MARINE CORPS
Gazette
Professional Journal of U.S. Marines

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Digital Edition

A publication of the Marine Corps Association & Foundation

Welcome to the digital edition of the *Marine Corps Gazette*

Welcome to the October edition where we highlight the Logistics Combat Element. We hope you find these and the other articles informative and interesting. Wade in with your views at the end of articles or by email to gazette@mca-marines.org.

Semper Fi.

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

October 2015
Volume 99 Number 10

MARINE CORPS Gazette
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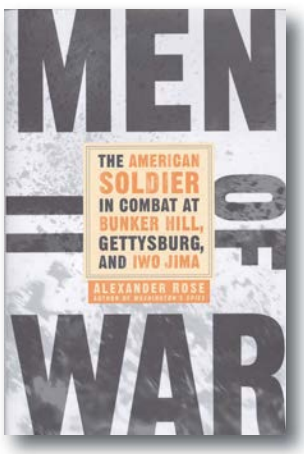
DE Cover Article
Rail is an effective mode of transportation. *(Photo by Cindy McIntyre.)*

DEPARTMENTS



IDEAS AND ISSUES

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DIGITAL EDITION EXCLUSIVE

Available at http://www.mca-marines.org/gazette/marine-corps-gazette-current-issue

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GEN ROBERT E. HOGABOOM LEADERSHIP WRITING CONTEST

Gen Robert E. Hogaboom.

The *Marine Corps Gazette* is proud to announce the commencement of its annual Gen Robert E. Hogaboom Leadership Writing Contest. The contest honors the essay that is the most original in its approach to the various aspects of leadership. Authors should not simply reiterate the 11 Principles of Leadership or the 14 Leadership Traits of an NCO addressed in the *Guidebook for Marines.* Authors must be willing to take an honest, realistic look at what leadership, either positive or negative, means to them and then articulate ways and methods of being an effective leader of Marines.

Background

The contest is named for Gen Robert E. Hogaboom, USMC(Ret), who served the Corps for 34 years. Upon graduating from the Naval Academy in 1925, Gen Hogaboom saw service in Cuba, Nicaragua, and China. Following action in a number of key Pacific battles in World War II, he later served first as assistant division commander, then division commander, 1st Marine Division, in Korea in 1954–55. Gen Hogaboom retired in 1959 as a lieutenant general while serving as the Chief of Staff, Headquarters, U.S. Marine Corps, and was subsequently advanced to the rank of general.

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

Instructions

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

E-mail entries to: gazette@mca-marines.org

DEADLINE: 31 January

Mail entries to: *Marine Corps Gazette*
Hogaboom Writing Contest
Box 1775
Quantico, VA 22134

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MARINE CORPS Gazette
Professional Journal of U.S. Marines

OCTOBER 2015

Editorial: Logistics Update and More

As we do every October, we focus this month on the Logistics Combat Element (LCE) of the MAGTF and some of the logistical functions that are necessary to deploy and employ the other elements of the MAGTF. As you can see from the cover photo and the lead article, which is online in the digital edition: (www.mca-marines.org/gazette), we learn about a little known or heralded function of transportation support—rail operations. In the article, 1stLt Christina M. Rapp provides insight into the training required to conduct large scale movement by rail as well as the potential cost saving in the Transportation of Things budget for exercises. It was not long ago that Camp Pendleton and Camp Lejeune had rail connections to commercial rail lines with the expectation that the Division and associated support would move by rail to the port of embarkation. Flooding and lack of maintenance has made those rail lines unusable, but Lt Rapp provides food for thought in using rail to support training away from home station. Other articles discuss the wide range of LCE functions including equipment readiness, logistical information systems, bulk fuel operations, and food service, just to name a few.

At the tactical level, we have two articles on the Shoulder Launched Multi-Purpose Assault Weapon (SMAW). On page 56, Sgt Nicholas Miner argues that the SMAW is not the best weapon with which to arm the 0351 Infantry Assaultman. His argument is well reasoned and backed by personal experience. In juxtaposition on page 60, two authors from the Naval Surface Weapons Center in Dahlgren, VA, write about the fixes that scientists are anticipating introducing for the SMAW which will ameliorate some of the constraints on employing the SMAW in urban environments or enclosed spaces so as to take advantage of the increased destructive power of the New Explosive (NE) round. A video from the Discovery Channel on the NE round is available on You Tube at: https://www.youtube.com/watch?v=qNdN5G-iXd8&list=PLC053625357517AE4. It may have some hyperbole in the narration, but it visually shows the improvements being made in the weapon. I leave it to you to determine if the improvements overcome the constraints.

In addition, we have an article on page 68 by Hamid Lellou, "Unmasking the Islamic State," that illustrates the differences between al Qaeda and the so-called Islamic state. Among others, there is a provocative article on concealed carry aboard installations as a force protection and constitutional right issue.

I think it is of note that three of the articles in this month's edition were authored by enlisted Marines. We have tried very hard to change the view that the *Gazette* is an officers' publication. In fact, it is the professional journal for all Marines, not just officers. We try each month to have articles of professional value for a large demographic that is diverse in both rank and MOS. We hope we are succeeding.

John Keenan

Base Plate McGurk

I first met Base Plate McGurk, USMC in the pages of the *Gazette* in the late 1960s. If you had a problem, then he had a solution(s). He always said, "Even a well-defined complex problem has a Marine Corps solution." I'm pleased to see him back in the *Marine Corps Gazette*. Marine Corps challenges are timeless and so are Base Plate McGurk's solutions.

LtCol Mike Janay, USMC(Ret)

The Alcohol Problem

Other than moralize about the "call to personal responsibility," the article by LtCol Player and Maj Bellaver, "Alcohol Abuse Crushes Readiness" (*MCG* Aug 15), did little more than wag the proverbial finger at junior Marines and lament that "public enemy number one is alcohol abuse." The article neither addressed the root causes of alcohol abuse by Marines nor proposed any real solutions. In fact, when the authors attempted to answer tough questions about why the blotter is filled with alcohol related incidents, they simply waved the white flag and shrugged, "we don't know how to answer those questions."

In my view, the real problem is the legal drinking age in the United States is simply too high. We treat our junior Marines as children and then get upset when they don't act like adults. Junior Marines should not have to wait until they are 21 before a enjoying a beer at the Enlisted Club. Instead of socializing at an on-base club with appropriate supervision and control, the move toward a 21 legal drinking age has directly led to Marines going to off-base clubs and hotels in order to socialize. As the article suggests, the unintended consequences of driving Marines toward unsupervised drinking has not been without cost or consequences.

In 2008, more than 120 university and college presidents and chancellors including academic powerhouses Duke, Dartmouth, and Johns Hopkins, urged that drinking ages be lowered from 21 back to 18. We need to ask hard questions why 18-, 19-, and 20-year-olds can legally drink in most of the developed world, including all of Europe, but not in the United States. It is high time our leaders, especially senior enlisted leaders, stand up for our Marines and urge the Department of Defense and the U.S. Congress to re-think the legal drinking age onboard U.S. military installations.

LtCol James P. Feeney, USMCR(Ret)

Arming the MV-22

In "Arming the Osprey for Self-Escort" (*MCG* Sept 15), Capt Tina Terry offers another perspective on one of today's "hot topics:" exploiting the unexplored capabilities of the MV-22 Osprey. She proposes arming the Osprey so that it can "self-escort" until other airframes catch up to the gap created by the fast-moving, long-range tiltrotor. But the article raises as many questions as it answers, suggesting a much deeper analysis of the problem is necessary before the Marine Corps devotes its already limited resources to what is, by her own admission, a niche mission set.

She argues that "off-the-shelf" weapons kits can fill the escort gap. But let's be honest with ourselves: there's no system out there that can be pulled off the shelf and bolted on to an airframe in a month or two. As an example, looking at Aviation Plan 2015 (AVPLAN 2015) which Capt Terry frequently references, an Urgent Universal Need Statement (UUNS) for improved survivability equipment on the MV-22 was approved in FY14 but won't arrive until FY16. That UUNS includes directed infrared countermeasure gear, a mature technology which is about as "off-the-shelf" as you get. Even with an UUNS, developing and integrating the Griffin B or Advanced Precision Kill Weapon System kit into the Osprey is a process likely to take many, many months. Say that process takes roughly the same two years as the Aircraft Survivability Equipment (ASE) upgrade; by then, the F-35 should finally be shouldering its intended roles, including being able to "capably escort" the Osprey. So the gap would be covered, with two years of wasted funding that could have gone elsewhere.

Capt Terry also notes that arming the Osprey would cost a MAGTF commander the troop seats in that aircraft. Let us assume that the commander believes losing seats is worth the trade-off of better protecting a long-range package. If so, that Osprey can still perform other roles for which it is already suited without undergoing another costly and time-consuming airframe change. Page 2.5.5 of AVPLAN 2015 highlights the existing capability of the MV-22 to perform aerial refueling for fixed-wing platforms. Why not use that to extend the range of the MAGTF's organic AV-8Bs, if you've already decided to sacrifice that Osprey's seats? This mitigates calling in heavily-tasked KC-130s, and the Harrier already carries more than the 300 pounds of ordnance Bell Boeing thinks it can slap on the nose of the Osprey. Capt Terry also discounts using the Osprey to set up a FARP for the MAGTF's Hueys and Cobras; this seems a needless dismissal, since a commander might still need to use FARPs until the Osprey can be armed a year or two in the future. But the Osprey can gas up rotary-wing attack craft actually designed for escort and CAS right now.

I've highlighted two of the issues turning the Osprey into an attack platform raises. Readers of the article will doubtless find more. The Osprey has certainly proven it can do more than its designers intended; there is also the risk of asking it to do too much or overstating the novelty of its capabilities. After all, Task Force 58's seizure of Camp Rhino in 2001 remains the Corps' gold standard for long-range operations, and it was done by fully leveraging the capabilities of legacy aircraft. We already have airframes designed and dedicated to the escort/attack role. In a limited resource environment, we should be looking at ways to bring them in, rather than shut them out.

Maj Ian Brown, USMC

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.

The entire *Gazette* is now online at www.mca-marines.org/gazette.

LtCol Earl "Pete" Ellis Essay Contest!

Help Stimulate Operational and Tactical Thinking and Advance the Marine Corps Into the Future

- Both civilian & military writers eligible
- 3,000-4,000 words maximum length
- Entries due between 1 September and 30 November with entries judged in December 2015 and winners announced shortly after
- All entries eligible for publication in *Marine Corps Gazette*

2015 Theme: The overarching theme concerns formulating solutions for fighting in the urban littorals of the future operating environment and involves responding to one of five questions:

- What should the 21st century MAGTF look like to operate successfully in the urban littoral?
- What is required to develop a 21st century logistics CONOPS and capability?
- What does 21st century combined arms (effects across all domains) look like in the urban littorals and how do we achieve it?
- What investments should the Marine Corps make for the 2030 timeframe to create capabilities and capacity for how we want to fight in the urban littoral, writ large?
- How would you describe 21st century command and control and the architecture necessary to support distributed operations from the squad level up to the MAGTF?

1st Prize – $3,000 & Plaque

2d Prize – $1,500 & Plaque **3d Prize – $1,000 & Plaque**

Funded by the Marine Corps Association & Foundation

Unleash your Visionary Ideas HERE!

