new, the ends sought through it are age old. Vulnerabilities, techniques, and tactics increasingly will seem to be from the pages of a science fiction novel, but the motivations behind them will be no different than those which drove Odysseus to sack Troy with a giant wooden horse. This distinctly human aspect to all activity in cyberspace is an opportunity and threat. As the most pernicious cyberthreats will continue to "involve a human adversary,"[3] the Marine Corps' network defense strategy must rely on hardening our Marines themselves. In order to decrease the Marine Corps' most vulnerable attack surface—the individual Marine—there must be a bottom-up culture of security and responsibility around our information infrastructure.

Two trends accentuate the need for a Marine Corps-wide culture of network safety. First, as the Marine Corps evolves its operating construct, it is evident that more capability will be driven downward. The strategic corporal has been alive and well for 20 years, but now that corporal can access PRC-117G networks that enable wireless tactical data communications. In the coming years, he may even use a tablet-like device from mission receipt to retrograde. Strategic corporals are networked corporals, and their vulnerabilities will be magnified if the Marine Corps doesn't equip them with the right culture. From experiments at the Infantry Officer Course[4] to the recent experiences of our sister Services,[5] the evidence of wider use and flatter application of networks is abundant. Secondly, cyber threat actors will continue to find their most viable attack vectors through human beings. Spearfishing, whaling,[6] and other means of targeted cyber attacks continue to remain the most common attack techniques, and the cost asymmetry of them imposes higher outlays on defenders than attackers.[7] Recent events demonstrate the danger posed by insider threats.[8] Wider and deeper use of social media by Marines in their official and personal lives will only increase the attack vectors of cyber threat actors. The common thread throughout the cyber domain remains human, and therefore enables age old techniques like military discipline, accountability, and acculturation to dramatically reduce the attack surfaces presented to the enemy with proper training and leadership.

Human threats and vulnerabilities will never be eliminated, but it would be negligent to do anything other than minimize them to the fullest extent possible. The Marine Corps, and the wider Department of Defense, has instituted mandatory computer-based cybersecurity training. These efforts are well intentioned but misapplied. Mandatory MarineNet training is more of a chore than a viable means of embedding principles. In order to be effective, the Marine Corps must make network hygiene and security a principle as sacrosanct as weapons safety. It is also ill-fitting to attempt to recreate difficult, and different, real-world training evolutions into a cyber equivalent. Such attempts will likely lose credibility from the start. There have been recent examples of such miscues as cyber operations penetrate more into military planning.[9] Instead of trying to emulate physical domain training and institutions that are intrinsically different, the Marine Corps should seek to create a no-nonsense culture around cyber that blends into all other warfighting functions. Cyber should be as much a part of what Marines do as weapons handling is, something that is not special but always in the background. Developing concrete lessons must serve as the beginning of such a development. An initial attempt, which could surely be better refined, are five proposed cyberweapon safety rules:

1. I will treat every network as vital, and never conduct activity that is not explicitly allowed.
2. I will never modify any Marine Corps computers or networks without explicit authorization from my chain of command.
3. I will keep all my official and non-official online activity guarded, because I am a Marine 24/7.
4. I will keep my chain of command informed of any dangerous cyber activity, because in cyberspace any risk to me is a risk to all others.
5. I know that my actions in cyberspace can have effects beyond their intended audiences, and I will keep my honor clean.

The intent of these rules is not to create fodder for the next *Terminal Lance*

Marine cyber network operators with 15th MEU. *(Photo by Cpl Emmanuel Ramos.)*

comic strip, but to begin an evolution that empowers Marines at the lowest level to take cybersecurity as seriously as they take weapons safety. Well-maintained, secured, and efficient networks are no longer only the realm of the S-6 (communications) alone. Marines increasingly rely on information technology, so it is logical for all Marines to take a more active role in network defense. The task of turning network security into an embedded principle of Marine Corps operations is more difficult due to delayed feedback loops. While a negligent discharge carries an immediate physical consequence, poor network security practices may not ever demonstrate their risk. Marines must continue to push network technology down "to the point of discomfort,"[10] while simultaneously connecting Marines to the consequences of improper behavior so they understand the why behind network security practices. Marine leaders will have to affect the same consequences for plugging a non-approved USB device into the MCEN as they would for negligent discharge. Those consequences must be consistent, rapid, and well known to all.

There are many means of achieving a Marine Corps-wide culture of network security. Network security must be taught at entry-level institutions, first with a focus on officer education at TBS, in order to develop a refined curriculum, following with SOI/MCT. Marine leaders should be integrating annual cybersecurity training into their training plans, and develop it from real-world events that have affected Marines. The effort should be to give cybersecurity training better sticking power than a click through MarineNet course. MARFORCYBER is working toward this end by creating a professional cyber publication. It will be similar to the quarterly or annual reports that companies such as Mandiant produce. An online blog is also underway, which could show the constant threat Marine networks are under through case studies. The aim of these forums would be to make the opportunities and threats presented by cyberspace into narratives that all Marines can understand, with a secondary goal of creating a professional whiteboard not only for the Marine Corps, but for the entire Department of Defense. Finally, MARFORCYBER continues to develop increased integration with all elements of the Operating Forces, with an underlying theme of making cyber relevant to the warfighters of all grades and MOSs. Until we successfully make cybersecurity as vital a part our Marine culture as weapons handling, our largest vulnerability, human beings, will remain more insecure than they need be.

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Education for an Uncertain Environment

We need a more effective teaching method

by Capt Dan O'Connell & Capt Matt Fallon

>The authors are currently assigned to the Instructor Education Program, TBS

Lecture formats are not the most effective way to teach. *(Photo by Cpl Grace L. Woladkiwics.)*

For Marines, the lecture method stifles the initiative and creativity the Marine Corps requires from its leaders. To execute maneuver warfare, Marines at all levels must make sound and timely decisions to out cycle their opponents. To do this, all leaders must develop sound judgment in their decisions. In his 2010 planning guidance, Gen James F. Amos stated, "We will better educate and train our Marines to succeed in distributed operations and increasingly complex environments."[1] Yet the Marine Corps training and education system is in some ways still grounded in outdated modes of instruction, most notably the lecture method, which is designed to produce massive citizen armies—formations that we may not need for the foreseeable future. There have been educational gaps both exploited and created across Marine Corps schools by hard working instructors. We need an instructional method that is in step with current adult education theory and capable of producing Marine leaders that the Commandant demands and the future operating environment will require.

Throughout their time in the Marine Corps, Marines of all ranks are often called upon to teach classes in both formal and informal settings. Unfortunately, the current teaching methodology most Marines are familiar and comfortable with is among the least effective methods to impart knowledge and create understanding.[2] In fact, the GOLMEST method (gain attention, overview, learning objectives, method/media, evaluation, safety, transitions) focuses on memorizing facts and data vice long-term retention, application, and innovative thinking. If the Marine Corps is going to produce leaders capable of confronting the myriad challenges the current security environment presents, we need a more effective teaching method. Current methods that focus on rote memorization and regurgitation without thought fall short of the task. We require a more holistic teaching methodology by first describing why the current methodology is ineffective.

According to studies as early as 1969 and as recently at 2012, only 10 to 30 percent of the population retains information from a lecture and can apply that information.[3] As an example, students routinely get in the habit of memorizing information for the test but consistently fail to apply and generalize concepts they were taught.[4] This

problem stems from two issues: first, how the brain functions, and second, what the lecture actually teaches. Adult education expert David Sousa explains this in his brain processing model. He suggests that information only transitions beyond working memory and into long-term memory when it becomes "useful" to the individual.[5] Information in working memory is prioritized in three ways: survival, emotion, and new learning. Due to the inability to evoke any of those three categories, information presented in a lecture typically will not make it past the working memory. Working memory draws on an individual's past experiences to help him answer two questions: Does this new information make sense? And does this information have meaning for me? When both questions are answered "yes," there is a high likelihood of long-term storage.[6] Consequently, appealing to adult learners at a visceral level will result in greater retention and application of new information. The second problem is the fundamental premise of the lecture. The lecture is predicated on the existence of a singular right answer. Students tend to believe that whenever they apply the techniques stated in the lecture or the textbook, they will be able to solve real-world problems. Perhaps this is because the "problems" developed for a lecture are carefully chosen to have a sanctioned answer, driven home by stale questions seeking a little "nugget" which launches the instructor on another long talk. Despite the world being an inherently complex and chaotic place, the typical lecture method only prepares students to deliver a "book" answer.

One approach to consider is the Adaptive Learning Model (ALM). In a 2009 article from *Assembly* magazine, Maj Chad Foster explains the power of evoking emotion as central to long-term and useful retention, through the ALM:

> Above all, ALM nurtures effective decision-making and adaptability through experiential learning. Experimentation first…the 'teaching' is accomplished through these (after-action reports or "wrap-up's") as the students discover for themselves the concepts and principles involved. Only after this has occurred, is the 'theory' or doctrine formally introduced by the instructor.[7]

Allowing students to experience an event relevant to the subject and, more importantly, make decisions in relation to the subject, ensures a far higher degree of retention. Additionally, decisions and critique foster judgment. ALM prepares a leader or a Marine for the true rigors of battle and challenges of leadership, to recognize patterns and choose an appropriate course of action. This is the leader that the modern Corps demands.

One effective ALM tool is the decision forcing cases (DFCs). A DFC is based on a historical situation.

One effective ALM tool is the decision forcing cases (DFCs). A DFC is based on a historical situation. The instructor retells the story from the point of view of a protagonist such as a squad leader, commanding general, or even the Queen of England. Upon reaching the point in which the protagonist has to make a decision, the instructor stops the story and demands that the students make a decision by placing themselves in the historical moment of the leader's dilemma. The instructor then facilitates a discussion that encourages analysis and diagnosis of the situation, allowing students to better understand key concepts through argument. The discussion and argument ensure that concepts will be stored in working memory. The flexibility to make a decision encourages deeper understanding versus rote, school-like regurgitation of information.[8] Additionally, students are placed under the constraints and restraints that leaders faced in all their complexity. Each situation in combat and leadership is unique and requires an individually tailored solution bound by the science of weapons and human nature. The primary purpose of the case method is "to develop the student's ability to solve complex and unstructured issues well."[9] Complex and unstructured issues define the operating environment that the Commandant envisions Marines operating in for the foreseeable future. To prepare for these operating environments, we need to move past the transmittal education model and adopt the case method approach through ALM, and the DFC specifically.

In addition to being a better vehicle for teaching, implementing the DFC has multiple benefits by second- and third-order effect. First, teaching and learning by the DFC develops a depth of subject knowledge for both instructor and student. This can include doctrine, tactics, techniques and procedures, and historical approaches. The DFC develops analytical and application skills which allow the student to analyze issues into key concepts then identify viable solutions based on knowledge developed from multiple cases. Third, when students defend a plan, they explore their own level of knowledge and reflect on personal values, ethics, and morals while strengthening communication skills. N.M. Webb's extensive research on interaction and learning in peer groups demonstrates that when students must explain concepts or defend a position, the exercise serves to improve their own understanding.[10] Further, Harvard University professor Erik Mazur points out that a classmate is more likely to reach another student than the instructor: "You're a student and you've only recently learned this, so you still know where you got hung up, because it's not that long ago that you were hung up on that very same thing."[11] This is the crux of the DFC. In an interactive classroom, objectives are reached more rapidly than in a traditional informal lecture. In an interactive learning setting, there are greater overall gains in knowledge and retention.[12] When students are required to reconstruct information in new and personally meaningful ways, that information is processed in such a way as to be meaningful and useful in other situations. Information-processing theories

stress that reformulating information and generating new ideas builds extensive cognitive structures that integrate new ideas with old knowledge.[13] Creating such elaborated memory structures fosters understanding of new information.[14] This method of education can develop a bias for action while providing the opportunity to cultivate the judgment required for maneuver warfare and the future operating environment. It is inexpensive and develops the teacher and student by broadening their knowledge of military history and doctrine. Finally, when the teacher employs a case with Marine Corps history, it builds a familiarity with our heritage, defined as a key component of our character by Col T.X. Hammes in *Forgotten Warriors*.

In a March 2014 *Marine Corps Gazette* article, Col Todd S. Desgrosseilliers, CO, TBS, identified that:

> By understanding their Corps' combat history, Marine second lieutenants visualize those leaders who have gone before them and recognize that what's expected of their generation as an extension of that heritage.[15]

At TBS, many classes have been transitioned to a DFC, such as night attacks, urban operations, and many more. Student feedback has all been overwhelmingly positive and the application of learning objectives in the field has reflected this positive attitude. To provide doctrinal language to the event, a discussion of learning objectives at the end of a case is usually required, and is much preferable to a 100-slide dissertation. Other formal schools have incorporated the DFC method as well. For example, Expeditionary Warfare School, Sergeant's Course, Command and Staff College, Infantry Small Unit Leader's Course, Infantry Officer Course, and Marine Corps Tactical Operations Group all use DFCs at length.

The number and topic of cases is limited only by recorded history and the creativity of the instructor. Cases can teach tactics and doctrine or they can teach ethics and leadership through challenging situations others have faced. They can teach how past Services have educated, armed, and equipped the forces. Currently, Marine Corps University's Case Method Project is spearheading the effort to spread the use of DFCs within our Service. They have a website that contains resources, summaries of a portion of their case library, and videos of cases being taught. This can be found at http://guides.grc.usmcu.edu/case_method.

The purpose of this article is not to condemn the lecture. The lecture will always be useful, especially to hear the experiences others have had, to hear a new theory or proposal, or as a presentation on a book. However, the lecture method should not be the default method of instruction for Marines at a formal school or in the Fleet Marine Forces. Does a DFC require more work than a lecture? Probably not. You will most likely study and prepare longer as an instructor building a DFC. But you will take far less time remediating what the students did not learn in lecture when you are in the field, in execution, or dealing with leadership challenges that the PowerPoint failed to prevent. The DFC appeals to adult learning mechanisms, and that means your Marines will learn more. It will deepen their understanding of military history, making them more thoughtful. Employing Marine Corps history examples will foster an appreciation of our heritage, a hallmark of the Corps. It will develop Marines' ability to argue and disagree tactfully, making leaders capable of persuading their subordinates and superiors of an appropriate course of action. Finally, it will make leaders who are capable of recognizing patterns and making decisions, a foundation of maneuver warfare and a skill set crucial to the future operating environment. If you care about the subject material you teach, transition that old platform class to a DFC, and see the difference for yourself.

At TBS, many classes have been transitioned to a DFC, such as night attacks, urban operations, and many more.

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Ears, Open. Keyboards, Click.

The dangers of distance learning PME

by Capt John H. Davis

"Our business, like any other, is to be learned by constant practice and experience; and our experience is to be had in war, not at reviews."

-Sir John Moore[1]

"The nation that makes a great distinction between its scholars and its warriors will have its thinking done by cowards and its fighting done by fools."

-Thucydides[2]

Despite improvements in technological advances, and increases in the promulgation of professional military education (PME) opportunities for our Marines and sailors, the Marine Corps is no closer to achieving a superior medium for educating junior and senior enlisted. Distance learning has been at the forefront of the fight against extremely high operational tempo and uneven waves of lost PME opportunities for our NCO corps. For a long time, Marine Corps Institute classes have provided a bulwark against these lost opportunities. However, from 2009 to 2014, we have seen a surge in enlisted resident courses that are now offered through distance-learning venues. Most notably, both the Corporal's Course and Sergeant's Course are now executed through MarineNet. As we widen the gap between instructor and student, teacher and scholar, and enlisted and officer, we must ask a series of delicate and ever-important questions when it comes to the way we train, educate, and entrust leadership principles to the subordinates under our command.

The Question

With the introduction of distance learning venues, the question has always been: am I getting the same learning outcome as the resident course? The simple answer is: no. The reason behind this is due to the limitations placed on a "do-it-yourself approach" to learning administrative and leadership duties that encompass the next higher rank. The application is in the doing, not the telling. I can always tell a fire team leader what a squad leader does. However, he will not fully comprehend the billet description until he earnestly *applies* the information given. If we are to apply an analogy, we will discuss the learning progression of a painter. I cannot give an art student a book on watercolors, test him out in an exam, and expect a Rembrandt in return. An artist can only get better by practicing his skill; which can be argued only with the strictest adherence to given procedures and steps. Similarly, this applies to the Marine Corps model of enlisted PME. The Corporal's Course and Sergeant's Course Distance Education Programs give a great head start to solidifying a particular path to follow in order to navigate the difficult labyrinth of administrative and leadership challenges. That said, these same programs do little in presenting realtime application of those fundamentals. Instead, these should be required primers to the respective resident courses but should not hold equal weight.

>Capt Davis is a platoon commander with 1st Fleet Antiterrorism Security Team, Marine Security Force Regiment.

The Gap between Officer and Enlisted

It cannot be denied that an unfair advantage has shifted to the officer side of the house with respect to PME opportunities and outlook. Officers, by and large, execute permanent change of station orders to their PME schools, as all of the opportunities are at least 6 months in length (with Maneuver Captain's Career Course in Fort Benning being the shortest for career-level schools). Furthermore, Command and Staff College, School of Advanced Warfighting, and the Marine Corps War College all provide opportunities for advanced degrees due to a memorandum of accreditation with the Regional Association of Schools and Colleges. These options certainly decrease the contemplations of transition into the civilian sector for the sole purpose of obtaining advanced degrees. Oppor-

tunities for officers not only include guaranteed dwell time away from the Operating Forces, but also solidify their purpose in the attainment of higher education. This, in turn, can promote a higher level of career placement if transition to the civilian sector has occurred.