Read more about contest details in the October 2015 edition of Marine Corps Gazette, *in the relevant MARADMIN and here:* **www.mca-marines.org/gazette**

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LtGen Robert R. Ruark

MajGen Rex C. McMillian

General Officer Announcements

On 24 July, the Secretary of Defense announced that the President made the following nominations:

Marine Corps LtGen Robert R. Ruark for appointment to the rank of lieutenant general and for assignment as military deputy to the Under Secretary of Defense for Personnel and Readiness. Ruark is currently serving as the Director of Logistics, J-4, Joint Staff, Washington, DC.

Marine Corps MajGen Rex C. McMillian for appointment to the grade of lieutenant general and for assignment as Commander, Marine Forces Reserve; and Commander, Marine Forces North. McMillian is currently serving as the Special Assistant to the Commander, North American Aerospace Defense Command; U.S. Northern Command, Peterson Air Force Base, CO.

Correction

An Editor's Note was erroneously added to page 48 of the September issue of the *Gazette*. Abu Sayyaf is a terrorist group, not an individual.

Marine Corps Association & Foundation

Intelligence Awards Dinner

Congratulations!

2014 INTELLIGENCE AWARD RECIPIENTS

Major Benjamin J. Grass
LtCol Michael D. Kuszewski
Marine Corps Intelligence Officer of the Year
Sponsored by Palantir

Staff Sergeant Brian D. Wiggins
Master Gunnery Sergeant Samuel C. Plott Staff Non-Commissioned Officer of the Year
Sponsored by HP

Sergeant Jeffrey T. Fussell
Master Sergeant Charles C. Arndt Non-Commissioned Officer of the Year
Sponsored by Harris

Lance Corporal Corey A. Lewis
Lance Corporal James E. Swain Enlisted Marine of the Year
Sponsored by Textron AIS

Mr. Garrett S. Jones
Mr. John J. Guenther Intelligence Civilian of the Year
Sponsored by ManTech

2d Radio Battalion
Command Language Program of the Year
Sponsored by BAE Systems

1st Radio Battalion
Director of Intelligence Unit of the Year
Sponsored by Battelle

Full Motion Video Optical Navigation Exploitation Development Team
Director of Intelligence Innovation Award
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Sergeant Nielsen J. Rivera
Language Professional of the Year
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Colonel Drew E. Cukor
MajGen Michael E. Ennis Award for Literary Excellence
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Colonel Matthew L. Jones
MajGen Michael E. Ennis Award for Literary Excellence
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Captain Kevin Kratzer
MajGen Michael E. Ennis Award for Literary Excellence
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Second Lieutenant Sy Poggemeyer
MajGen Michael E. Ennis Award for Literary Excellence
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Naval Surface Fire Support

1st ANGLICO tours the USS *Iowa*

by Roxanne Baker

The U.S. Marines and the U.S Navy have a long-standing history of partnering in naval surface fire support (NSFS) development and tactics. Although the U.S. Navy has since retired battleships and outdated surface shooters, there is an ever-present need for strengthening naval fire support. The Corps' Air Naval Gunfire Liaison Company (ANGLICO) Marines are at the forefront of that improvement.

Nearly 100 Marines from 1st ANGLICO attended a professional military education trip to learn more about the history of NSFS and how the modernization of naval firepower will change in tactics and technology.

The 1st ANGLICO Marines, based at Camp Pendleton, toured the Battleship USS *Iowa* Museum in Los Angeles on 5 June 2015. They separated into small groups and attended five interactive lectures throughout the ship. One class focused on naval gunfire history from the Cold War through Desert Storm; another covered the USS *Iowa*'s history from WWII through Korea. 1st ANGLICO veteran Buzz Adams taught a class on how he used naval gunfire during the Vietnam era.

Another lecture focused on the future employment of Tactical Land Attack Missiles (TLAMs), as they have replaced old outdated platforms. 1st ANGLICO closely works with TLAMs at the tactical level and currently assists the U.S. Navy in its implementation of these tactics into their TLAM training.

The Marines also discussed a *Marine Corps Gazette* article entitled "Fixing Fires Afloat" by LtCol Brian P. Duplessis in the March 2015 issue. Currently assigned to the Joint Staff J–7, LtCol Duplessis describes how force design has been halted for decades with only temporary fixes rather than long-term solutions. He argues for a fiscally responsible decision to be implemented immediately in order to revive the inadequate state of naval surface fire support.

Preparing to go aboard. *(Photo by Maj Eddie Whiteman.)*

The USS* Iowa's *16-inch guns. *(Photo by Maj Eddie Whiteman.)*

>Roxanne Baker is the writer and media coordinator for the MCA&F. She is an experienced multimedia journalist with hundreds of published works, and is married to a Marine.

Naval gunfire tactics are still an essential tool in the USMC's arsenal. As a responsive force-in-readiness, ANGLICO Marines must be adaptable to utilize the most effective firepower at their disposal in emergency situations that are often time-sensitive and critical. The USS *Iowa* PME not only reinforced the unit's understanding of how past Marines used NSFS in iconic battles but also outlined the current state and changing future of how ANGLICO Marines may provide fire support in worldwide arenas.

>Editor's Note: The Marine Corps Association Foundation funded 1st ANGLICO's PME to the Battleship USS Iowa *Museum through the Commanders' Forum Program. If you would like to learn more about the Foundation's programs for Marines, or if you'd like to support the programs with a tax-deductible donation, visit www.mcafdn.org.*

USMC

Structuring an Expeditionary MLG

Moving away from functionally aligned battalions

by 1stLts Christine Hannigan, Clinton Jones, & Isabel Marin

>1stLt Hannigan is a logistics officer currently serving as the CLB-1 Transportation Services Company Executive Officer. She deployed in support of OEF 14.2.

>>1stLt Jones is a logistics officer currently serving as the CLB-1 Headquarters and Services Company Commander. He deployed in support of OEF 14.2

>>>1stLt Marin is a logistics officer currently serving as the Transportation Detachment Officer-In-Charge for the Logistics Combat Element (LCE) SPMAGTF 16.1. She deployed in support of OEF 14.2

In October 2014, officers from Combat Logistics Battalion 1 (CLB-1) presented an article in the *Gazette* entitled "Functionally Aligned Battalion" arguing for the return of a Marine Logistics Group (MLG) structured into functionally aligned battalions. The opportunity to research, learn, and write on the topic assigned was greatly appreciated. This year, however, these same authors would like to present their own opinions on the topic based on CLB-1's experiences while deployed in Afghanistan during Operation Enduring Freedom 14.2 (OEF 14.2) and standing up the LCE for SPMAGTF–Crisis Response–Central Command (SPMAGTF–CR–CC) 16.1.

Multifunctional battalions, i.e., CLBs, organized to accomplish all six functions of logistics were conceived and designed to eliminate the lengthy period of time required for the manning, training, and building of command relationships that must occur when constructing a newly task-organized unit from functionally aligned units—units that are structured to provide one function of logistics such as a maintenance battalion or transportation support battalion. A unit that is already structured for a deployment and has had time to train together is conceptually better than a unit that must be pieced together once a mission has been announced. In theory, a multifunctional CLB can provide all six functions of logistics to an infantry regiment quickly and with little augmentation.

However, this is not yet the reality. CLBs still require extensive manning and equipment augmentation in order to fulfill the tasks for which they were designed. In our workup to OEF 14.2, for example, CLB-1 looked like a single motor transport company with a limited maintenance capability that was operating at about 50 percent manning levels, sitting at around 250 Marines and sailors. CLB-1 received over 400 augments during the 6 months leading up to the deployment.

Last year's article argued that given the amount of augmentation that is required, there is no significant difference from the time required to augment a CLB as there is to stand up a brand new unit comprised of detachments from functionally aligned battalions as the MLG did in support of Operation Iraqi Freedom in 2002–2003.[1] For this reason, it would seem wise to transition back to functionally aligned battalions where Marines theoretically receive sufficient training and equipping for their particular MOS. However, a transition back to functionally aligned battalions is not the best nor is it the only method to solve this issue.

This year, we argue for the alternative. Multifunctional battalions will reduce the time required to augment, prepare, and deploy an existing unit in support of a theater security cooperation or contingency mission. This would require the MLG to fully man and equip multifunctional single digit and two digit CLBs while significantly downsizing the functionally aligned battalions remaining within the MLG.

When the Middle Ground Fails Both Sides

The MLG is, at this point, standing with one foot in the functionally aligned battalion concept and another foot in the multifunctional battalion concept. It has a suite of functionally aligned battalions: Engineer Support Battalion (ESB), Maintenance Battalion, Supply Battalion, etc., and a host of multifunctional battalions, both single digit and two digit CLBs. The MLG is hard-pressed to distribute manpower and equipment across the CLB-X and CLB-XXs that are less than half the size of their functional counterparts. Instead of standing halfway between both concepts and consequently failing to garner the benefits of either one, the MLG needs to choose between having all functionally aligned battalions or fully equipping the already "semi-functional" battalions. The MLG should invest fully in creating standing units

truly capable of providing all six functions of logistics.

The MLG has taken a step in the right direction with CLB-X's fiscal year 2017 table of organization by adding a standing engineer capability in the form of an engineer company in each CLB-X that mimics the capability of an ESB at a greatly reduced capacity. However, not all moves within the MLG have been steps in the right direction. With the creation of transportation support battalion (TSB), motor transport equipment such as 970s and 870s were taken from the CLBs and redistributed to TSB. However, the CLB METs (Mission Essential Tasks) did not reflect the downsizing of equipment: Marine Corps Task 4.4.3.1 which includes the Mission Essential Tasks CLB-Fuel-3001 Operate Bulk Fuel Distribution Site, CLB-Fuel-3002 Provide Tactical Bulk Fuel Storage, and CLB-HEOP-5001 Provide Engineer Equipment Support remain on the CLB X Core METs.

These METs do not exist in a vacuum, unlinked to particular MOSs and equipment; for example, a tactical bulk fuel storage site requires support from 970s and heavy equipment is transported via 870 trailers. The implications of requiring the CLB to execute these METs without the full complement of requisite equipment are extensive. For every routine field operation in which engineers are exercised, equipment must be sourced across the MLG. Weeks are dedicated to the acquisition, joint limited technical inspections, and return of equipment solely in order to accomplish core METs, not unique deployment-specific requirements. As the CLB-X currently stands, it cannot accomplish its most basic mission, let alone be ready to deploy on a "fight tonight" timeline.

Efficiency in training is also greatly reduced when amalgamating a deploying unit from a variety of functionally aligned battalion attachments. Some might say that the model of amalgamation means that the Marines of each function of logistics would check-in to the deploying CLB already having all licensing and equipment requirements fulfilled. In truth for OEF 14.2, they not only still needed MOS training, but the elements from functionally aligned battalions late to attach to CLB-1 checked in untrained in the extensive suite of predeployment training requirements as well. Redundant training stand-downs dominated time that would have been better used increasing licensing or toward training and readiness standards.

In anticipation of the SPMAGTF–CR–CC 16.1 deployment, CLB-1 is encountering the same problems from the OEF 14.2 deployment. We cannot quickly and independently license Marines on vehicles on the forward equipment density list, such as MRAPs and M-ATVs (MRAP all-terrain vehicles). Over the course of two weeks in April 2015, the battalion nearly doubled in size as mechanics, medical, food service, disbursing, aerial delivery, explosive ordnance disposal, and other MOSs checked in. However, while the personnel checked in, the resources and equipment for training did not—nor was the movement of this equipment planned. CLB-1 will continue to request gear for its most basic missions, but now the list of required METs has grown, demanding more manpower in order to request equipment better spent on training Marines and sailors for deployment.

So long as the dissonance exists between a CLB's METs and its table of organization and equipment, it cannot support an infantry regiment or even itself. Throughout 2013 and 2014, CLB-1's Defense Readiness Reporting System reports had the same chorus: the battalion was deficient on the most basic mission essential equipment but could still accomplish the mission provided the MLG sourced the required equipment. This dependence on outside units is contrary to the concept of a quickly mobilized, expeditionary logistics force that provides for itself and its supported units. Not only does it hurt the CLBs, but it hurts the MLG's other battalions, whose equipment needs to be outsourced to the CLBs on a regular basis, adding administrative complications to the owning units.

The Proposed Solution

The solution to this organizational dysfunction is neither the CLB as currently structured nor the FSSG (Force Service Support Group) functional battalions of pre-OIF days. In order to form CLBs that can organically accomplish its own mission and provide support to infantry regiments as dictated by its core METs, the tables of organization and equipment must grow to reflect the mission. Because the Marine Corps has a limited budget, this growth would necessitate the shrinking of functional battalions to redistribute personnel and equipment.

The solution to this organizational dysfunction is neither the CLB as currently structured nor the FSSG (Force Service Support Group) functional battalions of pre-OIF days.

The disparity in the size of the functionally aligned battalions to those of the multifunctional battalions is stark (See Figure 1 on next page). The tables of organization for the functionally aligned battalions are large: 858 for supply battalion, 1,172 for maintenance battalion, and 1,160 for ESB. The table of organization for single digit CLBs is 410. The table of organization for a MEU CLB is 280. The CLBs are the logistics units that are called upon most often to deploy and provide all six functions of logistics. They are the logistics element that most closely aligns to the Marine Corps' desire to be expeditionary in mindset and to nimbly provide sustainability operations in austere environments at a moment's notice. Why then are they severely undermanned in comparison to the battalions that consistently stay at home?

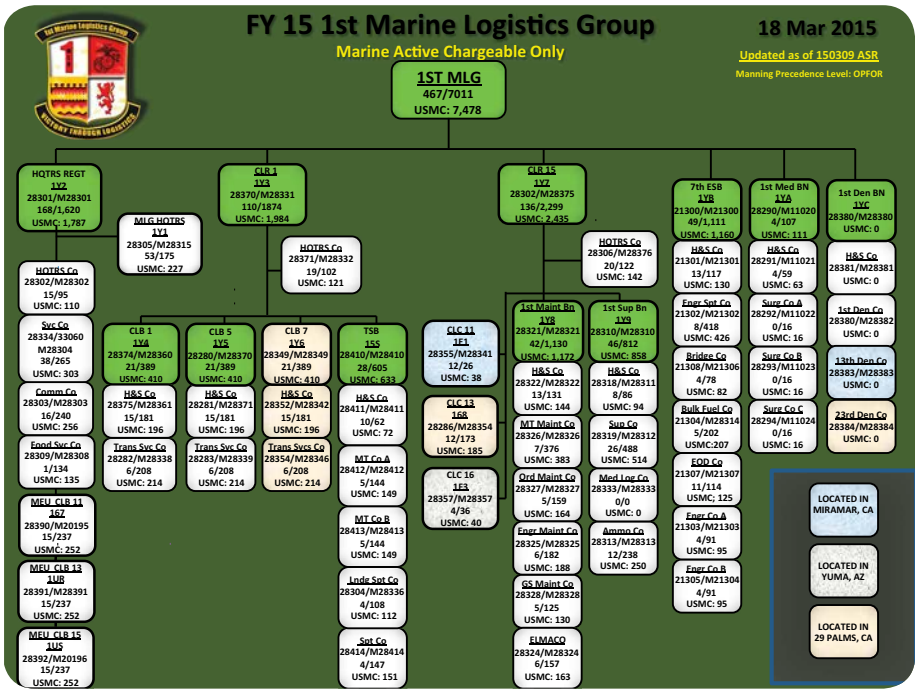

Figure 1. Table of Organization for 1st MLG.

The CLBs' manpower, equipment, and training headaches in the deployment workup would be significantly reduced if large chunks of maintenance battalion, ESB, and supply battalion were transferred to the single digit CLBs standard table of organization and table of equipment. There are only a few capabilities owned by the functionally aligned battalions that cannot be split six ways. Electronic maintenance company, ordnance maintenance company, and general support maintenance company have such an extensive and physically large set of equipment that it would be too costly in space and budget to replicate that capability in six different locations. Bridge company has such a limited set of equipment and MOS-specific Marines that it would not be feasible to split six ways without garnering a hefty price tag in doing so. Medical and dental battalions similarly have space and equipment requirements, as well as command relationships with the Navy that would make it hairy to split them in between the CLBs. Supply Battalion, on the other hand, could be split. Each SMU (Supply Management Unit) in the single-digit CLBs would support one of the infantry regiments and one or two Marine Wing Support Squadrons and have its own line of accounting. It would be imperative for the SMU platoons to have consistent SOPs across the MLG, but in terms of manpower and space, their division between the CLBs would make them markedly more deployment ready. Food service is another company that could be split into platoon-sized elements. The food service Marines would thereby gain more opportunities to train in austere field environments. These changes to the MLG table of organization are displayed below in Figure 2.

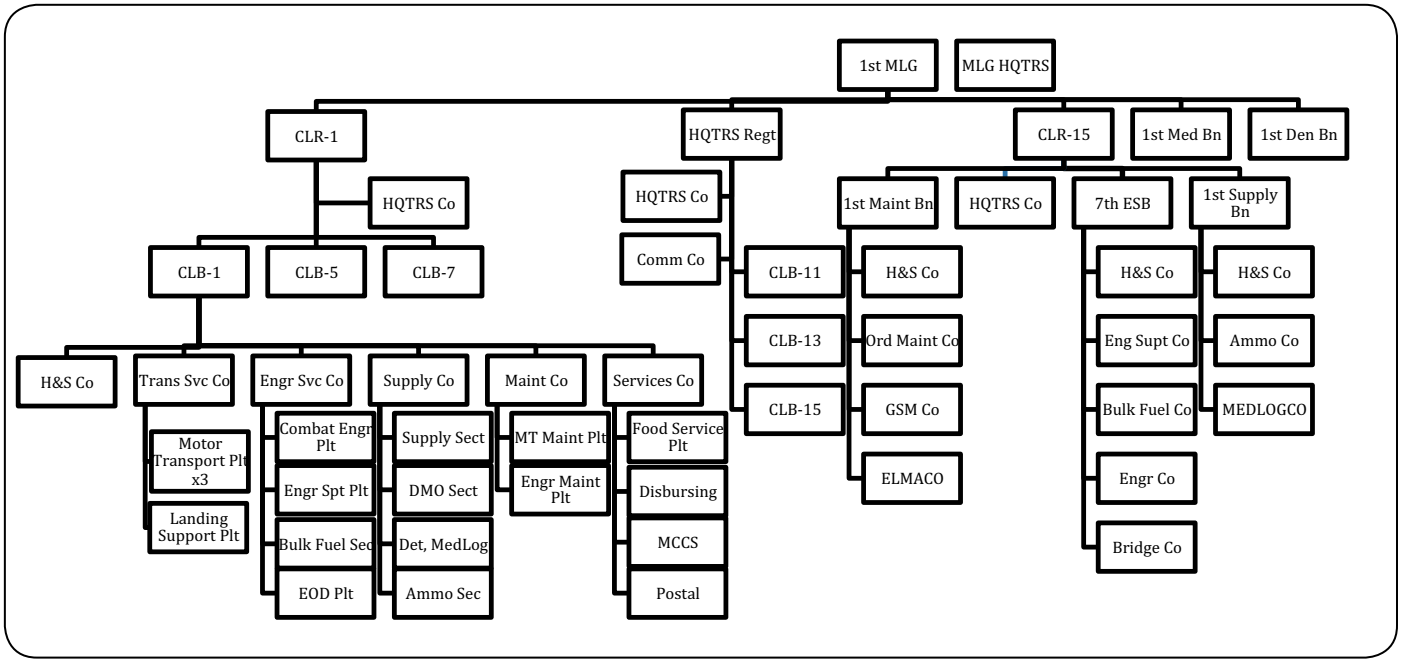

Figure 2. Proposed MLG structure.

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The aim is to better posture the MLG to meet the call of future operations. The CLBs, already manned, trained, and equipped in all six functions of logistics are the answer. The Futures Directorate at Quantico is currently exploring the concept of expeditionary advanced base operations based on "pushing sensors, shooters, and sustainers forward."[2] The CLB can meet the sustainment needs in a more responsive way than an amalgamated assortment of Marines pulled from functionally aligned battalions. Not only would the Marines have trained together and worked together in a meaningful way before deploying, but the CLBs would be the known go-to unit for expeditionary Marine Corps logistics, increasing their likelihood of training with and learning to work with other Services and coalition partners. *Expeditionary Force 21* specifically addresses this need by calling for "fostering interoperability with future coalition partners."[3]

The exact answer cannot be achieved in one article, but Figure 2 sketches a working draft. This article aims to fuel debate on how to consolidate more of the MLG into the CLBs and to spur a movement away from functionally aligned battalions.

Notes

1. Marine Corps Center for Lessons Learned, *Marine Logistics Group Organization and Deployment Cycle in Support of Operation Iraqi Freedom,* (Quantico, VA: 30 June 2008).

2. LtCol Jesse "Twist" Janay, "Advanced Base Operations," *Marine Corps Gazette*, Letters to the Editor, (Quantico, VA: May 2015).

3. Maj Mathew T. Richie, "Advanced Base Operations," *Marine Corps Gazette*, (Quantico, VA: February 2015). See also *Expeditionary Force 21*, (Washington, DC: HQMC, March 2014).

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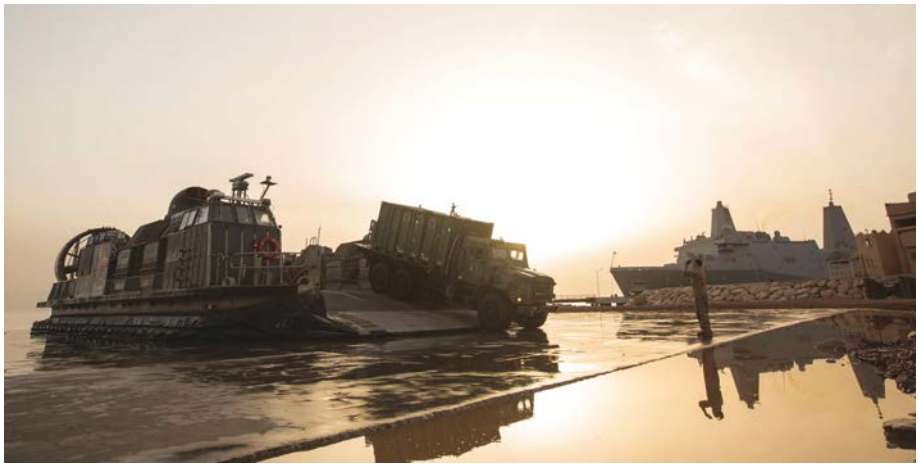
Combat Equipment Readiness

Proactively engaging in maintenance management

by LtCol Matthew Dumenigo

As we reset Operation Iraqi Freedom/Operation Enduring Freedom equipment, as well as implement a relatively new system, Global Combat Support System–Marine Corps (GCSS–MC), now is the time to explore potential changes in maintenance management and how we do business. To meet the requirements of the "new normal," continuing MEU rotations, and potential future budget cuts, we cannot afford a rental vehicle mentality with our equipment. In most cases, we will train, deploy, and fight with the same equipment set. Therefore, we need to both return to basics and also give a fresh look to what would benefit our equipment and our Marines charged with maintaining it. What follows are institutional, battalion/regimental and individual tactics, techniques, and procedures and suggestions for improving ground equipment readiness as it relates to our current maintenance management program.