Conversely, enlisted PME has restricted itself to a "fire and forget" type mentality that has consistently stymied results. Mostly, this is due to deficient time available for reinforcement of ideas and principles. The ability to correct these deficiencies is usually offset through unit training at the SNCO and company grade officer levels (i.e., platoon commander/platoon sergeant interaction.) The need to rely on less-than-available methods would be extricated by the development of a new system of elongated performance evaluation at a resident course. Thus, through simple planning measures, Training and Education Command can receive a better return on their product by simply combining PME opportunities like career course and advanced course into a single program of instruction for junior SNCOs. This would allow a comparable timetable to officer career-/intermediate-level schools. Current models for corporals, sergeants, and staff sergeants force a tremendous amount of material (especially administration) into a short timetable (which varies from 2 to 8 weeks.) In the case of tactical-level schools— specifically Squad/Machinegun/Mortar/Assault Leader's Courses—the practicality of shortening the timeline should be carefully weighed. Although the goal of tactical leadership courses is applying the fundamentals to new roles and billets, more time should be added to applying new age technology to historic questions through advanced tactical problem-solving events.

Still, the enlisted portion of the Marine Corps has seen very little headway concerning any effort to marry the educational accreditation of officer PME schools with similar efforts at enlisted venues. Master's degree credit for officer PME averages between 12 to 18 credits at places like the University of Oklahoma, University of Nebraska, Webster University, Auburn University, and Marshall University. No such opportunities exist for enlisted resident or nonresident PME programs. However, the functionality of the Marine Corps would indeed be hindered with the onset of a sudden fluctuation in available NCOs for needy units. In some operational units (Marine Corps Special Operations Command, Reconnaissance, CyberCommand, etc.,) a 6-month gap in NCO presence, simply put, is not sustainable. This is not to say that ground would be immediately lost. By extending 24- and 36-month orders out to 30 and 42 respectively, HQMC could guarantee NCOs appropriate time to fulfill PME requirements. When a Marine's time to PCS approaches, the losing unit would be compelled to farm temporary additional duty orders to school. The extension in orders written by Enlisted Assignment, Manpower and Reserve Affairs, would reflect a responsibility for gaining units to ensure PME completion prior to permanent change of station.

The Problem

The fix to the problems listed above has only been answered by the implementation of the same enlisted PME programs through distance-learning mediums. (This is a huge injustice to the enlisted corps.) The extension of distance education programs to the masses has widened the gap between learning and comprehension. The MarineNet style "click-a-thons" for Corporal's Course and Sergeant's Course is doing nothing for our Marines in terms of actually learning award writing, understanding fitness reports, conducting close-order drill, and comprehending warfighting. Practical exercise and practical testing of these concepts is particularly necessary for a solid and fundamental grasp of the material. As a warfighting institution, we cannot rely on distance learning to do the work for us. As a captain in the infantry, I take pride in every lesson, battlefield study, and piece of instruction I have taught. Instead of finding new and interesting ways to teach and publish these learned concepts, we are entrusting our leadership development to a computer program. We are telling our NCOs/SNCOs that they are not worth the effort. At least with officer nonresident programs, there is an extension of the human element attached. Students are expected to write posts on discussion forums, respond to peer and seminar leaders' questions/remarks regarding assigned reading, as well as contribute in practical exercises to integrate the MAGTF concept. Nonresident courses generally take 2 years to complete. Enlisted PME courses taken through MarineNet can be accomplished over a weekend or leave period. This is by no means the preferred method for retaining knowledge.

The Solution: Put an End to Distance Learning

It has generally been understood that even participation in online academic programs equates to better comprehension of warfighting material. However, as a warfighting institution, our training and educational methods are conditioned by the results they produce. If training is not regulated by a human element that determines comprehension and instills challenges, then our Marines are not learning in the same environment in which they were initially drilled. Marines will rise to the occasion, either by default or due to shared austere situations. Therefore, PME opportunities need to foster a sense of group or community by both enlarging the population and extending the time in which they are taught. The following examples will highlight these assumptions and provide recommendations for implementation.

Scenario One (see Figure 1 on next page) will focus on a corporal from an infantry battalion who is about to execute PCS orders to the Supporting Establishment. In the current model, these orders would normally stipulate a 36-month time-on-station (TOS) clause. In the new proposed model, we would provide a 6-month extension option that includes a guaranteed 6-month time period for Department of Defense-related schools, courses, and PME-related opportunities. This would take the corporal's orders out to 42 months, yet still provide the receiving command the same level of commitment from the individual Marine.

Marine needs PCS to supporting establishment	Options 36/42 month TOS requirement before PCS	At 36 months Marine chooses 6 months worth of approved courses or PME related opportunities based on eligibility	At 42 months, obligated TOS served, Marine executes PCS to FMF

* Note: If Marine options a standard 36-month TOS requirement, no guarantee is made for attendance at any formal schools or PME opportunities that the receiving command does not deem mission critical.

Figure 1.

Marine needs PCS to FMF from a supporting establishment	Options 24/30 month TOS requirement before PCS	At 24 months Marine chooses 6 months worth of approved courses or PME related opportunities based on eligibility	Marine attaches to a CONUS command on PTAD orders NTE 26 weeks; executes 6 months of schools/courses

* Note: Following 6 months of approved courses, the Marine will be at a 30 month TOS and receive full PCS orders to receiving command.

Figure 2.

Instructor and command opportunities will not be hindered by time lost to programs or courses.

Scenario Two (see Figure 2) involves a sergeant from the intelligence community executing 24-month unaccompanied orders to 3d Intelligence Battalion at Okinawa. These orders will be cut for 30 months and include an option for 6 months of PME-related schools or Department of Defense-approved courses to be taken upon redeployment to a CONUS command. The option can be utilized before or directly after checking into the receiving command. Question marks still exist as to whether the Marine opts to take the 6-month window before checking into the receiving command. However, these questions can be eliminated if the Marine is put on permissive temporary additional duty (PTAD) with a recruiting station in the vicinity of the receiving command. Administratively, this makes sense and can erase doubts on who owns the Marine for that time period as long as PTAD orders do not extend past a 27- to 28-week window and require additional PCS orders.

In the face of a highly diluted distance learning education phenomenon, the Marine Corps must find its roots and stride forward in redirecting our focus toward a higher employment of resident PME opportunities. The comprehension of decades' worth of warfighting philosophy depends upon it. The United States Armed Forces are not the only ones questioning the validity of applying distance-learning concepts. Many medical schools and physician assistant programs in the civilian sector continue to reinforce that prerequisite courses be taken at community colleges and universities without a distance-learning option. The similarities are obvious: programs that have an avid influence in making decisions that determine life or death do not want their pupils schooled in Internet-based courses. The reasons are stark enough that full investigation is not warranted. However, there is something to be noticed about the contrasting perceptions of educational comprehension rates based on differing instructional methods.

Conclusion

In his *History of the Peloponnesian War*, Thucydides remarked, "We must remember that one man is much the same as another, and that he is best who is trained in the severest school."[3] The Marine Corps has inadvertently cut corners in regard to enlisted PME. We can no longer prompt our NCOs and SNCOs to think conceptually in regard to warfighting through a mass injection of distance-learning opportunities. We owe it to our Service to close the gap between enlisted and officer PME schools and redirect the chance to increase operability of the command team. Only by including our enlisted corps in longer resident courses can this change occur.

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Finding Joseph

Turning one's premonitions into reality

by Maj Paul L. Stokes, USMC(Ret)

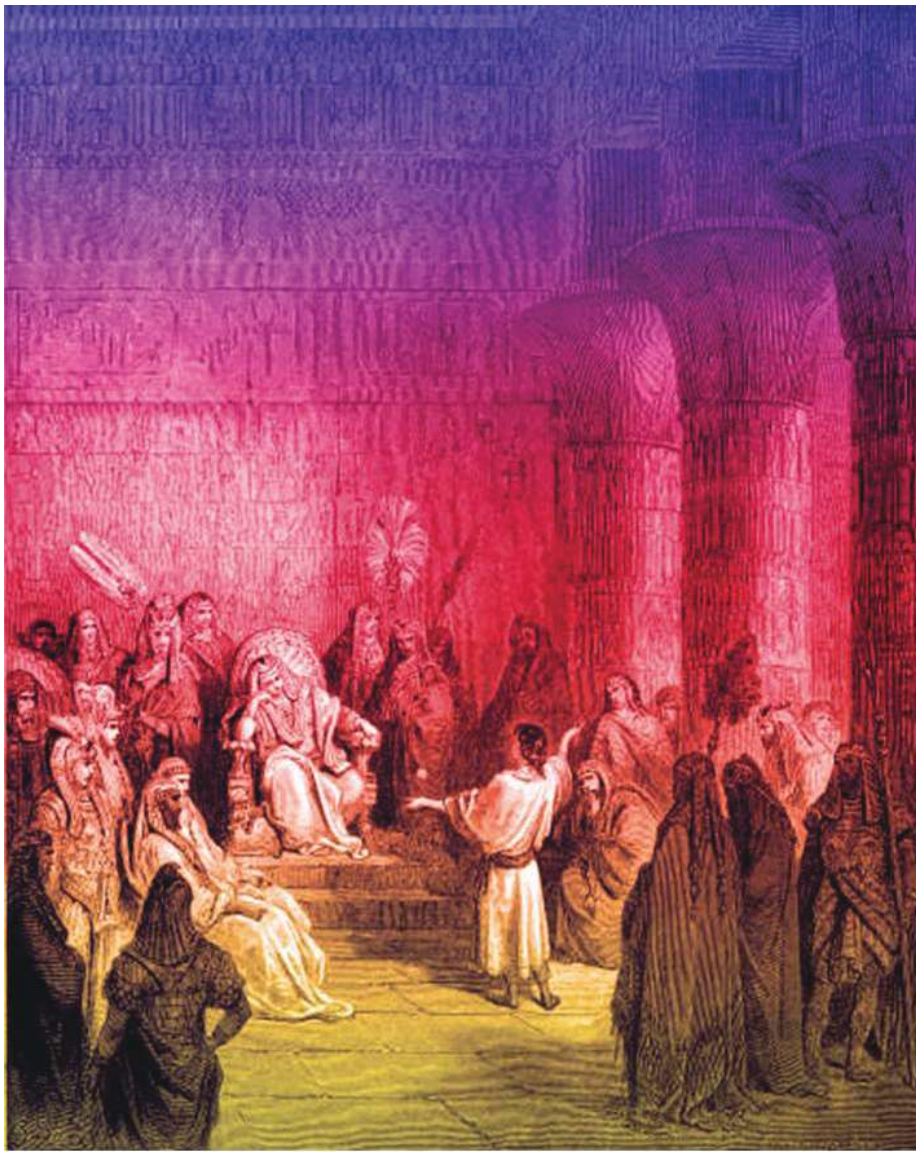
Throughout our history, Marine Leaders have experienced times of plenty and times of want. But predicting/preparing for such events has always seemed to be a mystery. The Great Pharaoh of Egypt faced a similar dilemma when he realized that the future of his kingdom was at risk, and that the only way he could secure its future was by looking outside of his palace.

> *And it came to pass that Pharaoh dreamed: and behold, he stood by a river.*
>
> *And behold, there came up out of the river seven well-favoured kine[1] and fat fleshed; and they fed in a meadow.*
>
> *And behold, seven other kine came up after them out of the river, ill-favoured and lean fleshed; and stood by the other kine upon the brink of the river.*
>
> *And the ill-favoured and lean fleshed kine did eat up the seven well-favoured and fat kine.*
>
> *So Pharaoh awoke.*
>
> *And he slept and dreamed the second time: and behold, seven ears of corn came up upon one stalk, rank and good.*
>
> *And behold, seven thin ears and blasted with the east wind sprung up after them.*
>
> *And the seven thin ears devoured the seven rank and full ears. And Pharaoh awoke, and, behold, it was a dream.*
>
> *And it came to pass in the morning that his spirit was troubled; and he sent and called for all the magicians of Egypt, and all the wise men thereof: and Pharaoh told them his dream; but there was none that could interpret them unto Pharaoh.[2]*

Premonitions

Like Pharaoh, we as leaders who care about the future of our organization(s) will naturally be inclined to experience our own premonitions, but these premonitions could be meaningless if one

>Maj Stokes retired in August 2006 after 31 years of active duty services. A former gunnery sergeant and Chief Warrant Officer 3, he has served in a variety of leadership and communications billets from the team to theater levels. Maj Stokes has served as the Marine Corps Communication-Electronics School's Director of Operations since June 2011.



Joseph interprets Pharaoh's dream. *(A painting by Gustave Dore.)*

has nothing but a staff of magicians and wise men. This requires us to look beyond ourselves and find the real meaning behind our thoughts because one's initial assessment of the situation may not necessarily be the correct one.

A Radical Decision

Pharaoh was obviously troubled by the fact that his magicians and wise men were unable to explain the meaning behind his dreams, which is why he asked his chief butler—the one man whom he knew the best—for advice. Fortunately, the chief butler was forthright and recommended that the Pharaoh should look outside the confines of his palace and seek guidance from Joseph, a Hebrew prisoner.

Joseph listened intently as Pharaoh described how "the seven fat kine and seven ears of stalk corn were devoured by the seven thin kine and seven ears of thin corn" and it soon became clear to him that what he was describing translated into seven years of plentiful harvests followed by seven years of famine. After hearing Joseph explain the meaning behind these "indicators," Pharaoh realized that he had just the man he needed to prepare his kingdom for the lean years that lay ahead, and elevated him to a position of high power and responsibility by making him his "XO"—a radical decision for the time, but in the end, the right decision, because Joseph spent the next seven years of plenty preparing the land for the coming seven years of want. And when the famine hit in full force, Egypt became the "breadbasket of the world," and Pharaoh was able to maintain a stable and thriving kingdom.

Finding Joseph

As leaders, we are often faced with the challenge of "Finding Joseph." A person, means, or process that will assist us in determining how our premonitions could be applied to prepare our organizations for the lean postwar years that lie ahead. Joseph can come in many shapes and forms, to include someone from outside a leader's command, but the common denominators will always include the following:

- Knowing the commander's intent/requirements better than the commander himself.
- Thorough, meticulous, and deliberate planning.
- Executing the plan in an aggressive manner.

Marine Corps Order 5311.1D, Total Force Structure Process (TFSP) can serve as one such Joseph because it outlines a proven staff process that will help ensure that a leader's premonitions are transformed into a reality that both accomplishes his mission and employs his resources in an efficient, logical, and sustainable manner.

What is TFSP?

The TFSP enables the command to translate needed organizational capabilities into force structure solutions, measure the costs providing these capabilities, and identify resource capabilities consistent with financial resources available to the Marine Corps as a whole. The TFSP transforms strategic guidance (top down), policy constraints, and commander generated (bottom up) recommendations into the integrated capabilities required to execute the Marine Corps' mission-essential taks. The TFSP relies on a detailed integration of doctrine, organization, training, material, leadership, personnel, and facilities (aka the combat development pillars—DOTMLPF) when identifying how Marine Corps capabilities will be provided.[3]

Joseph can come in many shapes and forms, to include someone from outside a leader's command, but the common denominators will always include. . .

The TFSP Input Phase

To begin the TFSP, strategic guidance is introduced through the Commandant's staff's analysis of the national security strategy, Joint vision, and the Commandant's planning guidance. Concurrently, Combatant and Marine force commanders will produce current operational results (bottom up). An integrated interpretation of these requirements will begin the input phase of the TFSP. The input phase produces tasks, conditions, and standards to be met in order for the Marine Corps to successfully accomplish its mission.[4]

TFSP Analysis Phase

If the Marine Corps is unable to perform mission-essential tasks to the condition and standards warranted, gaps are identified during the analysis phase. The phase is a deliberate process that could take up to 24 months to complete in conjunction with the program of memorandum budget cycle.[5]

TFSP Output Phase

After capability gaps are identified to the Commandant's staff through the analysis phase, the scale of the solution will drive the scale of the analysis executed by subject matter experts to identify DOTMLPF solutions and their implementation implications across the range of DOTMLPF. Courses of action and implications are then presented/submitted to the Marine Requirements Oversight Council (MROC) via the Marine Corps Combat Development Command (MCCDC) DOTMLPF Working Group (WG) for approval. The main product outlining the new requirements generated during this phase is an updated table of organization and equipment (TO&E).[6]

The question the Marine Corps Communication-Electronics School (MCCES), Marine Corps Air Ground Combat Center (MCAGCC) Twentynine Palms, CA, asked itself was, "How can Joseph help prepare us for the future?"

In 2007, it became clear to the MCCES leadership that "the times of plenty" were coming to an end, and they

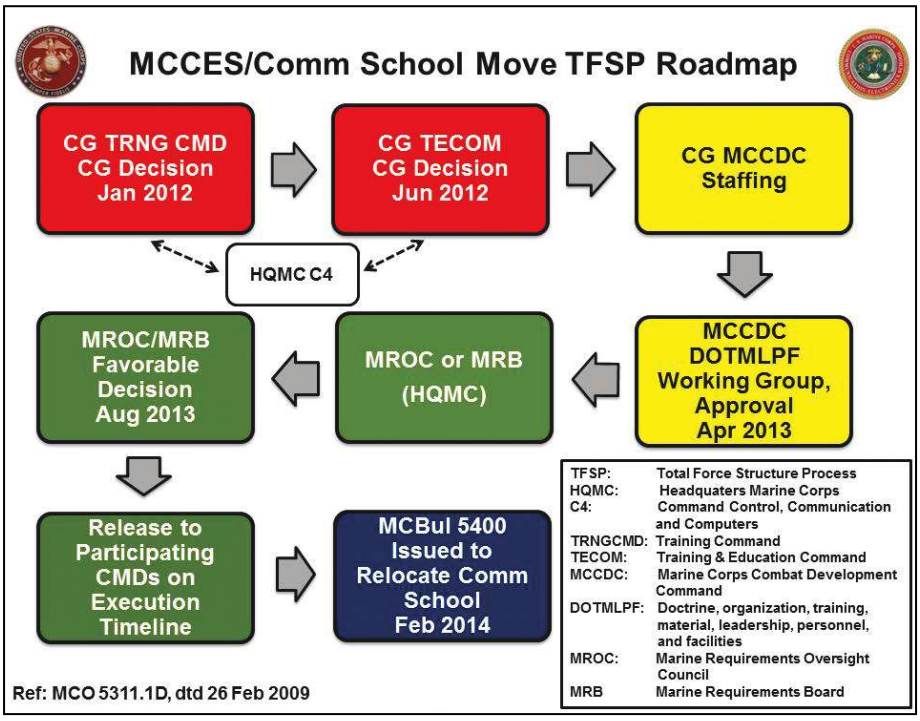


Figure 1.

were facing the challenge of maintaining/improving MCCES' ability to train Marines who are capable of ensuring that Marine commanders at all levels have the ability to exercise command and control in any environment in the rapidly approaching times of want. Fortunately, a Joseph was readily available to assist MCCES in the form of TFSP. After the completion of two formal cost benefit analyses (conducted by the Marine Corps Studies Program) and eight operational planning teams, it became clear the best solution was the consolidation of all communications, Marine air command and control system and communication-electronics maintenance officer and enlisted training under a single commander—the Commanding Officer, MCCES.

Over the next four year (2008–2012), MCCES used TFSP to successfully relocate the Low Altitude Air Defense (LAAD) School from Fort Bliss, TX, to MCAGCC and integrate it into its Marine Air Command and Control System School.

Upon completion of the LAAD School move in June 2012, MCCES focused on the relocation of the Communication Officer (Comm) School from Quantico, VA. Based upon lessons learned from the LAAD School relocation, MCCES created a TFSP planning roadmap (i.e., Joseph's guidance) (see Figure 1) enabling them to track the progress of this evolution.

With Joseph's guidance in hand, and with the approval of the Commanding General, Training Command, MCCES subsequently made direct liaison with of the DOTMLPF WG members, to include representatives from Deputy Commandant, Concepts, Development, and Integration (DC, CD&I); Plans, Policies and Operations (PP&O) Department; Manpower and Reserve Affairs (M&RA) Department; Installations and Logistics (I&L) Department, Programs and Resources (P&R) Department, and Total Force Structure Division-Supporting Establishment (TFSD-SE) prior to the formal WG meetings in Quantico, VA. Through these liaisons, MCCES answered/addressed a wide range of DOTMLPF WG questions/concerns. Furthermore, MCCES received guidance on how to properly present this information in approved formats that met the requirements of the CMS staff sections represented by voting members. These discussions produced a Comm School relocation proposal that received a unanimous DOTMLPF WG recommendation for approval to the MROC. This, in turn, paved the way for TFSD-SE to issue Marine Corps bulletin 5400 directing the relocation of Comm School to MCAGCC in Summer 2014.

The Bottom Line: Don't Be Afraid to Look Outside the Palace

What made Pharaoh successful was the fact that he never forgot that, as a leader, he needed to be willing to look outside of his palace for a Joseph who could help him transform his dreams/premonitions into reality. As Marines, we can achieve the same results using TFSP once we accept the fact that TFSP is a marathon, not a sprint. Ergo, we need to be prepared for delays caused by personnel changes, uncertain budgets, and shifts in strategic/operational priorities. This may create a situation wherein a leader may never see the final results of his work, but that leader can be content in the knowledge that regardless of how long it takes to transform his premonitions into reality, the end state will be an improved, combat ready Corps of Marines.

Notes

1. Kine (kain), an archaic word for cows (Old English cȳna of cows, from cū cow), *Collins English Dictionary*, complete and unabridged 10th edition (Scotland: William Collins Sons, 2009).

2. Genesis 41:1–8, *The King James Bible*.

3. Headquarters Marine Corps, *Marine Corps Order 5311.1D, Total Force Structure Process (TFSP)*, Washington, DC: 26 February 2008, Chapter 1.

4. Ibid.

5. Ibid.

6. Ibid.

Train How We Fight

Training policy must reflect our warfighting philosophy

by Capt Stephanie A. Mafrici

In order to develop initiative among junior leaders, the conduct of training—like combat—should be decentralized. Senior commanders influence training by establishing goals and standards, communicating the intent of training, and establishing a main effort for training. As a rule, they should refrain from dictating how the training will be accomplished.[1]

MCDP 1, Warfighting

Our warfighting philosophy is part of our warrior ethos; it should permeate our actions and be expressed in our day-to-day lives as Marines. We have become incredibly adept at mission tactics and decentralized control in combat. As our junior leaders return from deployment, they find their responsibilities stripped and the trust of their seniors gained in combat gone. The policies governing the way we conduct annual training must change to allow the decentralized control and mission tactics carried out in combat to be executed at the lowest level in garrison. The 35th Commandant has directed a reawakening of our junior leaders.[2] The NCOs are awakened—they are willing and able to accomplish the mission in garrison as they have in combat.

In his article, "The Road to Hell," Maj Gregory A. Thiele expressed:

> One of the primary reasons for this decline in training management skills is the predeployment training plan (PTP) . . . leaders at all levels are no longer required to be proficient trainers . . . This is not a training management problem, it is a policy problem.[3]

>Capt Mafrici is currently attending Expeditionary Warfare School. She previously served as a Staff Platoon Commander, Basic Officer Courses 5–12 and 4–13. In 2009, she deployed in support of Operation Iraqi Freedom as a Platoon Commander, Communications Company, 2d Marine Logistics Group.

Training policy must adhere to our warfighting philosophy. Instead of trying to solve each problem with a centralized, program-driven solution, we need to empower and trust commanders to train their Marines using the best methods for their unit in their particular situation. The prescriptive nature of annual training orders must be eliminated; we must have a clear and focused intent to execute. All annual training requirements must be ruthlessly examined with the goal of aligning four criteria with our warfighting philosophy: trainers, training methods, reporting requirements, and time.

Current System

Marine Corps Bulletin 1500 is published annually to provide a centralized location for all annual training and education requirements for Marines. This bulletin itself does not include mission essential tasks, additional mandatory training for collateral and extra duties, predeployment requirements, MOS training, or professional military education (PME) requirements. Marine Corps Bulletin 1500 references 15 Marine Corps Orders (MCOs) and 8 Marine administrative messages (MARADMINs). These regulations are highly prescriptive, and remove the trust our organization requires in its officers, SNCOs, and NCOs to lead. This order must be drastically reduced and the associated annual training MCOs must be edited to reflect our doctrine.

Trainers

The Marine Corps Manual states:

> The responsibility for both individual and unit training is vested in the commander. The commander shall ensure that all training is responsive to Marine Corps requirements and is progressive, practical, and challenging to the individual and the unit concerned. Training will be accomplished primarily by the employment of resources organic to the unit. Emphasis will be placed on the indoctrination of junior leaders in proper methods of training and instruction.[4]

Our current orders remove the authority to train Marines from the commander and deny a Marine's NCO the ability to conduct training for that individual. NCOs are not trusted to train Marines in anything, either from the basics—such as nutrition and physical fitness—to more specialized problems like hazing, sexual assault, and drug abuse. No training should be conducted by personnel outside a Marine's direct chain of command. The primary instructor responsible for training must also be responsible for the Marine. Sub-

ject matter experts, either Marines or civilian personnel in "key billets," must not be required or allowed to train all Marines in a command.

For example, per Marine Corps Order 1752.5B, Sexual Assault Prevention Response (SAPR) personnel must "facilitate annual training on sexual assault awareness, prevention, and response for all Marines in their unit." What may typically happen is an officer or SNCO from Headquarters Company who is the Uniformed Victim Advocate teaches SAPR to the entire battalion in the form of several lectures throughout the year. Marines in the unit go to this lecture and sign the roster which is then inputted into their record to prove they received training.

Designated individuals within the command who have been to formal training may know the most up-to-date and accurate information; however, they are not part of the Marines' chain of command, and they often do not personally know the Marines they train. They do not see the Marine on a daily basis, and they are not able to talk to the Marine about the concepts in a way that is relevant to the individual. They cannot verify that learning has occurred upon completion of their class and are not able to follow up on the training once the class is complete.

Centralized trainers should be used only in entry-level training environments to facilitate the introduction of a concept during the transition from civilian to Marine. In commands, junior officers should have the authority to tailor the information to fit their individual units. NCOs can, will, and must be required to research the correct information. If a Marine has a question about the subject, he or she is then able to ask the NCO he or she sees every day.

In addition, centralized classes reported annually give a perception that we have discussed this topic and do not have to do so again. Unfortunately, a signed roster from a lecture is not proof that a Marine learned. In fact, it's proven that large group lectures are not as effective in teaching concepts—particularly critical thinking—as are small group discussions using active learning.[5] [6] These small group discussions do not need to be reported once a year, they need to be conducted until the Marines learn and their behavior changes. This can only be evaluated at the small unit level and must be done constantly, instead of annually.

The best training is not a lecture from someone outside the command. *(Photo by Cpl Orin J. Farmer.)*

Current policy encourages commanders to use key personnel and approved, centrally controlled lecture material. Commanders are focused on submitting rosters to prove the centralized training occurred by the due date. Policy must encourage commanders to focus on teaching junior leaders the methods to conduct effective training. Even GEN Martin E. Dempsey, USA, the Chairman of the Joint Chiefs, admits that "we know PowerPoint doesn't work" when it comes to leadership and ethical training.[7] NCOs and junior officers have seen how ineffective top down training is and they want to conduct small, meaningful discussions with their Marines instead. We must give them the authority to do so, train them in effective methods, and trust them to conduct the training throughout the year as is appropriate for their individual Marines.

Training Methods

Since our commanders are graded on reporting vice training quality, the emphasis of the annual training orders has been to give commanders a centralized way to meet reporting requirements. Many annual training requirements are conducted on MarineNet, and once a Marine completes the series of courses prescribed online, those courses are automatically entered into the Marine Corps Total Force System.

With competing priorities, including MOS and predeployment training, the number of hours required for computer-based annual training is overwhelming and the training cannot be successfully completed during normal business hours.[8] Due to these conflicting mission priorities, unrealistic time requirements, and lack of computer assets throughout the Marine Corps, computer-based annual training is often conducted during a Marine's personal time.

The flexibility of doing these courses at a Marine's individual pace and the amount of information given in the computer courses is sufficient for training; however, Gen James F. Amos has stated that he wants small unit leaders "out from their computers and in front of Marines."[9] NCOs who need assistance in developing their instruction style could use computer-based training, as they use technical manuals or other references, but at the individual level a Marine must be trained by their unit leader. We should entrust and expect squad and team leaders to talk to their Marines about tobacco cessation, sexual health, and physical fitness. NCOs should know these expectations because

they have discussed them with their platoon sergeant and platoon commander, who in turn were taught by their company first sergeant and company commander. A completed computer course is not proof that a Marine was effectively trained; it is only proof that a Marine was provided an opportunity to receive information.

Reporting Requirements

Each individual annual requirement is required to be reported into a Marine's record. This can be reported in two ways. The first is through a signed roster, inputted by the unit's training manager. The second is through the automatic reporting of MarineNet. The CFT, PFT, and rifle range scores are later used as objective scores for a Marine's proficiency and conduct calculations and master brief sheets. These scores should still be reported because they are an objective and quantified demonstration of a Marine's proficiency with the annual training requirement. This provides the commander valuable information about his unit such as, for example, how many Marines are qualified as rifle experts. With this information, the commander can tailor adjustments to his unit's training to make his unit more effective.

Reporting class completion, unlike an objective score, does not tell the commander anything. Neither signed rosters nor computer-based course completion certificates indicate any level of understanding or proficiency. What decisions can a commander make based off this reporting? What changes to the effectiveness of his training plan can he make with this feedback? None, because the reporting does not measure effectiveness. Reporting requirements must be eliminated for all non-objectively scored events.

So, how does a commander measure the effectiveness of training for these non-objective issues? How does a commander prove that he has done all he can to reduce sexual assaults, prevent alcohol-related incidents, and improve the health and fitness of his Marines? Even though "we know that 98% of our Marines are doing the right thing,"[10] these issues still happen!

In attempting to solve this problem, decision making was taken from leaders and pushed further up the chain of command. More orders and regulations were created, instead of focusing on small unit discussions about the problems in our Corps. We accepted this top down solution over and over, even though it goes against our leadership culture of decentralized problem solvers. This solution did not solve the problem!

Specifically, after completing our annual SAPR training last year, the number of Marines reporting sexual assault increased 86 percent.[11] This proves the annual training we conducted and the information about how to report sexual assault has reached the masses through this centralized method. However, "surveys, focus groups and repeated meetings with servicemembers throughout the year suggest that the number of actual incidents—from unwanted sexual contact and harassment to violent assaults—has remained largely steady."[12] Although it is a great stride to have such an increase in reporting of these incidents, in order to solve the problem, we must reduce the number of incidents in the first place. There is no one method to solve this issue Marine Corps wide; the situation is different for each command, company, platoon, and squad. Each leader must conduct his or her own analysis of the situation and utilize the resources organic and specific to the unit.

. . . our culture has become fulfilling requirements and completing paperwork.

Time

The Marine Corps doctrine of mission tactics requires that we focus on the purpose behind the tasks we are given. We focus on the purpose for a reason—the task can become irrelevant or unnecessary. The purpose behind annual training has become overwhelmed with tasks that are not relevant. Leadership at all levels knows these requirements are not effective. We need to prioritize the valuable time we have to train our Marines, and we need to encourage innovation at the small unit level. As the 2012 study conducted by Expeditionary Warfare School shows, the amount of training required exceeds the amount of time we have.[13] We simply do not have the time for a check in the box, report 100 percent completion mentality. With over 800 Marine Corps orders currently published in the electronic library found at www.marines.mil, numerous MARADMINs and additional policies, our culture has become fulfilling requirements and completing paperwork. We spend our limited time with our Marines collecting rosters, clicking through computer training and advancing slides in PowerPoint—time that should instead be spent knee-to-knee with a Marine.

Conclusion

MCDP 1, Warfighting, states, "Trust is an essential trait among leaders—trust by seniors in the abilities of their subordinates and by juniors in the competence and support of their seniors. Trust must be earned, and actions which undermine trust must meet with strict censure." The Service-wide approach we have taken to annual training undermines the very trait we deem essential in our doctrine. We must trust a commander to train Marines and enable a commander to do so by eliminating centralized training requirements.

"The Marine Corps either selects individuals capable of discharging the responsibilities of command, or we do not. If we do select the best, then we should trust them."[14] We need to stop focusing on data collection and prescriptive orders which undermine the trust of our leaders. Instead of demanding stats and rosters, leadership must supervise. Leaders must be physically present and give feedback on the training provided. They must ask questions from their immediate subordinates down to the individual Marine to verify understanding of the orders and expectations of the command. The issues presented

in annual training must not be taught and verified complete once a year nor should it be centralized, one-size-fits-all; but discussed consistently by leaders at all levels and in small, engaged groups. We must measure effectiveness by leadership presence. We must stop accepting that we can prove Marines were "trained" by showing rosters and certificates. We must prioritize the time we have on truly leading our Marines. It is time for a culture shift back to our roots, and a reawakening of our training methodology in garrison. It is time to train how we fight.

Notes

1. Headquarters Marine Corps, *Marine Corps Doctrinal Publication 1 (MCDP 1), Warfighting*, (Washington DC: Headquarters U.S. Marine Corps, June 1991), 60.

2. Gen James F. Amos, CMC letter to Corporals and Sergeants, "The Reawakening, Washington, DC, 16 October 2013.

3. Maj Gregory A. Thiele, "The Road to Hell," *Marine Corps Gazette*, August 2010.

4. Headquarters Marine Corps, *Marine Corps Manual* with Change 1–3, (Washington DC: Headquarters Marine Corps, 21 March 1980), 2–15.

5. G. Gibbs, "Twenty terrible reasons for lecturing," Occasional Paper No. 8, (Birmingham, England, 1981), accessed at: https://www.brookes.ac.uk.