We train with, deploy, and employ the same equipment set. *(Photo by Cpl Todd F. Michalek.)*

> ***Maintenance will always pose problems for commanders because it requires good organization, sound training programs, and plenty of supervision.***[1]

Who wants the job?

The first problem: no one wants the job. I write that facetiously because many years ago as a lieutenant, I recall the term maintenance management officer (MMO) striking pain in the heart of me and my classmates at the Basic Logistics Officers Course. Most of us had not even heard of this billet at TBS. In retrospect, I'm fairly certain the 0402 captains at the TBS MOS mixers kept the world of maintenance management close hold so as not to deter future logistics officers. That is mostly because future Marine officers had joined our beloved Corps to be leaders of Marines, not "managers of maintenance." I suspect this sentiment remains the same today, confirmed by my own lieutenants.

And yet, the MMO billet remains one of the most critical billets a logistics officer can have during his career, and if performed correctly, a billet worth its weight in gold to a battalion commander. The knowledge and insight gained from studying the supply/maintenance cycles, conducting inspections, and yes, standing FSMAO (field supply and maintenance analysis office) inspections pays dividends for that officer as a future battalion/regiment, or MEU S-4 (logistics) officer and LCE operations officer/executive officer or future commander. When done correctly and aggressively, maintenance management can be a rewarding job to any officer who steps up to the challenge. Having said that, with the advent of GCSS–MC, and a renaissance of the FSMAO inspection, maintenance management is a growth industry requiring additional improvement and attention.

>LtCol Dumenigo has deployed with four MEUs; he has deployed in support of Operation Iraqi Freedom and operations in Liberia, Kosovo, and Albania.

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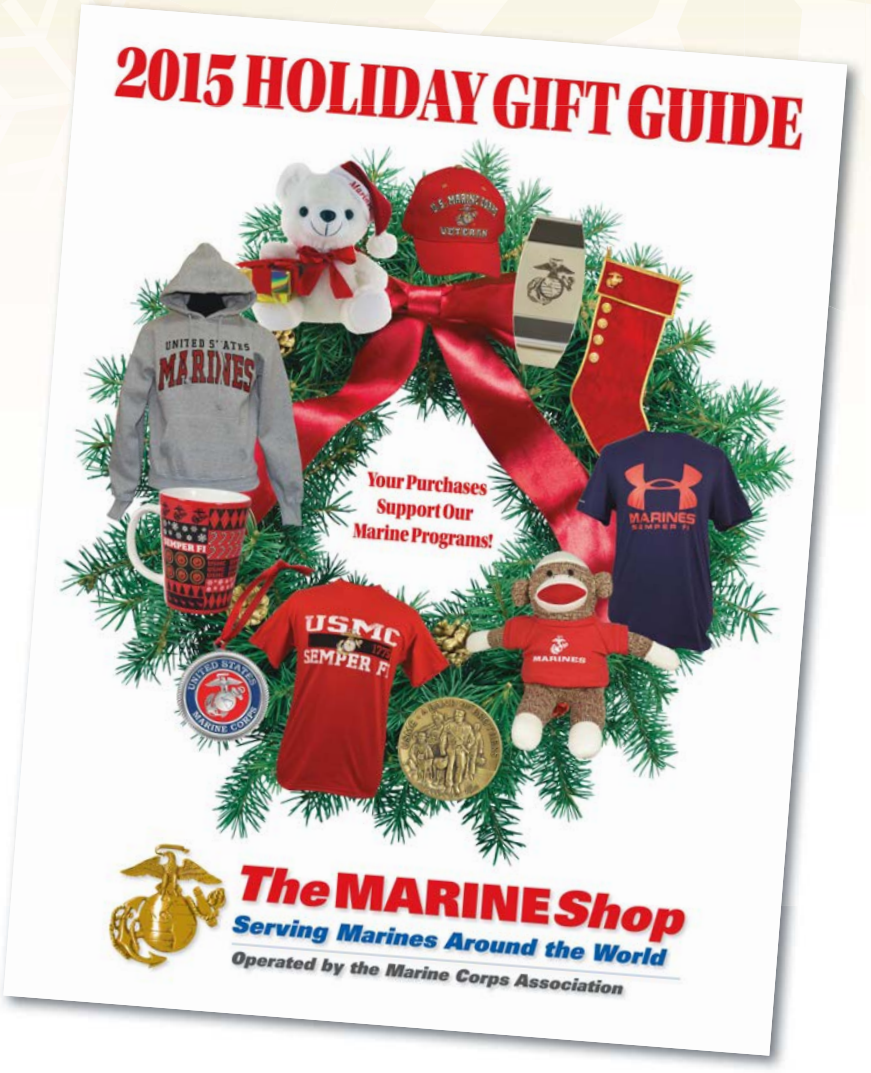

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Enter the Combat Equipment Readiness Program and Officer

At the risk of being accused of merely putting lipstick on the pig, the Marine Corps should replace the term "Maintenance Management Program" with "Combat Equipment Readiness," and do away with its maintenance management officer billet, replacing it with combat equipment readiness officer. This change would represent a symbolic shift from what is too often an emphasis on management for management's sake vice a focus on the true readiness of our equipment. The term *combat equipment readiness* (CER) infers the desired end state. All actions should drive toward ensuring equipment is ready. Currently, we spend inordinate amounts of time and effort ensuring the management is right but not always with the right priorities. A battalion may have an excellent program in appearance with its maintenance management policies neatly document protected, well-organized, have "pretty" desktops and turnovers, yet still have truly lousy equipment on the lot. A MMO can actually do *okay* on a FSMAO inspection if he has completed biweekly reconciliations, has updated policy letters, has required pubs on hand, conducted an annual table of organization and table of equipment review, and worked some classes and inspections into the training schedule. However, attention to preventive and corrective maintenance is still king. A commander and his combat equipment readiness officer would prioritize actions and programs necessary to achieve maximum equipment readiness.

Combat equipment readiness would include an understanding of the supply requisition process as it relates to improving ground readiness. Good MMOs learn supply along the way, through conducting reconciliations and reviewing their production reports. However, almost all of this is entirely driven by their own initiative. CER requires that one officer or team closely review the entire lifecycle of a broken piece of equipment—from the moment an operator breaks equipment through when maintenance receives it; he would scan the seams between and within both supply and maintenance.

Too often this billet is stocked with what may appear to be a weak officer. It could be he is a weak officer, but before applying that judgment, it's useful to understand that current MMOs receive about a week or less of maintenance management training at the Basic Officers Logistics Course and absolutely none at TBS. This means that an officer who is about to serve as a special staff officer to the battalion commander receives only one week of formal training and education. On-the-job training for most of these officers is bleak, especially for those happy officers assigned to infantry battalions when they arrive at their units and find they have an NCO as their maintenance management chief. I recall during my first deployment ours was a lance corporal.

Ultimately, a CERO billet requires outgoing, aggressive officers with savvy.

As previously mentioned, MMOs need to get out from behind their GCSS–MC accounts and get to the lots and the bays … and the field. Providing training for both supervisors and clerks is required by *MCO 4790, Ground Maintenance Management*, (Washington, DC: HQMC, January 2014). With the implementation of GCSS–MC, much emphasis is placed on the correct personnel utilizing the system. Clearly, the combat equipment readiness officer (CERO) would access GCSS–MC regularly. However, the new expectation of the former MMO should evolve from the guy who scans reports, sends emails, and draft policies to a CERO who is regularly out of the office inspecting equipment, pulling SL-3s (stock lists), checking urgent modifications, etc. Essentially, his is a proactive billet that would be *required* to spend time in the commodities vice behind the computer.

Ultimately, a CERO billet requires outgoing, aggressive officers with savvy. As we continue to implement and "get to know" GCSS–MC, it requires innovation and the willingness to question the status quo. The billet requires officers with significant interpersonal skill and the ability to pull disparate information together from commodity owners, company commanders, salty chief warrant officers, etc. A good MMO is not afraid to tell the boss the truth. It requires the ability to persuade, incentivize, demonstrate strength, and force. *In other words, it requires leadership.*

The Commander's Role

Accountable to the Commandant

Maintenance has to be prioritized in order to achieve maximum equipment readiness. *(Photo by Cpl Todd F. Michalek.)*

of the Marine Corps for equipment, commanders have and always will play the integral role in the overall maintenance of their unit's equipment. The CERO should brief a commander on more than just a deadline report. Too many MMOs receive the guidance to "track maintenance readiness" and "get us ready for FSMAO." Commanders should employ their CEROs to ensure the right maintenance actions are occurring throughout the varying changes of a unit's training schedule. This requires leadership over management. Commanders should receive regular reports on preventive maintenance to ensure equipment readiness. With GCSS–MC, an officer can more easily produce reports on preventive maintenance statuses, modifications, calibrations reports, and status of supply parts on order. These reports will assist the CERO in identifying to the commander areas of delay or concern in the maintenance process.

Ultimately, it is the commander who typically creates the energy in a unit toward any effort. Field Marshall Erwin Rommel, in reference to command in battle, wrote:

> A commander must also concern himself with the details of command and should pay frequent visits to the fighting line ... It is a mistake to assume that every unit officer will make all that there is to be made out of his situation; most of them soon succumb to a certain inertia. Then it is simply reported that for some reason or another, this or that cannot be done—reasons are always easy enough to think up. People of this kind must be made to feel the authority of the commander and be shaken out of their apathy.[2]

Ground equipment readiness must be treated with similar attention. On most lots, one can tell if there is apathy or attention given to it by its leaders. The soul of a company or battalion maintenance program resides in its dedication to preventive maintenance, both 1st echelon and 2nd echelon. The role of the CERO should be to orchestrate and organize time on the commander's calendar for him to get out of the office to periodically check preventive maintenance sheets against his equipment and the annotated preventive maintenance sheets against what parts or SL-3 are on order on the MPR (maintenance production report). Most commanders occasionally receive a weekly maintenance briefing in the office, called a log readiness brief (LRB) or material readiness brief (MRB). Commanders (platoon through battalion) should conduct a "walking LRB/MRB" and have their MMO or maintenance personnel bring the MPR to see the equipment that is deadlined on the report, and what equipment is not on the report. Clearly, this is a return to basics, and some commanders do this already. In addition, nothing should be of surprise to the CERO, because the majority of his time should be out of the office working with commodities in the bays, armories, and lots.

In combat, maintenance is as you go. *(Photo by Cpl Todd F. Michalek.)*

Commanders are required to create commander's guidance for training, as well as review and sign training plans. It behooves commanders and their logistics staff to give solid guidance per-

Just as the CAAT needs training, so do maintainers. *(Photo by Cpl Todd F. Michalek.)*

taining to maintenance. LTG Collins, USA(Ret), provides insight to what may influence training guidance:

> In combat, you maintain as you go. Mechanics work their maintenance tasks every day. The crews do their preventative maintenance every time they stop. If a unit has to have a lot of maintenance recovery after going to a major training era or maneuver, its troops, in bald terms, are not caring for their equipment every day as they should, and its maintenance and support elements are failing to participate in the best training they can get, supporting the tactical elements in the field.[3]

While maintenance should support and not drive training, the reality is that training and maintenance support each other. During combat training, training objectives should not only include how units conduct pre-combat checks/inspections but also include how more substantive preventive maintenance and corrective maintenance will be accomplished in the field. Only the commander can truly drive this requirement.

Additional Recommendations, Training, and Incentives

To mitigate training shortfalls and experience in battalion maintenance management personnel, regimental level S-4 shops should implement regimental schools for combat equipment readiness training for battalion officers and Marines. Traditionally, regimental schools provide shared expertise across the battalions, help build a network or community of interest, and provide an overall awareness of the challenges that face the battalions on a day-to-day basis.

Logistics school should spend considerable time devoted to teaching officers 1st echelon preventive maintenance on equipment, especially motor transport assets. Training should focus on common trends to look for on specific equipment, how to inspect a record, etc. As discussed, it should also include increased time spent on supply requisition. This likely comes at the expense of other training; however, it would be well worth it.

For future battalion/squadron commanders, adding a class on sustaining combat equipment readiness at the MAGTF Tactical Commanders Course in Yuma, AZ, would be beneficial. Many future commanders are returning from three years "out" at a HQMC tour, Joint duty, or school. Bringing a battalion commander's mindset back to the basics of what to look for on his lot and properly utilizing his S-4 team, to include his MMO and supply officer, would enable the commander to better integrate maintenance into operations and craft an effective maintenance sustainment plan.

Relatedly, both Marine Corps Logistics Operations Group and Marine Corps Tactics and Operations Group should emphasize the importance of operations officers, to include a healthy dose of maintenance considerations (maintenance training, stand-downs, etc.) in their training plan and training and exercise employment plan. This ensures S-4s are creating events that are deconflicted and sustainable. Commanders, as ultimate owners of their training plan, need be cognizant of this input. Some operations officers do but just as many do not. *MCO 4790.2* mandates that MMOs provide input to the S-3 (operations), and that training is included. However, many operations officers are not aware of it (until a Service Life Assessment Program or FSMAO inspection) and then hurriedly incorporate a few line items in an enclosure somewhere.

Finally, let's recognize the success of current and future 0411 maintenance management Marines. Other logistics occupations have rewards programs, for example, Motor Transportation Marine of the Year, and Ammunition Technician of the Year; I am unaware of any such program for our current maintenance management community.

In closing, regardless of whether the Marine Corps chooses to transition its maintenance management program and Marines to a combat equipment readiness program and Marines, we, as commanders and staff officers, need to proactively engage the maintenance effort from beyond the office. Getting out from behind the computer is not a new recommendation. However, doing so in pursuit of inspecting equipment needs to be a priority for an entire chain of command, especially the commander and his MMO. Being an MMO is a contact sport. Our current and future operating environments demand that we better sustain our equipment.

Notes

1. Arthur S. Collins, Jr., *Common Sense Training: A Working Philosophy For Leaders*, (New York: Presidio Press, 1978), 28.

2. B. H. Liddell-Hart, *The Rommel Papers*, (New York: De Capo Press, 1953), 226.

3. Collins, 27–28.

GCSS–MC

Too much grease on the keyboard

by 1stLt Jordan T. Leonard

Over the past 20 years, the private sector has used technology to streamline the way business is conducted, saving time and money, increasing efficiency, and increasing transparency. During the early part of the decade, the Marine Corps has gotten "in step" with the technical revolution by implementing Global Combat Support System–Marine Corps, better known as GCSS–MC. The system was designed to combat fraud, waste, and abuse by improving accountability of gear, improving records keeping, streamlining procedures for ordering parts and equipment through supply, and increasing transparency by allowing commanders at the highest levels to view in detail the supply and maintenance readiness of subordinate commands. By and large, the system is doing what it was intended to do; however, the implementation has not come without its problems.

Being recently appointed as a battalion S-4 (logistics) and maintenance management officer (MMO), I observed a high degree of influence from the commander and above level over maintenance and supply programs at the battalion and even company level. Upon further investigation, I found that this level of scrutiny is necessary due to misimplementation of the system across the Marine Corps. Below are examples of how the implementation of GCSS–MC is having an adverse effect on the Marine Corps:

Equipment availability. GCSS–MC is a computer program, and it is intended that each maintainer have his own computer to input progress on his maintenance. However, computers are sparse in many maintenance sections, which often means 20 or so Marines are competing for valuable computer time to accomplish required data input tasks. Maintainers must cease their productivity and wait for open computers to input their progress, which results in wasted time and slows the progress of fixing mission essential equipment. With more and more budgetary restraints, the problem of computer availability is likely to get worse before it gets better.

Maintainers have to wait for open computers to input maintenance progress. *(Photo by Brooke Leonard.)*

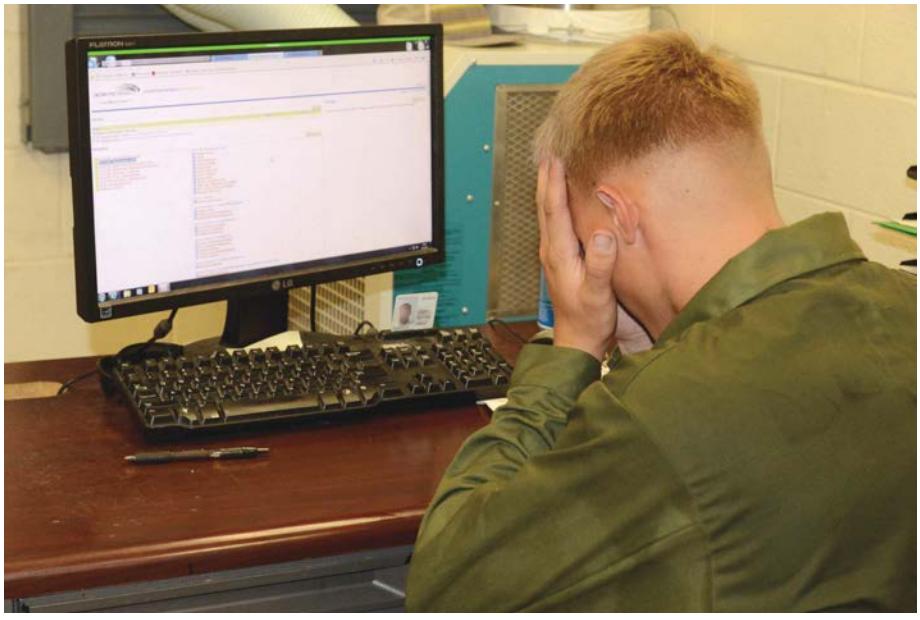
Manpower. GCSS–MC increases transparency and allows a commander to make decisions using the most up-to-date data on supply and maintenance readiness of their subordinate units. To give the commander this view, one must understand the strain that GCSS–MC has been placing on the maintenance sections. It is not uncommon for a maintenance chief to arrive at the maintenance shop at 0530 to organize tasks for the day and to pull reports from GCSS–MC, as the system will likely become backed up if pulled any later. When the Marines arrive at 0700, the maintenance chief will assign them their tasks and monitor their progress in GCSS–MC, using one of the few computers in the shop. The maintenance chief is not observing his Marines but observing their progress from behind a computer screen through GCSS–MC. After the day is finally complete, the maintenance chief will inspect what is expected and ensures that proper maintenance has been conducted on the equipment, completing the day between 2030 and 2130. The bottom line is that maintenance is the primary job of the maintainer, and supervising those maintainers and maintenance activities is the primary job of the maintenance chief. However, GCSS–MC is forcing our maintainers and maintenance chiefs

>1stLt Leonard is assigned as the Maintenance Management Officer, 2d Medical Battalion.

to focus more on the virtual world of maintenance management rather than allowing them to focus their efforts on preventive and corrective maintenance. In turn, this wastes time, money, and ultimately hurts the warfighting capability of the Marine Corps.

Training. GCSS–MC is not the simplest program to operate and to effectively implement a computer program as complex as GCSS–MC requires a significant amount of training. Theoretically, this training can be accomplished at the primary MOS school or at training centers for Marines already in the Fleet; however, it is hard enough to teach junior Marines their primary MOS with the time constraints we place on primary MOS training, let alone incorporate reasonable time to facilitate GCSS–MC training. A half day to full day of training at a Maintenance Readiness Training Center is really a "check in the box" and not a real solution to the training of a complex computer program like GCSS–MC. I pose the following comparison: Every Marine is a rifleman; therefore, once a year every Marine is given two weeks to hone his marksmanship skills. Likewise, every maintenance Marine is also expected to be an expert within GCSS–MC. We expect a Marine to learn a complex computer system in a one-day class, yet many Marines struggle to qualify with a Service rifle after countless hours at boot camp and two weeks per year practicing Marine Corps Marksmanship. If the Marine Corps is going to make GCSS–MC a priority, then we must ask ourselves how many hours we are willing to dedicate to ensure our Marines are not only proficient in their MOS but also proficient in GCSS–MC.

If properly implemented, GCSS–MC will greatly improve the capabilities of the Marine Corps. But how do we correct the deficiencies listed above? Many would argue that we should cut our losses: the Air Force implemented GCSS not too long ago and terminated the system after one year. The Army is in the beginning stages of implementing the system and is likely to follow the Air Force in discontinuing the program. However, GCSS–MC adds valuable checks and balances to the supply and maintenance system. I propose the solution to fix the problems being experienced within GCSS–MC and future computer-based programs is to establish a specific MOS with training comparable to technical experts in the civilian sector. A simpler alternative would be to expand an already existing MOS to include being trained in a functional area as a GCSS clerk. I argue to expand the role of the 0411 maintenance management specialist to include the duties of GCSS clerk. The 0411 is already trained in the eight functions of maintenance management which include maintenance administration, training, records and reports, publications control, equipment availability, preventive and corrective maintenance checks, supply support, and maintenance-related programs. These eight functions are primarily what GCSS-MC is designed to streamline, but the 0411 has minimal exposure to the program until he reaches the Fleet.



We expect the Marine to learn a complex computer system in a one-day class. *(Photo by author.)*

GCSS–MC is not a broken system, but we have failed to efficiently implement the system. The Marine Corps already has a primary MOS, the 0411, whose job revolves around the proper implementation of GCSS–MC. We have a tendency to remove the 0411 from the maintenance section and instead have them supervise GCSS–MC from an S-4 (logistics) shop. Therefore, we are placing a job that can be accomplished by one Marine on one computer trained in one MOS school on an entire maintenance section, bleeding time, resources, and eventually mission readiness and capability of a battalion or regiment.