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10. Ibid.

11. Lolita C. Baldor, "Reports of sexual assault in the military jumped 50 percent in 2013," Associated Press, 27 December 2013, accessed at: http://www.pbs.org.

12. Ibid.

13. Expeditionary Warfare School.

14. *Marine Corps Manual* w/Change 1–3.

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Operationalization of the Reserve

HIMARS support to III MEF

by LtCol Jonathan P. Dunne

As our Corps reduces the Active Component to form a "middleweight" force optimized for crisis response and forward presence, the Reserve Component will be required to source service requirements for a major contingency operation and must be prepared to fulfill potential shortfalls in global rotational requirements to be our Corps' "Purpose Built Shock Absorber."

–LtGen Richard P. Mills, Commander, Marine Forces Reserve

14th Marines, the Service's Reserve Component artillery regiment, has leveraged unique training opportunities to deploy capabilities and train to core mission essential tasks (METs) while fulfilling gaining force commander operational requirements. Specifically, the Headquarters of 14th Marines is the sole artillery regiment with a mission to serve as a force artillery headquarters; III MEF and 14th Marines have routinely exercised this capability in the past few years, to include participation in Exercises Ulchi-Freedom Guardian, Key Resolve, and a recent Combined Marine Component Command (CMCC) post exercise in cooperation with Marines of the Republic of Korea. During Spring 2014, III MEF participated in a series of exercises focused on the Korean Peninsula under the umbrella term "MEFEX." For this period, III MEF requested not only the force artillery headquarters capability but also a rocket battery firing element from Marine Corps Forces Reserve. In answer to the call, 2d Bn, 14th Marines deployed a HIMARS (high-mobility artillery rocket system) platoon from Battery D, El Paso, TX, reinforced by a Support Wide Area Network (SWAN) communications team from 7th Communications Battalion, and observers from 5th Air/Naval Gunfire Liaison Company (ANGLICO), III MEF, to conduct the first Marine HIMARS live fire exercise on the Korean Peninsula. This combined joint live fire exercise nested with III MEF's execution of maritime prepositioning force (MPF) offload Exercise Freedom Banner and also the 3d MEB amphibious Exercise Ssang Yong, is a superb example of total force, joint force, and combined force integration. This article will highlight

The HIMARS. *(Photo by LCpl Aaron S. Patterson.)*

>LtCol Dunne is the Inspector-Instructor, 2d Bn, 14th Marines, Grand Prairie, TX, and frequently supported 14th Marines Force Artillery Headquarters' participation under the III MEF 2012–2014 Exercise Series.

the unit's preparation and deployment, exercise execution, and future opportunities that exist for the HIMARS community, the Reserve Component, and the Pacific Command.

Deployment Preparation

Previous III MEF exercises, supported by 14th Marines' Force Artillery Headquarters, established the framework for a HIMARS deployment to include a live fire training exercise. In Fall 2013, III MEF released a precoordinated feasibility of support (FOS) message requesting a HIMARS platoon-sized element to participate in three separate exercises under the MEFEX umbrella. In response to the FOS, the platoon was tailored to strike a proper balance between operational requirements and fiscal prudence. Specifically, the deploying unit, largely comprised of Marines from the Selected Marine Corps Reserve (SMCR), conducted staggered, extended annual training evolutions to meet the advance party, main body, and rear party requirements that spanned the months of March and April 2014. The platoon was bolstered by core members of 2d Bn's Inspector-Instructor staff, and was then further reinforced once deployed in theater by III MEF detachments to meet the unit's liaison, fire support coordination, and long-range communications requirements. Finally, the platoon was outfitted with a hybrid equipping solution, in which HIMARS-unique equipment would be deployed to Korea from Battery D in El Paso, and the remainder of the unit's standard equipment was drawn from forward postured maritime prepositioned shipping.

Exercise-Execution

Battery D participated in three separate exercises during its outside CONUS Annual Training. First, the forward-deployed advance party and rear party participated in Exercise Freedom Banner, III MEF's MPF offload that enabled the battery's hybrid equipping solution using in-theater resources. Additionally, the unit's reinforced HIMARS platoon, alongside the United States Army's 210th Fires Brigade (2d Infantry Division (2ID), 8th Army) with Battery A, 6-37 Field Artillery (M270A1 MLRS [multiple launch rocket system]) and the Republic of Korea's "ROK 5000" (M270 MLRS), participated in a combined, joint live fire exercise conducted at the Saint Barbara's artillery range located in proximity of the Rodriguez Live Fire Complex. This exercise consisted of a series of mission injects that replicated anticipated operational plan (OPLAN) deep fires and counterfire command and control arrangements. Finally, Battery D was afforded the opportunity to align under 3d MEB and participate in the Combined Forcible Entry Operation/Amphibious Assault Exercise Ssang Yong. Each exercise is further detailed below.

HIMARS in action. *(Photo by Cpl Lauren Whitney.)*

Exercise Freedom Banner. Marines from 2d Battalion deployed from CONUS, and under III MEF were integrated under an established arrival and assembly operations group (AAOG). "Common equipment" such as Service standard rolling stock and communications equipment was drawn from the United States Naval Ship (USNS) *Bobo* (T-AK 3008) to meet the foundational equipment needs of the unit. Inventories, joint limited technical inspection (LTIs), and equipment memorandum receipt custodial efforts were exercised. The unit's advance party and the associated Freedom Banner/MPF equipment was then aggregated with the main body and CONUS-based, HIMARS-specific equipment suite as part of a formal reception, staging, and onward integration (RSO&I) process executed at the Rodriguez Live Fire Complex before deploying to conduct tactical exercise support. 2d Bn's small role in Freedom Banner again validated the Maritime Prepositioning Program, as HIMARS capability was efficiently aggregated in theater to support Phase Zero theater requirements, in large part due to these forward postured resources.

Combined Joint Live Fire Exercise (CJLFEX). Immediately after executing its RSO&I at the Rodriguez Live Fire Range Complex, Delta Battery's reinforced HIMARS platoon conducted a tactical vehicle convoy into the Saint Barbara's Range in preparation for its combined joint live fire exercise to be conducted in "Artillery Valley." Coordinated by III MEF, the United States Army's (2ID and ultimately the theater army, 8th Army (8A) Headquarters agreed to source a brigade tactical operations center out of the 210th Fires Brigade (210th FiB). The 210th FiB also brought forward a battalion command and control slice out of the 6-37 Field Artillery (6-37 FA), as well as a Multiple Launcher Rocket System (MLRS M270A1) platoon from 6-37 FA's Alpha Battery to support command and control and joint rocket/missile training.

Additionally, 210th FiB habitual partners, the ROK 5000 (M270 MLRS), brought forward a firing platoon to enable combined operations.

On behalf of the MEF and 2d Bn, 210th FiB coordinated range scheduling, range safety, and also facilitated HIMARS ammunition transportation and handling requirements. Further, they also served as the catalyst to create a live fire exercise that was truly joint and combined in nature. Specifically, as outlined in Figure 1, the 210th FiB generated 15 MSLs that largely exercised HIMARS/MLRS fire support requirements through joint and combined command and control nodes. These MSL–injects tested the HIMARS platoon's ability to execute general support (GS), reinforcing (R), and general support reinforcing (GSR) tactical tasks, exercise theater-specific counterfire procedures, and otherwise fulfill deep fires requirements as part of the MAGTF. Voice and digital processes were exercised as part of the command and control construct.

In addition to this important command and control, live fire achievement, the HIMARS platoon achieved immeasurable gains by participating in an unfamiliar clime. Battery D normally trains at its adjacent Fort Bliss training area or partakes in 2d Bn, 14th Marines' annual training exercises, commonly executed at Fort Sill. Both of these CONUS training venues are "familiar terrain;" the mountainous, restrictive terrain found within the ROK is dissimilar to typical CONUS training environments. The unit was able to make marked gains with convoy operations, position area selection, emplacements, consideration of masking data and intervening crests, and high frequency communications proficiency.

Ssang Yong. In addition to support to III MEF exercise Freedom Banner and the CJLFEx, the HIMARS platoon participated in 3d MEB's exercise Ssang Yong. As a part of this exercise, 3d MEB was constituted afloat and with South Korean and Australian partners conducted a combined forcible entry operation training exercise. As part of this amphibious exercise, HIMARS-specific capabilities were embarked onto the USS *Harpers Ferry* (LSD 49)

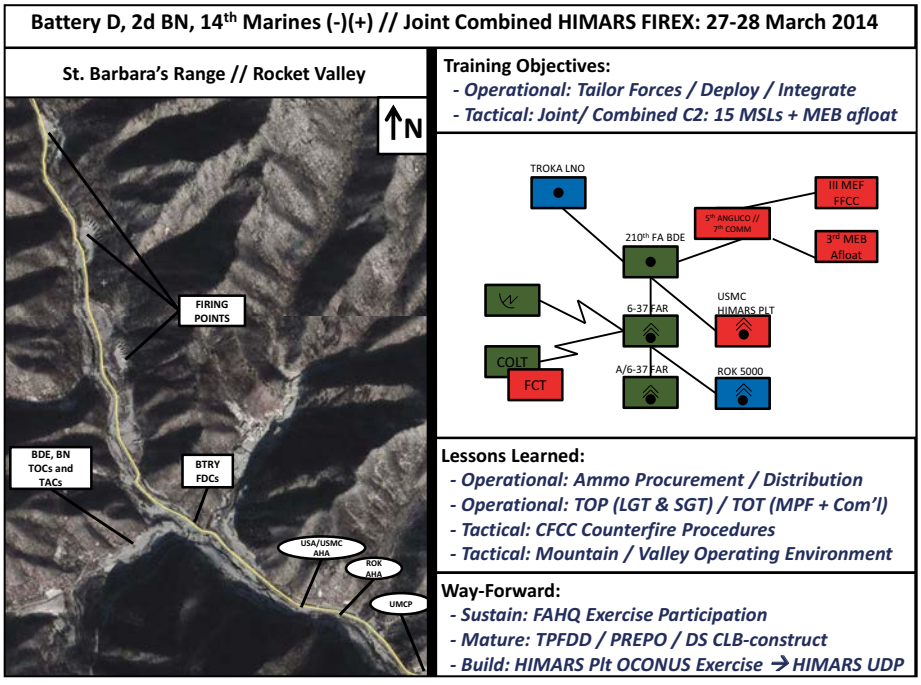

Figure 1.

to examine embarkation considerations linked to HIMARS platforms and ammunition. Further, the HIMARS platoon participated in the amphibious assault and was then tasked to simulate general support shaping fires in support of MAGTF operations. 3d MEB, supported by a small FA headquarters detachment, was able to discuss and exercise foundational MAGTF afloat fire support and fire support coordination practices as it applies to HIMARS support to MAGTF operations. Further, as outlined in Figure 2, the HIMARS platoon was able to gain a firm appreciation of the ship-to-shore-to-position-

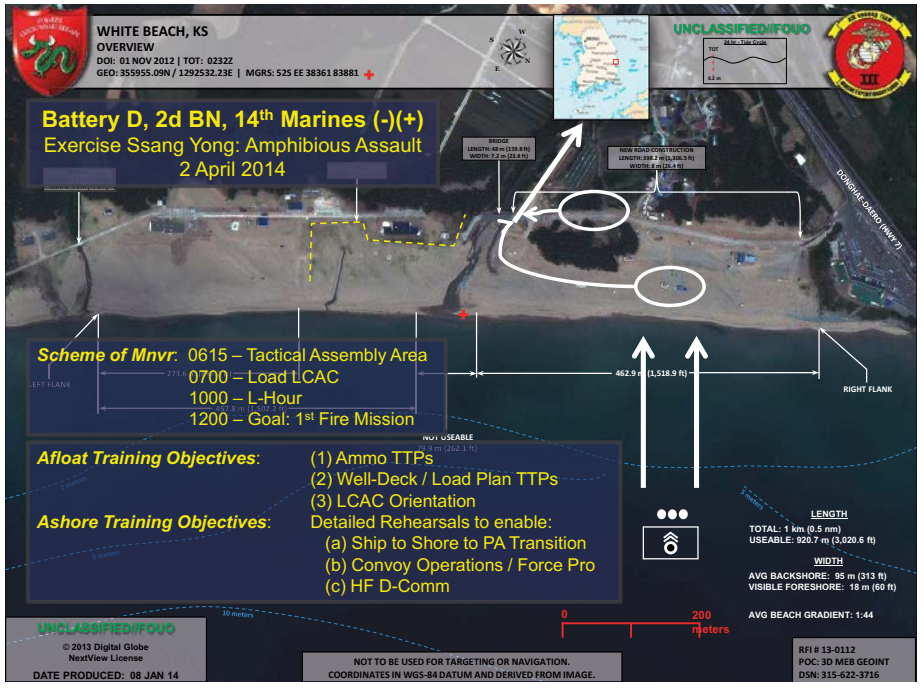

Figure 2.

area transition, in addition to gaining familiarity training with LCACs and amphibious ships to include well-deck operations and scrutiny of magazine-to-HIMARS launcher ammunition transition. Finally, the HIMARS platoon was able to conduct standards-based training and detailed assessments linked to the warfighting functions. Specifically, convoy operations, local security efforts to include vehicular and foot mobile security patrols, section-level emplacement, simulated live fire training, casevac and mass casualty drills, and high frequency communications were exercised and assessed.

Significance

Battery D's participation in the spring 2014 III MEF Exercise series was of absolute benefit to the HIMARS community, the Reserve Component, and to III MEF. Battery D's achieved success has established a foundation for the following advancements:

HIMARS live fire opportunities in the Pacific. Battery D was not the creator, but the benefactor of the in-theater live fire exercise. III MEF's force fires coordination center continues to work diligently to create future training opportunities for Marine Corps rocket/missile platforms. 2d Bn anticipates future opportunities to deploy platoon-sized elements to conduct live fire exercises in this all-important theater of operations.

Service prepositioning efforts. MEF and Marine Forces Reserve (MARFORRES) planners gained a much stronger appreciation for the need for prepositioned HIMARS capability in the Pacific theater. Not only does III MEF lack organic HIMARS capability, but Service issues regarding theater ammunition procurement and distribution were challenges the MEF planners were required to overcome in execution. While the MPF program was exercised and ultimately successful in supporting this spring's 2014 III MEF exercise series, there is a clear gap in postured HIMARS capability in support of this priority theater. Posturing initiatives such as refined Maritime Prepositioning Support Squadron (MPSron) equipment constitution (forces), a HIMARS unit deployment program (rotational footprint), and associated agreements with theater partners are gaining momentum and should be further bolstered.

HIMARS tactical proficiency. Battery D, collocated at Fort Bliss, is largely accustomed to desert-like training environments, to include flat, favorable terrain for maneuver, emplacement, and very high frequency communications. The terrain of artillery valley at Saint Barbara's Range tested the Battery's ability to conduct convoy operations in mountainous, unfamiliar terrain, occupy congested and, at times, unforgiving ground, consider local security challenges like no other than what they had previously experienced, and put into practice their nascent high frequency communications capabilities. From force tailoring to the conduct of indirect fires to its linkage to counterfire missions, Battery D exercised its core mission essential tasks and matured from the opportunity to perform in this unfamiliar environment. Further, Battery D's participation in the Ssang Yong exercise addressed a core-plus mission essential task of the unit. Finally, there were immeasurable gains made by Battery D as they were afforded the opportunity to train with combined partners, a very credible joint partner, and under a total force construct. In short, Battery D enhanced its ability to perform its essential tasks and broadened its ability to operate "in any clime or place."

. . . there is a clear gap in postured HIMARS capability in support of this priority theater.

MARFORRES outside CONUS deployment muscle memory. The Marine Corps intends to preserve a post-Operation Iraqi Freedom/Enduring Freedom operational reserve, and MARFORRES's declaration is to be "ready, relevant, and responsive." As such, the willingness of 14th Marines, 4th MarDiv, and MARFORRES to enable Battery D's deployment to III MEF was an incredible opportunity to test the Battalion's ability (both the SMCR Marines and the active duty Inspector-Instructor staffs) to prepare to deploy a tailored force overseas. The mechanics of outside CONUS deployments can be fully exercised—even with only a platoon-sized deployment—and is the ultimate litmus test of readiness. Platoon-sized outside CONUS deployments will properly exercise MARFORRES deployment skills while remaining mindful of current and future fiscal constraints.

Conclusion

Battery D, 2d Bn, 14th Marines completed an exceptional annual training exercise under III MEF and 3d MEB. Not only was the deployed platoon able to exercise its core and core-plus mission essential tasks as part of the Service's first HIMARS live fire exercise on the Korean Peninsula, but it did so within a total force, joint force, and combined force construct. While this was exceptionally beneficial to 2d Bn, more importantly, the exercise has established a baseline for future HIMARS operations under III MEF, Service posturing initiatives in the Pacific, and a sustainable outside CONUS deployment construct to be sourced by MARFORRES. 2d Bn, as supported by MARFORRES, remains prepared to deploy to fulfill gaining force commander operational requirements while safeguarding Service interests.