As with the civilian sector, the Marine Corps is evolving, and if we want to continue to develop in the technical field, we must make it a priority to train and develop our Marines effectively in technical areas such as GCSS–MC as well as their primary MOS. Expanding the role of the 0411 to include becoming a GCSS clerk will lighten the demand for equipment in the form of computers, lessen the immediate demand to train multiple MOSs in GCSS–MC, and it will allow the maintenance chief to supervise his or her Marines in the conduct of their MOS. Further, creating a GCSS clerk will save the Marine Corps time, money, and maintain transparency without hindering productivity.

>Author's Note: The author would like to acknowledge the assistance of SSgt William Brown who was instrumental in helping the author understand GCSS–MC.

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Marine Corps Flight Medical Training

The time is now!

by CDR Ryan Meskimen, USN

>CDR Meskimen is the Executive Officer of 1st Medical Battalion. He deployed in support of Operation Iraqi Freedom in 2009.

Historically, the U.S. Army (USA) has provided flight medic instruction through the Flight Medic Course (FMC) for U.S. Navy (USN) corpsmen supporting U.S. Marine Corps (USMC) medical battalions. This course is required in order to attend the Joint Enroute Care Course (JECC). JECC is the established qualification to certify corpsmen to provide enroute care aboard Marine Corps aircraft. In fiscal year 2014 (FY14), the USA notified the USN that it would no longer conduct the FMC after FY15. Navy Medical Education and Training Command (NMETC) and its subordinate Navy Medical Operational Training Center in conjunction with Marine Corps Training and Education Command (TECOM) are working to replace the FMC with a Navy-sponsored course. The goal is to ensure the Marine Corps has sufficiently trained and ready corpsmen to provide enroute health care to the Marine warfighter.

The current course is conducted utilizing USA Blackhawk helicopters. The hope is for the future course to take place in Pensacola aboard USN rotary-wing aircraft. The goal is to go live in late FY16. Obtaining quotas for the USA-facilitated flight medic course has been difficult as search and rescue corpsmen are granted priority over Fleet Marine Force corpsmen. Having balanced quotas is essential to ensure adequate Fleet and Marine support. The future course will bear the same constraints.

As America's ready force, the USMC will likely be the first entrant to any emerging theater of operations. That likelihood means the Marine Corps will—at least initially—have the responsibility for intratheater patient movement. Therefore, as the Marine Corps returns to its expeditionary roots, leadership has prioritized the placement of corpsmen aboard airframes, specifically the MV-22 Osprey. The time is right for the Marine Corps to develop a Service-specific enroute care course for corpsmen serving with Marine Logistics Groups and MAWs. This course would combine the flight medic requirements with the joint enroute care requirements and apply them to USMC-specific airframes, properly preparing corpsmen and medical professionals for tactical evacuation and enroute care missions. There are a number of Marine units that have a stake in the execution of patient movement on the battlefield. In addition, there are many USMC commands that provide and oversee the training and equipping of USMC patient movement capabilities.

There are five Marine Corps commands commanded and manned by USN personnel. Three medical battalions reside within the Marine Logistics Groups and two field medical training battalions (FMTB) fall under TECOM

Historically, the U.S. Army has provided flight medic instruction for Navy corpsmen. *(Photo by PO3 Monique LaRouche.)*

and are stationed aboard Camp Pendleton and Camp Lejeune. When an officer or enlisted sailor attends FMTB, he is exposed to the organization, culture, capabilities, and employment of the USMC as preparation for assignment within the Fleet Marine Force. FMTB West and East are collocated with 1st and 2d Medical Battalions, respectively. Though the FMTBs do an excellent job preparing corpsmen to serve with USMC units, they do not address the necessary preparation for corpsmen to conduct enroute care. Though communication and collaboration occur to ensure newly graduated students are received by medical battalions, MarDiv and MAW units, the exclusivity of the two different chains of command is maintained and combined training does not occur.

Additionally, Marine medium tiltrotor (VMM) squadrons reside in the vicinity of both FMTBs. These squadrons are comprised of the MV-22 that has the range, speed, and capacity to provide both tactical evacuation and, when configured, a robust enroute care platform that is rivaled by few other aircraft in the Department of Defense's inventory. These aviation units have very little, if any, interaction with FMTBs and no established enduring training with the medical battalions. Often, these units fly simulated missions in an effort to become proficient at tactical evacuation. They are not engaged with a FMTB or medical battalion to use real medical assets to develop and maintain their skills.

As the three training Commands (NMETC, NMOTC, and TECOM) confer to develop the next generation of flight medic and enroute care training, there is an opportunity to leverage Marine Corps assets. The Marine Corps should look to initiate basic enroute care courses into the FMTB curriculum. These battalions have the leadership and education knowledge to implement a codeveloped curriculum that better prepares corpsmen and nurses to provide critical patient transport. The Marine Corps already has the medically trained personnel, the appropriate aircraft, and the ability to implement a thorough synergistic training program to produce skilled professionals trained to effectively operate aboard USMC aircraft.

... there is an opportunity to leverage Marine Corps assets.

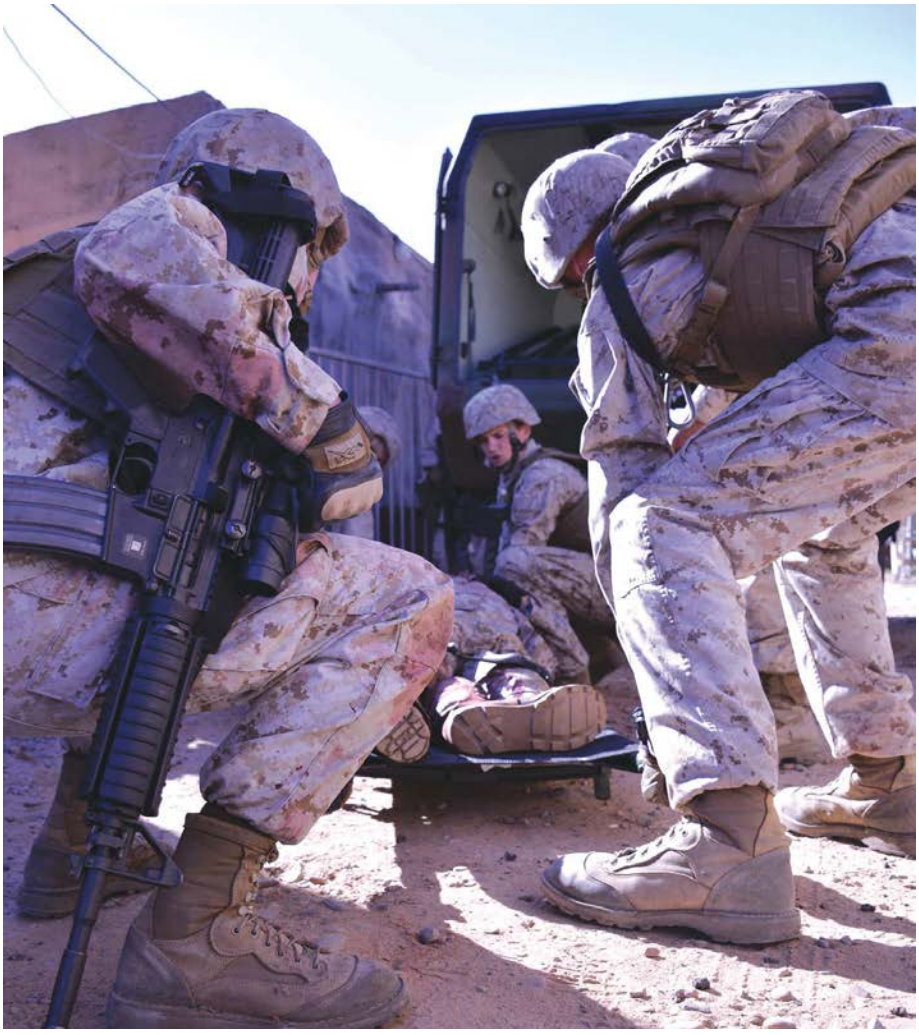
Additional aircraft-specific training could be housed within Center for Naval Aviation and Technical Training with little incremental cost given the resource-constrained environment of our Services. This new training program, with collaboration and coordination, could easily fit within the current USMC structure. Medical battalions contain organic and health service augmentation personnel: nurses, doctors, and corpsmen. A cadre of these

professionals could serve as rotating facilitators and medical trainers with sufficient capacity to produce the necessary numbers of trained personnel per year required by the medical battalions to support their enroute care requirements and MAW units could then provide a more robust tactical evacuation capability. Additionally, carefully crafted training plans of the VMMs that include their flight requirements for tactical evacuation would serve a dual role and support the enroute care training programs of the FMTBs.

Marine Corps doctrine for patient transport is evolving. The Army's decision to move to a forward dedicated air ambulance model is not compatible with Marine Corps expeditionary warfare in immature environments. The elimination of the FMC has created an opportunity to emplace a Marine Corps-specific curriculum and protocol that will better meet the long-term needs of the Fleet Marine Force. The proposed plan for the FMC replacement does not address all the training needs of the USMC and has potential for domination by the Fleet's search and rescue training requirements. The hurdles medical battalions face today will likely continue under the replacement training proposed by NETC, NMOTC, and TECOM for implementation in FY16. If the USMC were to establish this training using existing resources, the Service would control the training capacity and quality independent of the competing interest of Navy fleet search and rescue corpsmen.

As the Marine Corps transitions from a decade of conflict in a mature theater where dedicated USA air ambulance companies were commonplace back to their expeditionary roots, there is a need for more medical personnel trained to provide patient care aboard USMC organic aircraft. The Marine Corps has the personnel, the structure, and the aircraft to establish a robust training program. The time is now to establish this training program and ensure all Fleet Marine Force Navy personnel are properly trained so they can continue to provide excellent, quality field medical care in support of our Marine Brethren.

USMC



Sailors transporting a Marine to a surgical platoon during a training exercise April 2015. *(Photo by author.)*

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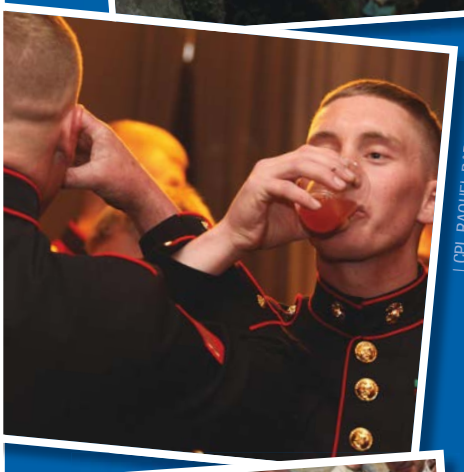

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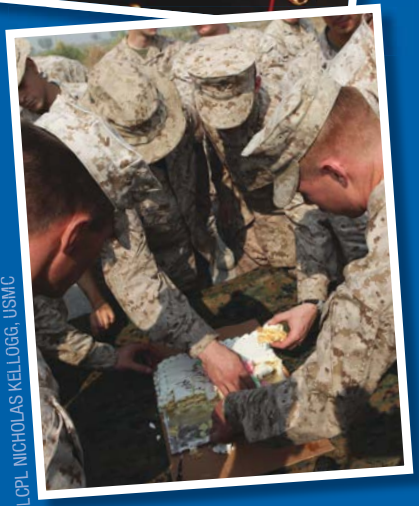

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Managing the Global Distribution Network

Supporting today's MAGTF

by Col Bruce Nickle

The New York Times columnist Thomas Freidman wrote *The World is Flat* (New York: Farrar, Straus & Giroux, 2005) as a result of globalization, technology, and the growth of wealth in a multitude of nations. In this information-centric world, countries must move fast to keep pace, meet challenges in governance and economics, and respond to fast moving crises. Freidman defined ten "flattners" as leveling the global playing field. As the Nation's premier expeditionary or "9-1-1 force," the Marine Corps must leverage the Defense Transportation System (DTS) and use organic, joint, commercial, and partner nation transportation and distribution capabilities to support MAGTFs conducting distributed operations in this environment. To do this, the Marine Corps must institutionalize changes or flattners made in transportation and distribution since 9/11 through doctrine, equipment, training, and education.

A flexible and effective Marine Corps capability to manage the DTS was built during the past 14 years. Through lessons learned, focus on mission accomplishment, and innovation of our Marines, we have established new distribution capabilities that manage the distribution nodes in between shipping activities (depots, vendors, etc.) and final destinations (MAGTFs). The DTS nodes being managed are established by U.S. Transportation Command (USTRANSCOM) and geographic combatant commands, which cut across tactical, operational, and strategic lines of operation. The DTS is highly complex and is the best of its kind in the world. However, it is less effective when supporting small volume or low frequency missions and is not reliable in antiaccess or area denial environments. Unfortunately, where it becomes less effective is where the Navy-Marine Team needs it most today and in the future. To ensure sustainment flows effectively and efficiently, the Marine Corps must continue to use its flattners to "affect" the distribution nodes to sustain forward deployed MAGTFs.

The Distribution Management Center will assist in the retrograde of equipment from Afghanistan. *(Photo by Cpl Alejandro Pena.)*

First is the Marine Corps Logistics Command as the Distribution Process Owner (DPO) of the Marine Corps. *Marine Corps Order 4470.1A, MAGTF Deployment and Distribution Policy*, (Washington, DC: HQMC, October 2007) has already established MARCORLOGCOM as the DPO for the Marine Corps. At the center of its distribution operations is the Distribution Management Center (DMC). The DMC provides distribution planning, monitors the performance of, and takes action to improve DTS support to MAGTFs. The DMC utilizes its own analytical capability, planners, and distribution process advocates (DPAs) in coordination with Marine forces, MEFs, forward deployed MAGTFs, supporting commands (i.e. USTRANSCOM), and HQMC to make sure sustainment flows. Some examples of recent DMC activities include: the retrograde of Operation Enduring Freedom equipment out of Afghanistan, assisting Marine Forces Pacific to establish a USTRANSCOM channel flight in support of Marine Rotational Forces–Darwin, and assisting

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The Marine Corps must use organic as well as joint and commercial transportation assets to support the deployed MAGTF's distributed operations. *(Photo by Sgt Justin M. Pack.)*

the Defense Logistics Agency (DLA) in identifying and clearing a backlog of sustainment supplies flowing through a DLA multimodal surface freight distribution center. Over time, this capability must grow and be capable of capturing customer wait time and analyzing distribution node performance in the DTS to eliminate inefficiencies before they become problematic. As Marines learn about and become more accustomed to this capability, they will contact the DMC if they need assistance in planning or to improve distribution node performance.

Second is aligning strategy and doctrine to policy: To do this right, the Marine Corps must link policy (*MCO 4470.1A*) to doctrine by adding a distribution chapter to *Marine Corps Warfighting Publication 4-11.3 (MCWP 4-11.3)*, Transportation Operations, (Washington, DC: HQMC, September 2001). Only then will the Marine Corps begin to man, train, and equip this capability to its full potential. Next, it must develop an in-transit visibility strategy. An in-transit visibility strategy will provide the vision to resource asset visibility capability gaps that prevent our commanders from having visibility of sustainment flowing across the DTS. Visibility of sustainment and equipment is critical as we operate from seabases and increasingly distributed operational environments. Some examples of distributed operations today are the SPMAGTFs operating in Africa and the Middle East and routinely disaggregated MEU operations.

Third, the MAGTF Deployment and Distribution Operations Centers (MDDOC) cannot replace distribution capabilities and decision authority of our Operating Forces. The MEFs are tasked to establish a MDDOC in *MCO 4470.1A*. The MDDOC is the center of gravity for managing the execution of surface and air distribution in their respective theaters. The MDDOC works in concert with Marine forces and the Joint community to support MAGTF operations. It resides in the MEF and smaller capabilities are being built and deployed with MEBs, MEUs, and SPMAGTFs and are being deployed from the Marine Logistics Groups. The MDDOC and smaller MDDOC capabilities, when forward deployed, leverage organic and Joint capabilities to fill the gaps created by USTRANSCOMs inability to provide reliable, low cost, and low frequency distribution support. The smaller MDDOC, regardless of size, can reach back for support from the DMC, their MEF, or major subordinate command as needed to support their commander's intent. In effect, a web of capability has been built across traditional command and control lines to affect distribution to best support the MAGTF. The Marine Corps must keep this capability and continue to grow it to better manage sustainment flowing through the DTS. Once doctrine is established, the Marine Corps can create training and education plans to ensure our Marines understand the DTS and how to affect it by utilizing the myriad of Marine Corps capabilities positioned throughout the network.

Fourth is operationalizing the distribution management community (MOS 31XX), the true experts at affecting the DTS. Some pieces are in place and others are in process to build a Marine global distribution network capability. The Marine Corps has already added a major, MOS 3102 (distribution management officer) and a master gunnery sergeant, MOS 3112 (distribution management specialist), on MEF staffs, a master gunnery sergeant, MOS 3112 on the DMC staff, deployed distribution management cells on MEUs and SPMAGTFs, added additional structure to supply battalions to support deployments, positioned liaison officers at USTRANSCOM, and placed gunnery sergeants (MOS 3112) at three Fleet Logistics Centers (5th, 6th, and 7th Fleets) to support both Navy and Marine Corps distribution forces afloat. All of these capabilities must be synchronized through doctrine and training to truly become effective managers of a global distribution network.

As the Marine Corps moves forward, it must continue to enhance the capability created to manage the distribution nodes in the DTS. It must develop a strategy and leverage in-transit visibility to give us asset visibility of sustainment flowing through the DTS. This capability will create an effective, flexible, and efficient global distribution network to support MAGTFs and give commanders greater flexibility when employing their forces. MAGTFs will be lighter, lethal, seabased, and capable of operating over great distances. Managing a global distribution network is required to enable MAGTFs of today and the future.

USMC

Amphibious Bulk Fuel Operations

Integrating the executing organizations

by Capt Zack A. Pinkerton & CWO3 Randy L. Banks

There is a vital link between bulk fuel companies, naval surface connectors, and other maritime organizations that provide ship-to-shore movements spanning the entire spectrum of military operations. The relationship between all of these organizations must be fostered and maintained to ensure proficient embarkation and deployment in the execution of amphibious operations. These organizations are an integral part of large-scale amphibious operations and the rapid building of capabilities ashore, yet Joint training between these entities is rarely conducted. Training events and exercises that integrate naval surface connectors with bulk fuel operations within an amphibious landing construct will enhance our amphibious capabilities, facilitate the rapid introduction of bulk fuel storage and distribution on a beachhead, and generate tactics, techniques, and procedures that will guide amphibious operations at the tactical level.

"Logistics establishes limits on what is operationally possible,"[1] yet the critical role that bulk fuel provides in logistical operations has been all but overlooked. In our opinion, Bulk Fuel Company provides the "legs" for the MAGTF in the execution of long-duration operations. These legs come from the Amphibious Assault Fuel System (AAFS), which is the largest tactical fuel system in the Marine Corps' inventory and the least utilized in training:

> The AAFS is used to receive, store, transfer, and dispense fuel to all elements of a MAGTF including distributing to Forward Operating Bases. The AAFS can also receive fuel from offshore vessels, railcars, tank trucks, bulk storage tanks, pipeline/hose line, and drums.[2]

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The AAFS spans a distance of five miles from the beach unloading assembly of the AAFS on the shore to the pump assembly, then to the storage site inland. The full AAFS holds a storage capacity of 1.12 million gallons of fuel with a max capacity of 1.35 million gallons of fuel. The AAFS is comprised of eleven hose reels, seventeen 600 gallon per minute pumps, seven twin agent units (which are utilized to fight fuel fires), twenty-three 50,000 gallon fuel bladders, and twelve 20,000 gallon fuel bladders:

> Fuel is transferred by AAFS hose line or tactical/host nation fuel distribution capabilities to another storage site, or dispensed to individual containers, vehicles, tank trucks, and other fuel systems such as a Forward Arming and Refueling Point (FARP).[3]

When the AAFS is utilized, it is typically broken down into smaller capability sets defined by less storage and distribution capacity and task organized to the associated requirements of

Inflatable storage containers will store fuel to support ground and air operations. *(Photo by SSgt John Jackson.)*

the mission vice being employed as a whole system. Training with the AAFS and building proficiency presents several significant logistical challenges. First, the piecemeal training approach to the AAFS does not provide the reality of the true logistical lift requirements the AAFS presents to planners at all levels:

> The future operating environment will continue to be characterized by national and international challenges that will stretch the employment capacity of the U.S. military and demand a force in readiness with capabilities for a global response.[4]

Additionally, planning and deploying the AAFS solely by way of ground assets presumes that the AAFS will never be introduced into an operation from the sea, further minimizing the true capacity required to employ the system. Slowly through a one-dimensional approach to employing bulk fuel systems, the opportunity to build an amphibious mentality and proficiency is lost. *Expeditionary Force 21* (*EF21*) clearly states that the majority of the challenges and opportunities which lie ahead will be in congested and diverse areas where land and sea meet—meaning the littorals.[5] By developing a continuous and enduring training continuum with naval beach groups (NBG), bulk fuel companies could establish tactics, techniques, and procedures when embarking the AAFS on surface connectors, in turn mitigating the friction of actual operations to the maximum extent possible. These tactics, techniques, and procedures will also ensure bulk fuel is ingrained in the planning process for large-scale operations, which ultimately ensures that fuel reaches the fight in a timely manner.

In the past, the Marine Corps' concept was to deploy as a MEB and fight as a MEF. However, *EF21* challenges to refine that concept and states:

> Deploy as SPMAGTFs and MEUs for steady-state engagement activities and crisis response, composite forward into a MEB for more significant crises and contingencies, expand the MEB into a MEF to fight major operations and campaigns.[6]

As the Marine Corps focuses on refining its lines of effort, it is imperative that we incorporate the *EF21*'s concept of increasing naval integration. Special purpose MAGTF (SPMAGTF) capabilities are limited by the amount of fuel that can be received and stored at a given time, and its longevity to sustain fuel is limited to what the host nation can and is willing to provide.

In order to achieve the goal of *EF 21*, bulk fuel companies must enhance and refine naval integration when planning and conducting training. Opening the door to begin training hand-in-hand with surface connectors will ensure that bulk fuel companies' capabilities to receive, store, and distribute fuel are maintained. This training is imperative in order to provide support to SPMAGTF crisis response units, which are the first to deploy and establish a base of operations in countries that present undeveloped theaters or crisis where traditional lines of movement become unusable. Additionally, bulk fuel companies must prepare themselves to deploy the AAFS on short notice by ensuring tactical fuel systems in all capacities are ready. The best way to accomplish this is with sustained training.