>>Author's Note: 2d Battalion extends its appreciation to the III MEF Forces Fires Coordination Center and to 14th Marine Regiment for its exhaustive efforts in supporting 2d Battalion's participation in the III MEF exercise series. The Battalion looks forward to maturing its support of the MEF's requirements under the Regiment's Force Artillery Headquarters.

Senior Ranks, Ethical Problems

Unintentionally eroding cultural and organizational barriers to abuses of authority

by Maj Mark Grissom, USMC(Ret)

"Divided, or rather multiplied, authorities are the foundation of good government."

"Men cannot be made good by the state, but they can easily be made bad."

–Lord Acton[1]

Lord Acton. *(Portrait by Franz Scraphe von Lenbach, circa 1879, National Portrait Gallery, London.)*

The apparent decline in ethical behavior—especially in our senior ranks—is a cause of great concern in the United States military in general, as well as in the Marine Corps. The Western military tradition, especially in the United States, has mitigated its military institution's potential for abuses of authority relative to other less traditionally liberal, more totalitarian societies. A healthy mistrust of authority which "only a tradition of personal liberty creates"[2] and the respect for the rule of law, based on the Constitution's rule over government officials founded upon Judeo-Christian morality, favored the advancement of individuals in the officer and SNCO ranks less drawn to power for its own sake. They were less willing to plan and execute policy in a centralized and unitary manner, less likely to feel they were above the law and more entitled than their subordinates, and less apt to feel unrestrained from personal and professional indiscretions. This culturally non-Unitarian, decidedly decentralized outlook when it came to authority crosses over to the military manifest in the concept of decentralized command and control, made possible by adherence to the principles of authority and responsibility, and the traditional meaning of unity of command (as opposed

>Maj Grissom is a former communications officer. He is a veteran of Operations Desert Shield/Desert Storm and Enduring Freedom.

We repeat authority. *(Photo by SSgt John Jackson.)*

to the current joint definition).[3] These principles provide barriers to abuses of authority by supporting and protecting cohesion-building authority at all levels of command, where subordinate authority provides a counterbalance to superior authority. In *Carnage and Culture: Landmark Battles in the Rise to Western Power*, Victor Davis Hanson attributes the Western/American lethality in battle to the characteristics of the greater society which brought the culture of individualism into the military at all ranks.[4] This Judeo-Christian individualism, which brings an unknown level of lethality to the battlefield, respects authority based in the rule of law, but maintains a great deal of healthy suspicion against arbitrary authority, inoculating a resistance to hubris in all ranks.

Manifest in these two basic and vital principles they serve as a bulwark to abuses of power. Unfortunately, over the past 20 years or so, there has been an increasing trend, a subtle, almost irresistible, impulse toward centralized and unitary command and control. It is characterized by a trend in methods of administration that are replacing our decentralized heritage, subtly eroding a significant feature of our ethical foundations as well as the basis for our exceptional warfighting proficiency. Structures of authority have been increasingly conceived in unitary administrative terms. Under the pressure for quick, decisive, and direct action to right every wrong, structures of authority have been envisioned and designed to deal with a vast pool of isolated and administratively discrete individuals. Units of administration have become individual Marines where the Service headquarters focuses on the abstract unitary administrative mass. HQMC, committed to unitary administrative methods characterized by a dual chain of command executes individual administrative control mandates that act remotely, impersonally, and directly on the individual, bypassing the traditional one chain of command. A quick and decisive leader today is one who will not let the operational chain of command slow, or in any way impede, direct action once a need for decisive action is perceived. In this environment, authority and responsibility, the stated foundation of all our command and control, and traditional unity of command not only have little meaning or impact, they are increasingly antithetical to the ever popular unitary approach at the expense of cohesion and humility before the laws and commitment to ethical norms. Advancement means that every Marine must be willing to submit to increasingly remote and impersonal Service headquarters exercise of direct authority over their careers, and when the opportunity comes, willing to exercise equal or greater authority over individual Marines themselves. History reminds us that individuals willing to submit to this type of control and loss of authority in their own sphere are less likely to challenge abusive authority, and as they advance through the system, can and often do, get carried away themselves. They are more apt to feel entitled and exempt, omniscient in their own sphere of influence and control with fewer subordinates and peers to check this attitude.

A.J. Nock summated the potential stage of our predicament in a prescient analogous observation on out-of-control bureaucracy when "The pressure of centralization has tended powerfully to convert every official and every political aspirant in the smaller units into a venal and complaisant agent of the federal bureaucracy," and where "Their eyes and thoughts were constantly fixed on Rome, because recognition and preferment lay that way …"[5] Nock continues in amazement, referencing Hebert Spenser in describing what he calls our continued faith in centralization despite its failures:

> Yet, he remarks, it is just this monstrously extravagant hope that society is continually indulging; and indulging in the face of daily evidence that it is illusory. He points to the anomaly which we have all noticed as so regularly presented by newspapers. Take up one, says Spencer, and you will probably find a leading editorial "exposing" the corruption, negligence or mismanagement of some State department. Cast your eye down the next column, and it is not unlikely that you will read proposals for an extension of State supervision . . . Thus while every day chronicles a failure, there every day reappears the belief that it needs but an Act of Parliament and a staff of officers to effect any end desired. Nowhere is the perennial faith of mankind better seen.[6]

Like Nock stresses above, the proverbial vicious cycle is created. This dark side of human nature is unintentionally supported by the subtle and insidious erosion of an important barrier to unethical

Admin methods impact the character and proficiency of the individual and organization. *(Photo by Sgt Gabriela Garcia.)*

behavior; thus, the institution becomes increasingly inimical to the virtues it professes. Any attempts at corrective action without a thorough survey and analysis of our current administrative methods and the distribution of authority among the ranks in the light of our basic command and control principles will likely end up fruitless at best, or at worst continuing down the same path.

The importance of adherence to these basic principles cannot be overstated in their impact upon maintaining a proper distribution of authority up and down only one chain of command, thus maintaining a positive impact of the institution on the character and behavior of individual and unit. A casual reading of the performance evaluation system manual will make the current paradox conspicuously obvious. Our system of HQMC promotion mandates that bypassing the chain of command acting directly on the individual Marine as part of our advancement system is openly and clearly at odds with authority and responsibility and traditional unity of command. It is a system that has a tendency to isolate the individual from his immediate peers, subordinates, and superiors, weakening the cohesive bonds that both endear and make individuals accountable to one another in every aspect of their daily lives.

We must rediscover what centralized policy and decentralized execution means, rediscovering that in garrison administrative methods impact both character and proficiency, that "everything is training" in the pursuit of combat readiness, to quote my Vietnam era, Silver Star-awarded senior drill instructor. Forgotten is the understanding that loyalty, commitment, and the sense of belonging to a larger institution is nurtured and developed locally—it cannot be remotely administered by HQMC. We must ask ourselves why we have lost sight of this somewhat stubborn aspect of human nature. Why HQMC has transitioned from an entity that was seldom felt, except for periodic administrative and maintenance policy compliance inspections, to an omnipresent entity increasingly involved in the daily lives and minds of every Marine in the pursuit of promotion mandate compliance for career's sake.

We are gradually forgetting the importance of the impact of 250 years of American governance on our military institutions. Methods of governance that were humble as they were simple, but producing profoundly effective patterns of behavior based in the rule of law which one tampers with at the risk of destroying the edifice. Our command and control was influenced by and built on a decentralized power/authority structure that was in no way perfect, but unique to the political world which was created in the late 18th and early 19th century and remains, even to this day, very special and like no other in the history of warfare. Unfortunately, it is common these days for folks to feel uncomfortable notions of this uniqueness under the popular expression, "American Exceptionalism." Only with serious study and reflection do political scientists and military historians like Hanson come to learn it a relative truism; America and its military institutions are different, with the Marine Corps, in my opinion, being the epitome of this difference at the Service level. Only someone who does not know and appreciate American history, from honest comparative observation, our failures as well as our victories, could think that this uniqueness is simply a product of advanced technology and/or techniques. But even more ominously, think that totalitarian administration is anything new, or any less destructive to our ethical foundations, than its past manifestations or current forms.

Notes

1. This quote can be found at: http://www.acton.org.

2. F.A. Hayek, *The Road to Serfdom*, (New York, Routledge Classics, 2006), 152.

3. Headquarters Marine Corps, *Marine Corps Doctrinal Publication 1-0, Marine Corps Operations*, (Washington, DC, September 2001), Appendix B-4.

4. Victor Davis Hanson, *Carnage and Culture: Landmark Battles in the Rise of Western Power*, (New York, Doubleday, 2001).

5. Albert J. Nock, *Our Enemy, The State*, Mises.org, 1935, page 9.

6. Ibid, page 27.

SECDEF Integration Memo 2014

Although this is written in the standard format for a Department of Defense Memorandum, it is not to be read or understood as an actual Memorandum. It was authored by LtCol Adam Strickland.

SECRETARY OF DEFENSE
1000 DEFENSE PENTAGON
WASHINGTON, DC 20301-1000

APRIL 1, 2014

MEMORANDUM FOR SECRETARY OF THE NAVY
CHAIRMAN OF THE JOINT CHIEFS OF STAFF
UNDER SECRETARY OF DEFENSE FOR POLICY
UNDER SECRETARY OF DEFENSE FOR PERSONNEL AND READINESS
CHIEF OF NAVAL OPERATIONS
COMMANDANT OF THE MARINE CORPS
GENERAL COUNSEL OF THE DEPARTMENT OF DEFENSE

SUBJECT: INTEGRATION OF THE NAVAL SERVICES

As leaders of the Department of Defense, we share a commitment to provide the most capable and ready forces necessary to fight and win our Nation's wars, satisfy goals and objectives identified in the National Security Strategy, and do so in the most fiscally responsible manner possible. The Navy-Marine Corps Team remains the most relevant expeditionary and warfighting force on the globe. It earned this distinction through years of service in war and peace, demonstrating a culture of adaptation through aggressive experimentation and innovation necessary to overcome current and future threats. As we look toward an uncertain future and the potential for low probability high impact events, this culture will ensure that the Navy-Marine Corps Team remains most ready when the Nation is least ready, and at the lowest cost and highest return for the Nation.

Our Nation needs an expeditionary force and forward presence to secure our enduring vital national interests; however, it can no longer afford excessive redundancy within the Operating Forces, and the staggering costs associated with domestic shipbuilding. The Marine Corps' rightful place within the total force has long moved beyond question; however, over the previous 25 years, it has increasingly been tasked with missions that have forced it to adopt a posture akin to a second land component. This was not the fault or the desire of the institution, but the leaders of the Marine Corps did as their Nation asked without question—and did it exceedingly well in the deserts of Saudi Arabia; Kuwait; Somalia; Anbar Province, Iraq; and most recently in Helmand Province, Afghanistan. Fortunately, as we redeploy from a decade of persistent combat operations, the Department has an opportunity to reset the Marine Corps as a maritime force to support naval campaigns in a manner consistent with Federal code, the national security strategy, combatant command requirements, national military strategy, the expressed wishes of Marine senior leadership, and—most importantly—the traditional Marine identity.

Therefore, after discussions with the President, the Secretary of the Navy, and Chairman of the Joint Chiefs of Staff, the President has directed me via National Security Presidential Directive to initiate the immediate formal integration of the Navy and Marine Corps into one maritime force, returning the Marine Corps to its primary role as Fleet Marine Forces assigned to the Navy Fleets. With this guidance, I have asked the Secretary of the Navy to develop an integration campaign plan no

later than 30 September 2014 that will fulfill the President's directive no later than 30 September 2018. In furtherance of this goal, I have directed the Secretary of the Navy to initiate the following:

- Immediate integration and consolidation of the Chief of Naval Operations' N3/N5 [operations/plans] staffs with the Commandant's Plans, Policies, and Operations staff.
- Immediate integration and consolidation of the offices of the Directors of the Navy and Marine Corps Staffs.
- Immediate incorporation of Marine Special Operations forces into Naval Special Warfare Command.
- Immediate integration and consolidation of Naval Education and Training Command and Marine Training and Education Command.

Per the President's direction, and wishes of the combatant commanders, implementation of this campaign plan should result in no less than the following:

- A revitalized amphibious capability and force without peer globally.
- A more ready and lethal naval strike capability.
- A fully integrated expeditionary naval force prepared to dominate the brown, green, and blue water zones as required.
- Development of naval doctrine that accounts for the newly integrated force.
- A Marine expeditionary brigade assigned per fleet and per geographic combatant command capable of disaggregating into Marine expeditionary units.
- Fleet Marine Forces organized, trained, and equipped as naval infantry, raiders, and commandos to support the prosecution of naval campaigns.
- The realignment of one fleet per geographic combatant command, and the reassignment of Marine forces from Marine Forces Pacific and Marines Forces Command.
- A single integrated naval aviation force.
- Marine officers educated and trained in naval operations prepared for service aboard ship as surface warfare officers in addition to traditional Marine duties while embarked.
- A right-sized naval force that accomplishes assigned missions at the lowest cost for the nation.

In addition, I am directing the immediate implementation of the following measures to promote full integration at the earliest date.

- The inclusion of Marine forces on every deploying Navy surface ship by 30 September 2014.
- The absorption of the Marine force components by the Navy force component at each combatant command no later than 30 September 2014.
- The integration of all Chief of Naval Operations N-offices and staffs and Deputy Commandant Offices and staffs no later than 30 September 2014.
- The absorption of the Naval Expeditionary Combat Command into the Marine Corps no later than 30 September 2014.
- The utilization of Marine forces to secure all naval bases and stations by 30 September 2015.
- Divestiture of capabilities from the Marines necessary for the least likely most dangerous scenarios no later than 30 September 2015. (If current or programmed heavy-lift rotary wing assets or KC-130 assets cannot lift the asset, then it should be eliminated from the Marine inventory.)

Successful implementation of this integration will require significant support from our Congressional leaders and respective Armed Services Committees. In furtherance of this integration, I, along with the Secretary of the Navy, Chief of Naval Operations, and Commandant of the Marine Corps, will engage members of Congress to create a shared understanding of the process and desired outcome of this initiative. To reach our goal in a manner that retains the most ready expeditionary forces, we will ask Congress for the following:

- Legislations amending Public Law 416 (1952), thus allowing the dissolution of the existing Marine Corps standing Marine divisions and air wings, and co-equal status of the Commandant with the Joint Chiefs of Staff.
- Legislation formalizing the command relationship between the Chief of Naval Operations and Commandant of the Marine Corps, with the Commandant designated as a four-star subordinate and co-equal with the Vice Chief of Naval Operations.
- Legislation reassigning Marine Forces to the Navy Fleets to recreate the Fleet Marine Force.
- Legislation directing the maintenance of one Marine expeditionary brigade and one crisis response special purpose Marine Air Ground Task Force per geographic command.
- Legislation authorizing the consolidation of the Navy and Marine Corps Reserves, and all associated bases and stations.
- Legislation directing the consolidation of Marine Corps and Navy bases and stations.
- Increased funding for the creation of afloat forward staging bases (ships) and enabling high-speed connectors capabilities per geographic combatant command.
- Increased funding for an expanded ship and maritime craft building program necessary to enable expeditionary operations within the global littorals, to include craft that would facilitate the ability to assert dominance over the brown water area of any potential area of operations.
- Increased funding for a new hybrid combatant that is a mix of DDG, LCS, and LPD capabilities.
- Increased funding for an expanded Marine unmanned aerial systems capability to support maritime operations.

- Legislation permitting the Naval forces, specifically Marines, to modify future enlistments and officer contracts from an 8 year commitment of 4 years active and 4 year Reserve obligation to a 5 year active and 3 year Reserve obligation.

In addition to the measures identified above, I encourage continued aggressive experimentation and innovation within the naval Services, and encourage the development of the following capabilities:

- A more robust coastal defense force compromised of integrated Marine and Coast Guard units and capabilities, to include a robust Marine Corps small boat capability.
- A deployable Marine stabilization unit capability that could be maintained afloat, and inserted as necessary into a contingency scenario to assist with host nation/civil capacity assistance.
- The forward deployment of Marines aboard ally and partner-nation ships.
- The permanent stationing of Marine forces with black-bottom support vessels.
- The assumption of all security cooperation officer activities by the NAVFOR (Marines).
- Increased interaction and connectivity between the Marines and U.S. Agency for International Development and embassy staffs.
- A naval crisis response force within 6th Fleet specifically constructed for service with NATO.
- A personnel system based more on merit and less on longevity of service or time in grade.

Though the benefits of this formal integration are evident and congruent with the expressed Congressional testimony of Marine Commandants for the previous two decades, the Department's analysis has identified additional second-order consequences of benefit to the nation and economy:

- Increased demands for skilled laborers necessary to built the next generation of Navy vessels at shipyards in locations across the Nation to include but which are not limited to California, Washington, Louisiana, Mississippi, Virginia, Connecticut, and Maine.
- Increased demands for skilled laborers necessary to expand designated existing bases and stations across the country, and close and demilitarize other facilities so that they may be returned to the states for utilization as they deem appropriate.
- An infusion of thousands of highly educated, skilled, and disciplined men and women of the Armed Forces back into the civilian workforce.
- Billions in long-term savings from personnel cost reductions that can be reallocated by Congress to other national priorities.

For far too many years, we have allowed our amphibious and expeditionary capabilities to erode, and through our inactions have allowed the naval forces to evolve from a position of trial separation to formalized divorce. This divorce is no longer acceptable, and will end immediately. Our offensive naval capabilities should not be predicated on our ability to launch aircraft and missiles over the horizon; but rather should be based on our ability to project Marines wherever and whenever in our Nation's interest. The Marines are the tip of our naval spear; not ship-based missiles. The Marine Corps must be prepared to win our Nation's battles, and not organize, train, or equip to win our Nation's wars.

While many of these initiatives appear to come at the expense of codified Marine Corps authorities and Marine Corps senior leadership, they are intended to increase the capability and readiness of the Marine Corps, further solidify its place within the larger joint Service framework, and ensure that the Marine Corps remains the Nation's expeditionary force-in-readiness: our Nation's 9–1–1 Force. We are not seeking to neuter the Marine Corps; but rather, ensure that the Navy reintegrates the Marine Corps as a necessary part of the Nation's naval capability. We are not trying to recreate the past nor relive past glories epitomized by the successes of the Pacific Campaign in World War II or during Operation Chromite. However, we will recreate the most ready and capable naval force on the globe, prepared for any contingency, not just those plans or visions that support large programmatic expenses inconsistent with the Quadrennial Defense Review and consistent only with self-interest.

The Department needs to be a national leader in its administration and management of the Force and as stewards of the Nation's treasure. We must seek enhancements that will result in a more effective and more efficient force. The measures outlined above will not be sufficient to create the fully integrated Force we seek, and additional directives will inevitably flow from the Secretary of the Navy's integration campaign planning in the near future. These collective initiatives provide a roadmap for this Department and the Department of the Navy to re-establish our naval expeditionary forces.

cc:
Under Secretaries of Defense
Chief of Staff of the Army
Chief of Staff of the Air Force
Commanders of the Combatant Commands
Inspector General of the Department of Defense
Assistant Secretaries of Defense
Directors of Defense Agencies
Directors of the DoD Field Activities

USMC

Outside Our Lane

Bold and daring women do belong in all combat arms.

A Rebuttal to "Why Women Do Not Belong in the U.S. Infantry"

by LtCol Maria Pallotta

>LtCol Pallotta is a logistics officer with over 15 years of active duty service. She has deployed twice to Iraq and currently serves as a field historian with History Division at Quantico. She works in strategic communications at HQMC (Installations and Logistics), and is a doctoral student at George Mason University.

The *Marine Corps Gazette's* editorial decision not only to publish Capt Lauren Serrano's article, "Why Women Do Not Belong in the U.S. Infantry"[1] but additionally to award it first prize in the MajGen Harold W. Chase Prize essay contest is surprising and disappointing. Given their history of being thought leaders in a forum that challenges the status quo, this decision effectively moves the debate regarding women in the infantry backwards, harkening back to recent times with the same vernacular used to justify keeping homosexuals from serving openly, and even as far back as the 1940s, when many of these same points were used to justify continued racial segregation in the ranks. The article itself is based on outdated stereotypes, specious arguments, and poor logical reasoning, but what is more egregious is the *Gazette's* all-male editorial advisory panel deciding to reward such a piece. In so doing, the *Gazette* has successfully undermined the purpose of the Chase Prize itself, which is to "challenge conventional wisdom," "argue for a new and better way of doing business," and to embody MajGen Chase's belief that the Corps' strength stems from "its ability to accept change."[2] Rather than embracing this ethos, the article is full of tired arguments defending the status quo, and reinforcing outmoded conventional thinking while simultaneously ignoring the Commandant's measured, standards-based approach to researching the assignment of women as explained in the Marine Corps Force Integration Campaign Plan.[3]

Capt Serrano chooses to argue points that are independent of and separate from the salient issue that undergirds this debate—validated physical standards of the infantry and whether or not some women can meet them. Instead of focusing on abilities, she dwells on male infantry's biases on why women, regardless of skill, should not serve among them. Furthermore, the article is rife with inaccurate stereotypes regarding male sexual behavior, overgeneralizing all women as physically incapable of service in the infantry, and the ever-present paranoia surrounding the falsely feared and exaggerated "women's hygiene issues" in the field. The crux of Capt Serrano's argument seems to be that young first-term infantry Marines possess a special, unique need to remain sequestered from women in order to fight well; furthermore, they apparently have more uncontrollable testosterone levels than other MOSs as well as their senior infantry counterparts serving in the special forces and/or working alongside counterintelligence Marines.

Women have been piloting Marine aircraft in combat. *(Photo provided by Christine Westrich.)*

Additionally, the captain maintains that these young infantry Marines have as their default setting sexual assault against women, enough even to make their wives worry about their husbands working alongside women in combat. This insults the capabilities, professionalism, intellect, and discipline of our Marines. We are better than that.

The article additionally asserts that an infantry rifle squad performs at its best in the absence of women, myopically ignoring the reality of conflict along the full range of military operations. Assuming the continuation of irregular warfare as the engagement of choice for the growing insurgent movements throughout the arc of instability, only a fraction of future possible operations will be devoid of women. Women exist throughout the battlespace in counter-insurgencies (with the population as the center of gravity), and women Marines serve in increasingly essential roles in many MOSs critical to success in this more diplomatic, yet violent, conflict environment. Consider the mission critical necessity of Lioness teams in Iraq and female engagement teams in Afghanistan. Yet if Capt Serrano's arguments are held to be true, and women and their inevitable sexual assault "should be kept as far away from the infantry as possible,"[4] then how can a young infantryman possibly remain focused enough to achieve the mission in an irregular environment?

Since my days as a midshipman over 20 years ago, I have encountered this same attitude in various forms throughout my career. In the early 1990s, numerous articles and op-ed pieces guessed wrongly that the American public was not ready to see their daughters return home in body bags and that male leaders would pay too much attention to the women in their ranks to the tragic detriment of the mission. Some fellow midshipmen felt that women should not attend the Naval Academy or any Service academy. As the combat exclusion law was significantly pared down in January 1994 right before our Service assignment, many critics additionally opined that women would experience inherent difficulties with, and bring unnecessary problems to, combatant ships and combat aviation.

These misguided assumptions proved untrue, and the Nation's sea change regarding women's military capabilities has been swift. Yet society regularly changes substantially within anyone's full career span, and even I have evolved significantly on the issue. The military rightly reflects the Nation it represents, and it is necessarily a perennially young Service; therefore, it is right that it evolves with the zeitgeist and values of the younger generation who make up its bulk and who define its future.[5] Yet, Capt Serrano—and those for whom she writes—place a higher premium on the older generation's views while at the same time discounting the reality

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Women Marines served in female engagement teams. *(Photo by Cpl David Hernandez.)*

that the military is accountable to its civilian leaders.

Throughout my career, I have persistently contemplated this issue. I have served in a variety of billets, locations, and operations, all of which have informed my thinking. They include an early MEU assignment as the second woman ever in the unit, Inspector-Instructor command of 4th LAAD (low-altitude air defense), SOTG (special operations training group), a Congressional fellowship, instructor duty, and two tours to Iraq conducting convoys under hostile conditions in Al Anbar Province. Unlike previous TBS companies, mine set a precedent by permanently integrating women into the male squads instead of assigning an all-female platoon. Back then, TBS staff platoon commanders were all combat-arms men. Of course, I experienced friction at times, particularly at TBS and in those early MEU days. But as all the women I have ever served with, I serve for the exact same reasons men do—to meet the challenge of becoming a Marine, to compete to be the best, and to test myself in the toughest conditions possible, where the action is—all due to a strong desire to serve my country in a meaningful way in jobs for which I am qualified, not because men may or may not have welcomed me. We too serve for our brothers and sisters next to us, and at no time have I served to make a political statement or advance some mythic personal feminist agenda. We are Marines who serve honorably, not a social experiment, and my peer group of women have excelled in some of the first combat and other leadership billets open to women. When the opportunities presented themselves, we simply took them like any qualified Marine would. Marines, regardless of gender, are more alike than different. I am a Marine first and a woman second. I accept that there is some aspect of the presence of women in traditionally male jobs that existentially threatens many men's desire to be primal; the infantry is the last bastion of maleness that these men jealously guard from the presence of any woman. Yet, this sentiment has proven wrong in so many jobs and MOSs previously closed to women, in the civilian world as well as in the military.

. . . I serve for the exact same reason men do—to meet the challenge of becoming a Marine, to compete to be the best, and to test myself in the toughest conditions possible . . .

It is an unrealistic desire for men to want to serve in modern combat among other men exclusively; the future battlespace dictates otherwise. As important, it is an inherently American can-do ideal that a person with the ability and the desire to serve in the military in a way that contributes to mission accomplishment should be afforded the opportunity—regardless of gender, race, creed, religion, nationality, sexual orientation, etc. The younger generation of Marines appears to espouse these ideals in greater density than we older Marines do, and they represent our future. While a majority of women may not possess the ability or the desire to serve in the infantry, those who do should certainly be permitted to try right alongside the men. This does not make them selfish; this makes them American. This makes them Marines, full of the fire and élan that have always made Marines great, and I look forward to the inevitable day when these barriers no longer exist.

Notes

1. Capt Lauren F. Serrano, "Why Women Do Not Belong in the U.S. Infantry," *Marine Corps Gazette*, September 2014, pp. 36–40.

2. MajGen Harold W. Chase Prize Essay Contest, accessed at https://www.mca-marines.org/gazette.

3. Gen James F. Amos, "Marine Corps Force Integration," *Marine Corps Gazette*, August 2014, pp. 10–15.

4. Serrano.

5. For a more in-depth treatment of the Millennial generation, see Majs Chris and Jeannette Haynie, "Marines or Marines*?," *Proceedings* (Annapolis, MD: U.S. Naval Institute), November 2012.

>Editor's Note: LtCol Pallotta is now a member of the editorial advisory panel.

MAGTF-SOF Integration

Realizing the natural synergy

by Maj Robert S. Bunn

With the drawdown of forces from Afghanistan, the focus for the Marine Corps, along with a significant portion of the Joint force, has transitioned to crisis response. With this renewed emphasis on a traditional Marine Corps role comes a need to investigate ways to improve the timeliness and effectiveness of a response. While the development of the special purpose MAGTF–crisis response (SPMAGTF–CR) is a significant step in this direction, the Marine Corps should also consider ways to leverage relationships with other forces to improve capabilities. The purpose of this article, therefore, is to address how closer integration with special operations forces (SOF) can improve the effectiveness of deployed MAGTFs and how both the Marine Corps and U.S. Special Operations Command (USSOCOM) might do better in MAGTF-SOF integration with the overall end state of a synergistic relationship that accomplishes Joint force objectives in future missions.

>Maj Bunn is currently the Plans Officer, U.S. Marine Corps Special Operations Command (MARSOC).

The Global SOF Network

Much like the Marines in the general purpose forces (GPF), SOF are currently engaged throughout the world in both combat and preparatory activities that range from training partner-nation forces to collecting valuable intelligence in potential hot spots. The exploits of SOF in direct action, counterinsurgency, and counterterrorism in Iraq and Afghanistan are well-known, but many are not aware that SOF are active around the world primarily in a partnership capability and capacity building role in missions including Foreign Internal Defense and security force assistance activities and other, low visibility activities. These ongoing actions give SOF tremendous access to partner nations and information of much value to the larger Joint force, especially in cases of crisis.

To better organize these efforts and coordinate actions within USSOCOM and international SOF, USSOCOM has developed a concept known as the global SOF network. The Global Services Network (GSN) seeks to interconnect SOF, the Services, interagency, allies, and partner nations to rapidly and persistently address regional contingencies and threats to stability.[1] This effort will be implemented through a formal campaign plan, approved by the Joint Staff and Secretary of Defense known as the Global Campaign Plan–Special Operations (GCP-SO).

Coupled with these ongoing global efforts and the Marine Corps' stated position as a crisis responder, it stands to reason that MAGTFs should have relevant access to SOF-produced information prior to a crisis. Furthermore, coordinating actions should be a priority for any and all response forces to ensure unity of action for the achievement of Joint force objectives. In an effort to begin linking MAGTFs to the GSN, USSOCOM has developed the ARG/MEU Special Operations Forces Liaison Element (SOFLE).

ARG/MEU SOFLE

In no small part due to the command relationships of theater SOF and Service components to global combatant commands (GCCs), many Marines have misconceived notions on how SOF work within the larger Joint force. Because of this, a review of command relationships is in order. The FY2013 Forces for Unified Commands Memorandum, gave COCOM (combatant command) authority to the commander (CDR) of USSOCOM in order to globally coordinate SOF actions.[2] CDR USSOCOM subsequently delegates operational control (OPCON) of assigned SOF to the GCCs, who further delegate OPCON to the theater special operations commands (TSOC).

On the other hand, deployed ARG/MEUs are normally OPCON to the Navy forces for the GCC in which they are operating. This means that during normal operations, the closest common commander deployed SOF and Marines operating in the same area have is the GCC. Obviously, in an effort to integrate the Joint force at the lowest level possible, something must be done to address the issues associated with having the GCC as the lowest common commander. This is where the SOFLE steps in.

The ARG/MEU SOFLE concept originated from the USMC-SOCOM Wargame in April 2013. The original intent of the wargame was to explore options by which USSOCOM would provide SOF capabilities to a maritime expeditionary force to include ways in which ARG/MEUs and SOF could leverage each other by combining their capabilities, strengths, and advantages to achieve greater synergy in servicing GCC objectives. After investigating multiple options for SOF support to

the ARG/MEU, the Commandant and CDR USSOCOM agreed on the ARG/MEU SOFLE concept, which places a six-person SOF liaison element on the LHD/LHA of an ARG with a C4I (command, control, communications, computers, and intelligence) system capable of linking the ARG/MEU with GSN.

The SOFLE will be a Joint organization sourced from across USSOCOM. This means not all of its members will be MARSOC Marines, although the first two officers in charge during the current proof of concept iterations occurring with 11th and 24th MEUs will be MARSOC Marine lieutenant colonels. The ARG/MEU SOFLEs become tactical control to the MEU command element 180 days prior to deployment and participate in key workup events. During deployment, the SOFLEs are OPCON to the applicable TSOC and tactical control to the MEU command element and also facilitate liaison exchange between the MEU command element and TSOC.

While the command relationships and placement of personnel aboard the LHD/LHA facilitate coordination on the human level, the shipboard carry-on super high frequency system is the technological link between the SOFLE and the greater global SOF network and allows the SOFLE to be a self-contained and additive entity to the ARG/MEU. The system is installed on the LHD/LHA during workups and provides two to four megabytes of bandwidth over DISA X-Band with no airtime costs to the ship. These capabilities significantly enhance the ARG/MEU's ability to communicate with the TSOC and SOF forces ashore, greatly enhancing MAGTF-SOF integration.

Current Efforts at Work

The ARG/MEU SOFLE constitutes the main effort of MAGTF-SOF integration efforts underway. For MEU workups, the SOFLE joins the command element at D–180 and participates in realistic urban training (RUT) and the certification exercise (CERTEX). For the development of SOF integration in these exercises, the SOFLE officer in charge will advise the MEU commander on realistic scenarios and assist in generating SOF support.

The Marine Corps needs to leverage relationships with other forces. *(Photo by Capt Barry Morris.)*

RUT and CERTEX are critical avenues for developing understanding of SOF capabilities, limitations, and likely support requirements. It is here that the MEU should be introduced to how SOF can support the MEU and how the MEU might be used by the GCC or national leadership in support of SOF. Scenarios should replicate actual command relationships that would be seen while forward deployed and introduce some of the inconveniences that might be encountered when the ARG/MEU supports SOF. Clearing space for the arrival and temporary basing of SOF, limited dissemination of mission information, and unusual ship routines should all be considered valid and important training during these workup periods.

With that said, integration with SOF will normally *enhance* MAGTF operations. Connectivity to the global SOF network should improve the intelligence picture during training evolutions and SOF actions prior to MAGTF operations should degrade enemy capabilities. It should be noted, however, that much like a request for fires or air support, sometimes a MEU's request may not be supportable. Prudent training design would account for this occurrence somewhere during RUT or CERTEX.

As part of MEU workups, the ARG/MEU SOFLE will also be a part of large-scale exercises such as Bold Alligator (BA). BA 2014 saw the 24th MEU bring the SOFLE into a larger MEB construct. As of this writing, due to the physical limitations of the ARG/MEU SOFLE's systems, the SOFLE will remain on the 24th MEU's LHD even with the arrival of another LHD that will host the MEB forward command element. Despite this arrangement, the SOFLE supported the MEB command element, with initial positive reviews.

Issues under Investigation

Improving MAGTF-SOF integration should not stop with the ARG/MEU SOFLE. Currently, MARSOC is investigating how SOF can best support larger MAGTFs such as a MEB. BA 2014 will help identify how best to improve the support to a MEB and solve issues surrounding the systems and command relationships when the MEB subsumes a MEU in a crisis area. Collaboration between MAGTF and SOCOM planners, to include those at MARSOC, will be critical to developing a viable solution to this issue.

Integration of the SPMAGTF–CR into ongoing SOF operations also needs improvement. Any standing SPMAGTF–CR should have linkages in place to tie into the global SOF

network in the time-constrained environments in which they will likely be employed. Further, there should be regular training opportunities to ensure Marines and SOF don't have to work out coordination from scratch during a crisis. SPMAGTF–CR support would benefit from small unit-focused experimentation with SOF that emphasize information flow between SOF on the ground and Marines en route along with the mechanics of coordination on the ground once Marines arrive in a crisis area.

Both SOF and the Marine Corps should continue to develop integration of each other's capabilities in the coming years. This begins with education, especially in regard to the global SOF network and standing command relationships. Much of the responsibility for education falls on the shoulders of USSOCOM to ensure Marines have relevant access to information when and where they need it, but Marines must also be prepared to work within the framework of likely command relationships and security classifications.

Beyond education, both USSOCOM and the Marine Corps should work together to develop modular C4I systems capable of communications between SOF and conventional force systems. Such systems should be capable of providing additive capability to naval systems with relatively easy transfer to other afloat platforms or ashore. These systems would improve upon the bandwidth of the shipboard carry-on super high frequency system along with mobility across naval platforms. Development and acquisition of such systems would greatly improve SOF support to the MAGTF.

To improve Marine Corps support to SOF, the Marine Corps should investigate ways to improve aviation support to special operations. Under time or resourcing constraints, special operations aviation may not be available for routine or lower priority SOF missions and forward deployed Marine aviation assets are a likely choice to fill the capacity gap. To ensure mission success, however, aircrew must have the skills and equipment necessary to properly execute mission in support of SOF. This requires training opportunities and may warrant an investigation into SOF support requirements in Training and Readiness Manual standards and aircrew qualifications for aviation units in a position to support SOF.

Above all else, enhancing integration between MAGTFs and SOF is a people-oriented endeavor. Relationships developed from the ARG/MEU SOFLE deployments should be continued and fostered well past returning to home port. Marines should also be encouraged to accept assignments within USSOCOM, whether to MARSOC or elsewhere. Currently, Marines providing specialist support to MARSOC in fires, intelligence, and logistics return to conventional Marine forces in 3 to 5 years. When they come back, leaders should ensure their knowledge is disseminated to the rest of their new unit and used to enhance operations.

With that said, neither SOF nor the Marine Corps should be satisfied with informal relationships. Concepts such as those proposed in *Expeditionary Force 21*[3] must be tested through experimentation. Command and support relationships should be rigorously exercised in venues such as Bold Alligator and the lessons learned from both codified in doctrine and other policies. This will take efforts at all levels from conceptual development to small unit training and execution and attention from both USSOCOM and Marine Corps leadership.

Conclusion

It is no surprise that as operations in Afghanistan draw to a close, the crisis response aspects of Marine Corps operations are taking on an increased level of importance. Given ongoing special operations in likely hot spots throughout the world, SOF and the Marine Corps are a natural pairing in confronting future crises. The time is now to ensure Marines have access to relevant information and can integrate into ongoing actions in time constrained crisis situations. Through concept development, training, and leadership from both USSOCOM and the Marine Corps, the potential synergy between SOF and the MAGTF can be realized and exploited in execution.

Training opportunities will ensure Marines and SOF don't have to begin coordination from scratch. *(Photo by LCpl Steven Fox.)*

Notes

1. ADM William H. McRaven, *SOCOM 2020: Forging the Tip of the Spear,* (MacDill Air Force Base, FL; Headquarters United States Special Operations Command, 2013), p. 5.

2. Leon F. Pannetta, *FY 2013 Forces for Unified Commands Memorandum*, (Washington, DC; Office of the Secretary of Defense, 2013), Tab B.

3. Gen James F. Amos, *Expeditionary Force 21*, (Washington, DC: Headquarters Marine Corps, March 2014), p. 45.

Professional Note

Lieutenant History Book and Range 410A

Base Plate McGurk Expounds . . .

A long day at the Advanced Course was finally over. The topic had been on leadership and the conversation had migrated to the relationship between SNCOs and officers—a young officer in particular. Like most of the seminars, the conversation continued well after the instructor left the class, and this day was no exception. Dusty, Tex, and I loitered in the conference room and continued to draw from each other on this topic. "Dusty" was a log Marine, and had earned his nickname from the amount of time he had spent in the Middle East. His cammies were faded and had the appearance of being covered in a light coating of dust. "Tex" was from the "Republic of …" He sported a Stetson and boots when he was on liberty from fixing aircraft in the wing. Between the 3 of us, we had about 50 years of experience in the Corps and plenty of stories to call upon. I had a new lieutenant story of personal experience that I was dying to share. And so I began.

"Back when I was a salty staff sergeant, I had the unenviable privilege of being assigned a brand-new lieutenant fresh out of Quantico. He was a little older than most, but no mustang. His enthusiasm was a sight to be seen. I rarely saw him content to just sit or accept things at face value—something I felt to be a mixed blessing. I mean, if you are going to have a lieutenant around, he ought to be involved and concerned about the platoon—as long as he lets the platoon sergeant do his job. He read a lot, too. Lots of books on military history and he was always trying to get me to read them. I actually did read a couple that he told me were especially useful, and they actually were (but I never admitted it).

"Anyhow, we were getting ready to ship out to Twentynine Palms for a big exercise. Back then, we called it the CAX, or Combined Arms Exercise, and had a three-week series of classes, ranges, and live fire exercises always culminating in a FINEX, or final exercise, that lasted about 4 or 5 days. One of the events at the platoon level was assaulting a fortified position at Range 410A. It was a challenging problem for a rifle platoon, only we didn't have a rifle platoon. We had an LAV platoon—4 LAV–25s with crews and 12 scouts. Twelve dismounts made this nearly a ridiculous problem. I never understood why the Coyotes (that's what we called the instructors out there) insisted that LAV platoons needed to do this, but it was part of the program. What made it really silly was the fact that we were not allowed to use the 25mm chain guns to suppress or let the scouts use a PRC–77 radio. 'Too dangerous' is what we were told.

"Well, this lieutenant was really amped up about doing well at 410A mainly because the captain was trying to whip the whole company into shape for CAX. So, Lieutenant History Book corners me in the company office all excited about an idea he has to crack the 410 nut.

"'The key to 410 is suppression and moving that suppression to support our scouts,' he starts out. I agreed with him and fingered my pack of Marlboros. He took the hint, so we went outside so I could get a smoke while he made his pitch. As I lit one up, I looked around to make sure it was just the two of us with nobody in earshot.

"'So, we drive up to the fortified position, maybe 100 to 200 meters out and start to suppress with our coax machine guns. The scouts dismount and bound to the end of the nearest trench line and enter it after dropping a frag to clear it out.' Still pretty standard stuff, so I nodded and dragged on my smoke. Then he got all excited and wide-eyed telling me how he read a bunch of stuff about trench fighting in World War I, and he found a great idea. I concealed my amusement and let him go on.

"'One of the scouts has a donut of WD–1 comm wire on his back with the

ends hooked into the 'hot loop' posts on the back of the vehicle. It pays out wire as he moves toward the trench line. He also has a TA–1 field phone connected to the other side, and he can talk to us directly to tell us when to shift fires as the scouts advance through the bunkers and trenches.'

"'What do you think?' The look on his face was like he had just cured cancer or something.

"I felt bad. This guy had spent a whole lot of time trying to figure out this problem—but his plan was, well, silly. I took one last drag before I had to burst his bubble.

"'Sir, that's a stupid idea.' He was shocked.

"'You don't think it will work?' he asked in disbelief.

"'Sir, can I make a recommendation?' I asked, without directly answering his question.

"'Sure,' he said sounding a little hurt.

"'You're right about the suppression. Dead on. But the control part is too complicated. It'll probably break down as soon as we drive up. We do like you said, but instead of comm wire and a field phone, we put a small flag, like our range flags, on a stick and jam it in the deuce gear of the second guy that goes in the trench. Once they get in the trench, we just offset from the flag about 300 mils or a spread hand. That way we keep it safe and simple. No phones. No wires. Hell, not even popup flares. Really simple.'

"I could tell he was listening, and that it was making sense to him. 'That's a great idea,' he said.

'I know,' I said, and smiled my devil-may-care grin, 'I'm glad you came up with it.' The grin was contagious.

"So, we assembled the platoon and went over the plan. We drilled it over and over. The captain got wind of it and watched our rehearsals. 'I want first platoon do use that flag thing, too!' he said. When we got to CAX and did 410A, we did okay. It was still a little ragged but expected with such a small dismount element in such a big defensive position, but at least we pulled it off. To this day, I still think the problem was silly, but that really doesn't matter. The important thing was how I was able to communicate to my lieutenant. We had mutual respect. He lacked experience, but was pretty damn smart, especially with the books. But he was really smart in the way that he would discuss things with me and seek out my opinions before hatching crazy ideas with the entire platoon present. I thought it was really important to take care of this guy because he was willing to listen and discuss. I've had my share of officers who "knew everything" and seen them fail because of that attitude. But this guy was different. Even if he was a little quirky, I knew we could work together. After that frank and private conversation, we developed a great relationship as platoon commander and platoon sergeant based on mutual respect and straight talk—the way things ought to be between an officer and a staff NCO."

Dusty and Tex smiled and agreed. Dusty chimed in, "Okay, so I've got one for you."

To be continued . . .

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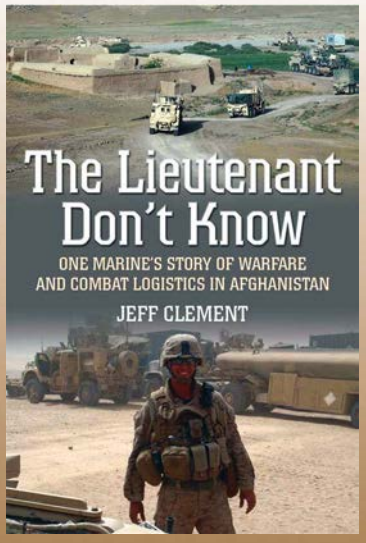
Reveling In Being A Combat POG

reviewed by Capt Thomas Short



THE LIEUTENANT DON'T KNOW: One Marine's Story of Warfare and Combat Logistics in Afghanistan. By Jeff Clement. Casemate Books, Havertown, PA, 2014, ISBN 9781612002484, 264 pp., $32.95
(Members $29.66)

According to legend, an anonymous admiral once said, "The Army and the Navy are run like traditional military services, the Air Force is run like a corporation, but the Marine Corps is a religion." As a Marine and true believer, Jeff Clement pays homage to Marine attributes and accomplishments. At the same time, he does not whitewash his own mistakes, failures, and less-than-glamorous moments.

Clement deployed to Helmand Province, Afghanistan, as a lieutenant and platoon commander with Combat Logistics Battalion 6 from January to August 2010. Following in the tracks of Nathaniel Fick's *One Bullet Away* (Mariner Books, 2006) and Donovan Campbell's *Joker One* (Random House, 2010), Clement's memoir carries the reader through Officer Candidates School and The Basic School at Quantico en route to his first deployment.

Clement's book differs from Fick's and Campbell's books in that he and his Marines are not combat arms Marines, but are simply logisticians. After returning home, Clement wondered if anyone would want to read the story of "a regular guy in a regular unit, not even a front-line combat unit." Then he had a conversation with his uncle, a World War II veteran, who questioned him about the everyday individual experiences of Marines in Helmand Province, the equipment, the weapons, and the tactics used by Marines and the Taliban. His uncle's genuine interest in the ordinary details of ordinary people in a war zone fueled Clement's desire to write the memoir as simply "a record of the things that the Marines of Combat Logistics Battalion 6 did." In keeping with this purpose, the book is full of detail, from a complete list of the names of all the Marines in his platoon to illustrations of the vehicles used on the convoys to a sketch of the three-quarter inch wrench he carried on his Kevlar vest.

>Capt Short is an active-duty judge advocate stationed at Camp Lejeune, NC. He currently serves as an administrative law officer and has previously served as defense counsel. In 2011 and 2012, he deployed with II MEF Forward to Helmand Province, Afghanistan.

While halted, the risk of indirect fire increased and dismounted Marines were subject to small arms fire and secondary IEDs.

In Afghanistan, Clement led supply convoys from Camp Leatherneck to outlying combat outposts throughout the province. Illustrating his stories with route maps, Clement singles out particular convoys for day-by-day descriptions. Selecting a route often meant out-guessing where the IED "emplacers" expected convoys to go. Sometimes, this meant off-roading where no NATO forces had gone before. Sometimes, it meant driving the straightest and most obvious direction between two points (called the "hey diddle diddle, run right up the middle" approach), hoping the Taliban did not expect them to be so bold. His convoys navigated unpaved roads, rough terrain, sucking mud, rollovers, indirect fire, small arms fire, IEDs, and the resulting wreckage and injuries. The line of vehicles often stretched out several miles and moved at a 4–5 MPH pace. Each vehicle maintained "track discipline," driving in the tracks of the lead vehicle to reduce the likelihood of hitting an IED. When an IED did disable a vehicle, the convoy halted until casualties were assessed and the vehicle was repaired or recovered. While halted, the risk of indirect fire increased and dismounted Marines were subject to small arms fire and

secondary IEDs. On some missions, the Marines were awake for over 60 straight hours.

Humility permeates the book, illustrated by the title which recurs as a theme throughout. Clement does not shy away from discussing his own failures and embarrassments as well as other officers' failures, vicious command climate surveys, and more than one relief for cause.

Nevertheless, some bitterness filters through. Clements believes his logisticians' sacrifices were not properly appreciated, especially by the combat arms Marines. He once had to organize a recovery mission to repair an infantry unit's vehicle only to discover that it simply needed a tire change, something the infantrymen could have done themselves. A special operations outpost routinely disregarded requirements to track and report its fuel supply until it was on empty and its poor fuel planning became his emergency convoy. Marines on outposts that his convoys had just supplied shouted catcalls as the logisticians rolled back to Camp Leatherneck on roads seeded with IEDs. Clement uses a telling quotation from Fick's *One Bullet Away* as a chapter epigraph. Fick's epigraph states "Your job is to be the hardest [expletive] in your platoon." In contrast, Clement's chapter, titled "The Lieutenant Don't Know," begins "The key to being successful as a lieutenant . . . is to ask questions." Clement appears to use the epigraph to contrast his own views on officership with that of the infantry officer.

On a lighter note, having been deployed to Afghanistan during the same time period, I am pleased to see certain pieces of history recorded for posterity. For example, the U.S. Air Force base in Manas, Kyrgyzstan (a jumping-off point for U.S. units entering and exiting Afghanistan) allowed alcohol for sailors, soldiers, and airmen, but not to Marines due to allegations of past belligerence. Clement also wryly captures in print that gem of word craft, "fobbit," a person who stays inside the wire in a forward operating base or FOB.

While Clement's memoir is a tribute to his fellow Marines, who are named and honored for their specific accomplishments that would otherwise be unknown, it is also an excellent eye-witness resource for anyone who wants to learn about or recall the daily details, tasks, equipment, and experiences of logisticians in Helmand Province in 2010.

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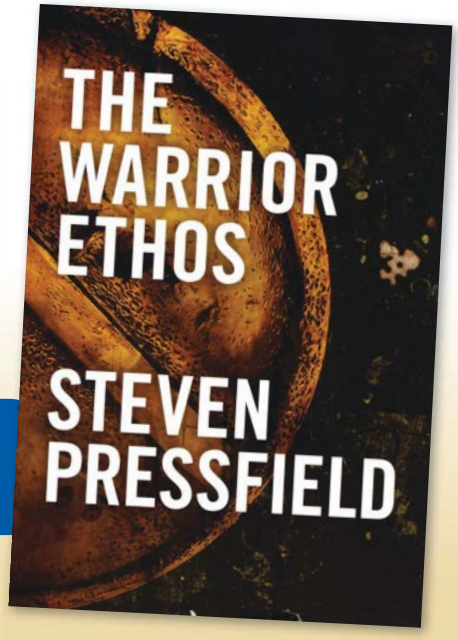

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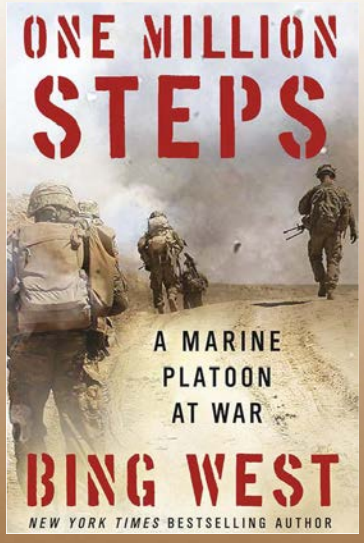
The Grunt's View

reviewed by LtCol William T. DeCamp III USMC(Ret)



ONE MILLION STEPS: A Marine Platoon at War. By Bing West. Random House, New York, 2014, ISBN 9781400068746, 266 pp. $27.00

(Member $24.30)

This book, the sixth and latest of Mr. West's books about the 9/11 wars is about the day-to-day battles with the Taliban fought by 3rd Platoon, Kilo Company, 3rd Battalion 5th Marine Regiment (3/5), during 2011 in a desolate and dangerous place called Sangin, in the Helmand Province of southern Afghanistan. The "One Million Steps" of the title is a mathematical estimate based on the number of Marines in a platoon and the number of steps each takes on patrol over a six-month period. The title is quite appropriate since any step any of the Marines take could be their last because of the insidious pervasive threat of Improvised Explosive Devices (IEDs)—anagrammatically, DIE; in fact, for each Marine who patrolled, the odds were 50/50 that he would die or be maimed for the rest of his life. Sure enough, West tells the story of how the law of averages played out for the platoon day after day as one hero after another loses life or limbs.

Despite 50 percent casualties, the Marines adapted to prehistoric conditions and figured out how to kill more Taliban than the Taliban killed Marines. Their individual and collective courage, small-unit leadership, and brotherly love are all the more remarkable because their Commander-in-Chief had already broadcast to the world that he was sending the Marines in for a finite period of time, and he had changed the mission from "defeat" the Taliban to "diminish" the Taliban. Admiral Mullen, the Chairman of the Joint Chiefs of Staff said, "We can't kill our way to victory." Yet the Marine generals and colonels, Col Paul Kennedy (Commanding Officer of 2d Marine Regiment) in particular, who had a greater understanding of conditions on the ground akin to the Gen Jim Mattis mantra, "Be polite, and have a plan for killing everyone you meet."

>LtCol DeCamp served as an active duty infantry officer from 1976 to 1999. His last assignment was as a military advisor to the U.S. Ambassador to the U.N.

The Marines were right. The only way to victory was by killing as many Taliban as humanly possible. Only after the country was secure would we be able to focus on hearts and minds and good governance. But the Marines' tactical and operational approach was contrary to the policy and strategy of our government, and could only work if it was applied universally throughout Afghanistan and without time limits. So the "victory" of the Marines of 3/5 was Pyrrhic, like winning battles but losing the war in Vietnam. Helmand Province was called "Marineistan" because the Marines demanded autonomy in the face of stupidity, and had to fight the best way they knew how—for keeps. Touch rugby may work in the ivory tower, but not on the ground in Sangin.

Ben Franklin said character is what you do in the dark. Knowledge of the futility of it all did not change the actions of the Marines who fought like hell, and killed and died for their buddies every day. Names like Sergeant Matt Abbate will go down in Marine Corps history for his grace under pressure and willingness to lead his men in mortal combat to save them from dying. "Greater love than this no man hath, that a man lay down his life for his friends." (John 15:13) The amazing aspect of West's reporting is the courage of so many individual men over and over and over again in Sangin. You would need a company of scribes to begin to capture the heroism of these Marines. Thank God for the physical and moral courage of Bing West to bring their physical and moral courage to light and to question once again the poor leadership that squanders the precious lives of our Marines. The overwhelming sadness of this book, even in the face of the Marines' glory, is the *why* of it all.

I highly recommend this book to our Commander-in-Chief, President Barack Obama, and his administration. And if they were ever to read it, I would ask them to ask themselves, "Why?"

>>Editor's Note: An excerpt from One Million Steps *was published in the October 2014 issue of the* Gazette. *The book is a riveting account of Marines in combat.*

'Takes pleasure in awarding the...'

Note: The award records in the Marine Corps' award processing system and improved awards processing system were used to populate this list, which reflects personal combat awards from the start of the global war on terrorism presented to Marines and sailors serving with Marine Corps forces only. This list may not reflect certain personal combat awards processed outside of either system and/or approved by another branch of Service. Any questions on the content of the list should be submitted in writing to the Personal Awards Section (MMMA–2) at Headquarters, U.S. Marine Corps, Manpower Management Division, MMMA–2, 3280 Russell Road, Quantico, VA 22134.

Bronze Star With Combat "V"

Adamski, Joseph J.	PO2	2d Mar Spec Ops Bn MarForSOC
Barnes, Justin E.	Sgt	2d Mar Spec Ops Bn MarForSOC

Bronze Star

Douglas, Christopher J.	Col	MEF Hqtrs Grp (Fwd)
Dyal, Justin W.	Maj	MarForSOC
Fleming, James D.	Maj	MEF Hqtrs Grp (Fwd)
Howard, Irvin N.	SgtMaj	1/9 2d MarDiv
Salvador, Travis J.	GySgt	2d Mar Spec Ops Bn MarForSOC
Wood, Lucas M.	Maj	2d Mar Spec Ops Bn MarForSOC

Navy and Marine Corps Commendation With Combat "V"

Vanhorn, Joshua	PO2	I MEF (Fwd)

Navy and Marine Corps Achievement With Combat "V"

Mason, Montana K.	PO3	MEF Hqtrs Grp
McCarthy, Johnathon D.	Sgt	CLB 7 CLR 1 1st MLG
Monterroza, Carlos A.	Cpl	3/7 1st MarDiv
Morgan, Bryce L.	Sgt	1st CEB 1st MarDiv
Sheldon, Benjamin A.	1stLt	1/9 2d MarDiv
Spitzer, Thomas Z.	Sgt	1/7 1st MarDiv
Sullivan, Matthew K.	1stLt	1/9 2d MarDiv
Tamboura, Mamadou	Cpl	1/9 2d MarDiv
Varela, Joshua M.	Cpl	3/7 1st MarDiv

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- **Feature Articles:** Normally 2,000 to 3,000 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 necessary, but a list of any source materials used is helpful.
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- **Book Reviews:** Prefer 300 to 750 words. Please DOUBLE SPACE. It is a good idea to check with the editor in advance to determine if a review is desired. Please be sure to include the book's author, publisher (including city), year of publication, number of pages, and cost of the book.

The best advice is to write the way you talk. Organize your thoughts. Cut out excess words. Short is better than long. Submissions may be sent via regular mail and should include one hard copy of the manuscript and a disk with the manuscript in Microsoft Word format. Photographs and illustrations must be in **TIFF, JPG, or EPS** format (**300dpi, 5x7 inches,** color preferred) and **must not be embedded in the article**. **Please attach photos and illustrations separately.** (You may indicate in the text of the article where the photos are to be placed.) Include the author's full name, mailing address, telephone number, and e-mail address. Mail to: *Marine Corps Gazette*, Box 1775, Quantico, VA 22134. Articles may also be submitted via e-mail to gazette@mca-marines.org. Please follow the same instructions for format, photographs, and contact information when submitting by e-mail. Any queries may be directed to the editorial staff by calling 800–336–0291, ext. 144.

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The Middle East

Which GPS are we using—the geo political savvy or the great policy shift?

by Hamid Lellou

On a cold night in February 1943, people from around the country gathered around the radio, with map of the world spread out on their table, waiting for President Franklin D. Roosevelt's weekly fireside chat.

> This war is a new kind of war, he stated. 'It is different from all other wars of the past, not only in its methods and weapons but also in its geography. That is the reason why I have asked you to take out and spread before you a map of the whole earth, and to follow with me the references which I shall make to the world-encircling battle lines of this war.'[1]

Today too, we begin a new war with the Islamic State (IS). In this "bootless war," it is even more important for us to understand the geography of this war, not only the physical geography but also the political and cultural geography of our allies and our enemies in the region.

>Mr. Lellou is a Middle East Northern Africa (MENA) region operational culture analyst.

Who's Pushing the Buttons?

The beheading of two U.S. journalists was seen as a provocation. I am suggesting, however, that it was a planned provocation with calculated results. The IS knew the U.S. would react but would not send ground troops to the Middle East again. They are getting what they wanted—a fight with their border countries. A fight they feel confident they can win. A fight that could, in their minds, credibly justify their expansion in the region and help them achieve their ultimate goal—an Islamic state that encompasses Iraq, Syria, Lebanon, Jordan, and Palestine.

We have won tactically. Our weak point is finding the strategic victory. *(Photo by SSgt Ezekiel Kitandwe.)*

Is Middle East Policy on Auto-Pilot?

One of the reasons for this confidence lies in widespread mistrust of U.S. policy in the Middle East and North Africa (MENA) region. Our refusal to strongly and decisively support, or to find some way to convey such support, disregarding and undermining emerging democracies has led many MENA populations to lose hope in the democratic process, making them vulnerable to the IS' propaganda. The U.S.-led war in Iraq based on false weapons of mass destruction evidence, the delayed backing of the Tunisian democratic process, the acceptance of the military coup in Egypt following democratic elections, the intervention in Libya, and the reluctance to intervene in Syria all express our shifting foreign policy and suggest that we do not have a clear understanding of the complex relationships that exist among important groups in any particular MENA country, such as the military, the ruling elite, religious organizations, the population, and the country's regional allies. The complexity lies in the fact that each country has a unique set of circumstances so there is no model to follow. The only navigational device that can steer us is historical, political, and cultural knowledge of the region.

The IS is a result of the "water balloon" phenomenon—squeeze one side and you inflate the other one. While our policies are national interest-driven, these interests are in jeopardy as soon as we become part of the problem. After two years of tireless but vain efforts to clean up Syria after Assad's regime, we naively turned to his most radical opponents to expedite the mission.[2]

The security vacuum in Syria helped criminal organizations mushroom in

Understanding Regional Dynamics

Countries in need of help to illiminate ISIS

Countries who can help	SYRIA				IRAQ				LEBANON				JORDON			
	$	&	#	*	$	&	#	*	$	&	#	*	$	&	#	*
UAE	N	N	N	Y	Y	N	N	N	Y	N	N	N	Y	N	Y	Y
Oman	N	N	N	N/A	Y	N	N	N/A	Y	N	N	N/A	Y	N	Y	N/A
Saudi Arabia	N	N	N	Y	Y	Y	N	N	Y	N	N	N	Y	Y	Y	Y
Iran	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	N	N	N
Egypt	Y	N	Y	Y	Y	N	Y	N	Y	N	Y	N	Y	N	N	Y
Bahrain	N	N	N	N	Y	N	N	Y	Y	N	N	Y	Y	N	Y	Y
Qatar	N	N	N	Y	Y	N	N	N	Y	N	N	N	Y	N	Y	Y
Turkey	N	Y	Y	Y	Y	Y	Y	N	Y	N	Y	N	Y	N	N	Y
Hezbollah	N	Y	Y	N	N	N	N	Y	Y	Y	N	Y	N	N	N	N

Symbols to show what they share

& Shared borders
$ Economic interests
# Political system
* Religious communality (Sunni, Shiite)
Y Yes
N No

Remarks

Sunni and Shia live all over the Middle East; however, they may be the majority in one country and minority in another. N/A Oman is a Muslim Ibadite community, but different from Sunni and Shia.

Christian and Druze are counted, but they are minorities in all countries.

Before the Syrian crisis, all Middle Eastern countries had economic and political ties with Syria.

Hezbollah is an armed organization that plays an important role in the Libanese and Syrian societies.

Table 1. Full commitment and combat motivation.

the region. The Baghdad administration's sectarian and clannish behavior further exacerbated the situation. Today, people in the Middle East believe that it was our policy with the complicity of Gulf monarchies that have led to detrimental second- and third-order effects (unwanted outcomes) that now includes the IS.

However, for the first time since the U.S. has been militarily involved in the region, all the local players, regardless of their background or agenda, including organized governments, civil societies, military factions, and perhaps even al-Qaeda, seem to agree on the elimination of the IS and the military role that the U.S. should carry on.[3] But do not be misled; this consensus exists only because each element believes: 1) that their interests are at risk, and 2) that the U.S.' initial intervention created this situation and so is obligated to clean up the mess. Any hope of creating new alliances with old enemies should be dismissed; as soon as the mission is accomplished, each of these entities will return to business as usual.

Recalculating–The Enemy of My Enemy Is My Friend

Experts in Washington, DC; London; and Paris are advocating for intense and surgical strikes. However, unlike the Taliban regime in Afghanistan, the IS is a well-equipped and multinational "government."[4] It also knows that in the worst case scenario, the U.S. and its western allies will bomb the areas they control with no boots on the ground.

The IS has become a common enemy to all the ruling regimes in the region. However, due to numerous conflicts of interest including borders, religious/sect differences, economic interests, and overall distrust of each other, it is difficult to determine if defeating the IS is their top priority and if they can agree on whom to support in this effort. Table 1 identifies some of the conflicts of interests that exist between the Arab nations with whom we are relying on for military, financial, and humanitarian assistance. For example, Saudi Arabia continues to interfere in Yemeni domestic matters, intervenes militarily to save the minority Al-Khalifa regime in Bahrain, supports the Marshal el-Sisi adventure in Egypt, and finances some fighting groups in Syria. Likewise,

Qatar supports other groups in Syria and tries to counter any Saudi initiative. Meanwhile, Egypt and the United Arab Emirates have recently bombed targeted fighter groups in Libya[5] and the list continues on and on. As of yet, not one of them has acted against the IS. If we are still counting on operational ground support from friendly fighting groups inside Syria, they are all busy struggling to keep their gain. As of 9 September 2014, the Syrian free fighter leader has been assassinated by either one of the other opposing groups or the IS.[6]

Theoretically, we all learn from history and previous mistakes; thus, it is extremely risky to place our bets on the success of a joint Arab military ground force, which has either no history or bad history. Since gaining their independence from the French and British occupations in the early 1950s and 1960s, Arab nation states have never been successful in their military adventures, except maybe Egypt (Suez Canal, 1956). Indeed, Arab coalitions failed to defeat Israel in 1948, 1967, and 1973. For eight years, Saddam Hussein's military struggled to resist Iran, even with U.S. and the Gulf States' financial support. Their best records are in putting down unarmed popular riots and in military coups within the same country. Other weaknesses include:

- No practical conventional or irregular battlespace experience except as U.N. peacekeeping forces or U.S. allies in the rear battlespace support (except, perhaps, Iraqi soldiers in Iraq).
- Their political and military doctrines do not provide a decisive orientation toward fighting outside their borders.
- Indecision on which country will lead the joint military venture.
- No JTF (joint task force).

A final concern that must be considered is the will to fight among the various Arab militaries. When asked about the intelligence community's success in gathering "anticipatory intelligence" on ISIL (Islamic State of Iraq and the Levant) James Clapper, Director of National Intelligence, commented, "what we didn't do was predict the will to fight that's always a problem…we underestimated [ISIL] and overestimated the capability of the Iraqi army…it boils down to predicting the will to fight, which is an imponderable."[7] I disagree with the observation that the IS fighters' will to fight is imponderable. With the knowledge and experience of al-Qaeda's commitment and determination to fight, the IS' fighters could only be more committed because of the fact that the IS detached itself from the former because it considered them too soft to carry on the long fight. In addition, most of its leadership is composed of young men living in the West who already gave up materialistic privileges they were enjoying in the West. U.S. Marine trainers can tell us a lot about Middle Eastern military capabilities and skills since they have been training them for the last decade, particularly in Iraq, Jordan, Yemen, UAE, and Egypt.[8] However, I wonder about the commitment of soldiers from these potentially allied countries and how strongly they believe in the fight against ISIL. Belief carries the fight farther than training and force. Recent IS successes in Iraq and Syria have created a great momentum among their fighters combined with their absolute commitment to fight to death.

Conclusion

History is repeating itself. However, this time we don't have a map that we can spread out on the table to help us navigate the conflicts in the region. The cultural, political, and historical geography of the Middle East is too complex to be represented in a two dimensional map. For guidance, we must look to the collective knowledge of both our operational culture specialists and our military personnel who have been actively involved in the region for the last decade. We must fight the IS not with the disjointed brawn of our Middle East allies, but with wit. Just as houses are made of stones, so armies are made of soldiers. But a pile of stones is not a house and a collection of soldiers is not necessarily an army.[9] Leading from behind is not a failure or sign of weakness. The development community refers to it as finding local solutions for local problems. In the shaping and coming phases of this war, we must empower our Middle East allies not with weapons but with confidence in our support in their emerging democracies, in belief that we are serious about supporting good governance, economic reform, fair share of resources, and education on the culture of democracy. If not, we once again run the risk of winning tactically but losing strategically.

Notes

1. Franklin D. Roosevelt, speech February 1943 accessed at http://www.presidency.ucsb.edu.

2. Raialyoum, accessed at http://www.raialyoum.com.

3. Cable News Network, "Meet the Terrorists Who Scare Al-Qaeda," accessed at https://www.youtube.com.

4. Robin Young and Jeremy Hobson, "Islamic State Structured Like A Government," *90.9 WBUR Boston's NPR News Station*, (Boston: Trustees of Boston University, 9 September 2014), accessed at http://hereandnow.wbur.org/

5. Staff, "United Arab Emirates Bombing Raids Libyan Militia," *The Guardian*, (London: Guardian Media Group, August 2014) accessed at http://www.theguardian.com.

6. Raialyoum, accessed at http://www.raialyoum.com.

7. David Ignatius, "James Clapper: Underestimating the Enemy's 'Will to Fight,'" *The Washington Post*, (Washington, DC: The Washington Post Company, 10 September 2014).

8. Dov S. Zakheim, "The Best Strategy to Handle ISIS Is Good Old Containment," *The National Interest*, (Washington, DC: Center for the National Interest, 24 September 2014), accessed at http://nationalinterest.org.

9. Jules Poincaré, rephrased quote, accessed at http://www.quotationspage.com.

>Editor's Note : A version of this article has been published on http://yourmiddleeast.com. It is reprinted here courtesy of yourmiddleast.com.

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