In the past, the Marine Corps' concept was to deploy as a MEB and fight as a MEF.

Reaching out to assault craft units (ACU) and beach master units (BMU) in the employment and planning process establishes critical Joint relationships and Joint training between the prime mover and the landing unit. It also builds a shared experience and knowledge across the two Services, which can be documented and maintained for future operations. All of the aforementioned organizations and bulk fuel companies would then have a common operating picture for the details required to execute an amphibious landing that complements the employment of an AAFS, whether that be on a LCAC or a landing craft utility (LCU). Recent operations conducted between ACU-5, BMU-1, and Bulk Fuel Company, 7th Engineer Support Battalion identified deficiencies in the basics of amphibious planning. Joint live training is the best venue to teach, implement, and

The USNS* VADM K.R. Wheeler *is an offshore petroleum distribution ship that can pump fuel to facilities from up to eight miles offshore. *(Photo by Military Sealift Command.)*

execute these operations. By conducting sustained training, the units will maintain proficiency in amphibious operations planning and understand the lift requirements needed to employ their capabilities.

As stated, bulk fuel companies currently do not work closely enough with the Navy in the execution of amphibious operations. Another key player not mentioned in amphibious operations is Military Sealift Command (MSC). In order to receive fuel from the Offshore Petroleum Discharge System (OPDS), periodic training must be conducted. In undeveloped theaters or developed theaters where port facilities are damaged or destroyed, Joint logistics over-the-shore may be required, thus calling into operation the OPDS. The USNS *VADM K.R. Wheeler* (T-AG 5001) is a government-owned, contractor-operated vessel currently under the charge of MSC. Serving as the sole strategic asset in the delivery of bulk petroleum products, it would seem important to ensure the Marine Corps' sole asset in the storage, management, and distribution of bulk petroleum products (bulk fuel companies) would have the opportunity for sustained training. The time to understand the capabilities and limitations of any piece of equipment is not during the time of execution. Although training exercises are conducted with the OPDS, full integration of bulk fuel companies has not been a priority. The last exercise conducted by the USNS *Wheeler* was off the coast of Dogu Beach, Pohang, Republic of Korea from 12–22 September 2014 with no active duty bulk fuel companies integrated. Exercises such as this present a prime opportunity to integrate bulk fuel companies. The integration cannot only be from an observation standpoint as many operations in the past. Bulk fuel companies must take part in the exercise in order to understand the role they play in the overall scheme of maneuver should the situation arise in an amphibious operation.[7]

There are ship-to-shore operations executed within III MEF through the use of the Amphibious Bulk Liquid Transfer System (ABLTS) and maritime preposition force shipping. All bulk fuel companies have been exposed to the ABLTS and OPDS in some form or fashion; however, there is no plan for sustained training to ensure proficiency is maintained should actual execution be required. Participation in training—whether it be actually taking part in or observing—is typically by luck of the draw or through word-of-mouth. Coordination between all MEFs to integrate all engineer support battalion units into training with the Navy, MSC, and even Defense Logistics Agency–Energy would allow the sharing of not only tactics, techniques, and procedures between MEFs, Services, and agencies but also increase ship-to-shore petroleum distribution proficiency within the Armed Forces.

Marines handle a 4" x 50' suction hose during a field training exercise. *(Photo by LCpl Drew Tech.)*

In conclusion, fuel is the common requirement that makes an amphibious operation and continuing actions that follow sustainable. Bulk fuel operations must incorporate training events and exercises with all organizations that play a role in the movement of fuel from ship-to-shore. In doing so, bulk fuel companies will be integrated in the planning phase of an amphibious landing construct. This will ultimately enhance the amphibious capabilities of all organizations involved in providing fuel for sustained operations. Integrated training will build relationships, generate tactics, techniques, and procedures, and provide the common operating picture to guide amphibious operations at all levels. The capabilities of bulk fuel companies play a vital and irreplaceable role in the ability for an amphibious operation to maintain momentum. The relationships mentioned must be maintained and commanders at all levels must foster those relationships in order to ensure integrated training is established and proficiency is maintained.

Notes

1. Headquarters Marine Corps, *Marine Corps Doctrinal Publication 4, Logistics*, (Washington, DC: 1997).

2. *Marine Corps Tactical Fuel System Technical Manual 3835-OI/1B*, (Washington, DC: November 2009).

3. Ibid.

4. Headquarters Marine Corps, *Expeditionary Force 21*, (Washington, DC: March 2014).

5. Ibid.

6. Ibid.

7. This information is available at: http://www.navy.mil.

The PME Order

Outdated and underutilized

by Sgt Joseph A. Guzman

Marine Corps Order (MCO) 1553.4B (MCO 1553.4B), Professional Military Education, (Washington, DC: HQMC, 25 January 2008), states that commands must

> Establish a Command Professional Military Education (PME) policy that emphasizes the importance of PME integration throughout a Marine's career, timely completion of PME criteria per grade, an environment conducive to the study of war, and identifying and developing those Marines with the capacity for strategic thought.

How can one be in compliance with the most current MCO that was last updated in 2008 when the order itself is so outdated it does not coincide with the most recent Marine administrative messages (MARADMINs) that state what new responsibilities the individual commands are in fact supposed to be ensuring that their Marines complete? More specifically, MARADMINs 458/14, "Marine Corps Quarterly PME Themes," and 521/14, "Updated Enlisted PME Promotion Requirements by Grade and Announcement of Command-Sponsored LCpl Leadership–Ethics and Career Course Seminar," (Washington, DC: HQMC, 15 September 2014 and 16 October 2014, respectively), completely changed the way PME is currently being conducted. PME defines who we are as Marines. It reflects our teachings and values. So what are units doing to ensure that they are fulfilling these?

>Sgt Guzman is the Orders Writing Chief, Personnel, Plans, & Policy Office (3PO), Marine Corps Installations West–Marine Corps Base Camp Pendleton.

The MCO that we currently follow states that unit commanders must establish a PME policy. After speaking with five different Marine Corps commands ranging from a squadron at Marine Corps Air Station Kaneohe Bay, Hawaii to a Marine Combat Logistics Regiment in Okinawa, Japan, I found that only one unit had some form of doctrine establishing a very unemphasized and underutilized policy. The commands seem to be proficient when it comes to ensuring that Marines are completing the new required PME for their grade. There are pros to the MCO that is currently in place that gives commanders the opportunity to be creative with their order or policy letter that establishes what Marines within the unit are responsible for completing. I believe this gives Marines the opportunity to really take control of how they complete their required PME. The cons to this is that it may be difficult to establish a policy with such vague requirements put out by HQMC. This order also does not include some of the most recent MARADMINs that tie in with this order.

What PME policy has the organization established? *(Photo by LCpl Aaron S. Patterson.)*

MARADMINs 458/14 and 521/14 establish new PME policies for the Marine Corps. MARADMIN 458/14 announced that HQMC put in place quarterly PME themes. Commands are supposed to focus on an individual theme for an entire quarter ensuring that the unit has a consistent 90 days of unit PME events in correlation with the HQMC-prescribed theme. Examples of themes include the 70th anniversary of the Battle of Iwo Jima and the lessons and legacy of LtGen John A. Lejeune. There are good points to this MARADMIN including that "Professional discussions should unite Marines of varying ranks." It also goes on to announce that there are a series of resources to support the unit's PME efforts and to support the unit commander. There are also new PME promotion requirements affecting Marines up and down

the ranks. These new requirements should not have just been established via a MARADMIN; there should have been an update to the actual MCO.

These new requirements for promotion are vital to the individual Marine's career. Our current MCO specifically defines what the institution's stance on PME is: "The Marine Corps PME philosophy is that PME is a career long study of the foundations of the military profession." Then why has the MCO not been updated to reflect these changes? This excerpt directly quotes what is expected of us as Marines; combining orders will just make it easier to reflect on what the requirements are when looking for your required PME grades.

If an update was done to the MCO on PME combining these pieces of doctrine, it could redefine the way we study our history, our customs, and our courtesies. It could also redefine how we develop as individual leaders of Marines. A combination would help give commanders more guidance in what is expected of not only the unit but the individual Marine. Commanders are supposed to establish policies for a program that is conducive to the study of war. Simply put, it is getting the Marines back to the basics. If combined and updated as a whole, the ultimate goal of defining why we are and who we are will continue to set us apart from the other Services. Unit commanders are the first level of guidance when it comes to PME. When establishing their policies, they should be sculpting these programs to have the maximum participation, which in turn will make the policy more effective.

A change to the MCO will give unit commanders more guidance in how to mold their programs.

A change to the MCO will give unit commanders more guidance in how to mold their programs. When these programs reach out to the lowest private, we would consider these programs to be working effectively. These programs are designed to emphasize what it means to be a United States Marine, to teach us how to lead with firmness, fairness, dignity, and respect. It will continue to teach us to learn from our past. It will put us as an institution back in touch with what it means to be a Marine.

USMC

Converging Power

A seabased crisis response force

by Capt E. Zach Ota

>Capt Ota is an infantry officer. He has deployed to Iraq with 1st Bn, 7th Marines, 31st MEU and with Regimental Combat Team 5 to Helmand Province, Afghanistan. Capt Ota is a recent graduate of Expeditionary Warfare School.

On 20 August 1990, 18 days after Saddam Hussein's army invaded Kuwait, approximately 15,000 Marines from the 7th MEB assumed defensive positions in Saudi Arabia and curtailed further Iraqi advances.[1] The Marines achieved this feat by employing the equipment and supplies that were prestaged afloat and transported into theater by Maritime Prepositioning Squadron 2 (MPSRON 2). While this method of employing a maritime prepositioning force (MPF) is still valid, recently developed concepts and equipment have increased the capability and responsiveness of prepositioned forces. As geographic combatant commanders (GCCs) demand more crisis response capabilities, special purpose MAGTFs (SPMAGTFs) can be integrated with reinforced MPSRONs to rapidly respond to a wider spectrum of contingencies and facilitate the introduction of a larger force into theater.

Two SPMAGTFs are currently forward deployed to partnered nations to respond to contingencies. SPMAGTF-Crisis Response-Africa Command (SPMAGTF-CR-AF) deployed to Morón Air Base, Spain, in April 2013 to address additional requirements for embassy reinforcement, noncombatant evacuation, and theater security cooperation.[2] The utility of SPMAGTF-CR-AF led to the establishment of SPMAGTF-Crisis Response-Central Command (SPMAGTF-CC-CENT) in September 2014, with the intent to "improve CENTCOM's ability to support theatre [sic] security co-operation events such as exercises, as well as respond to contingencies."[3] Each crisis response SPMAGTF is task organized for its mission, is led by a regimental commander and staff, and has a GCE based around an infantry battalion, a detachment of a combat logistics battalion as the LCE, and an ACE built around a medium tiltrotor squadron of MV-22s.[4] Landbased SPMAGTFs will continue to respond to crises in the absence of additional amphibious shipping.

MV-22s give us increased capability to get support ashore. *(Photo by MCS2 Michael Achterling.)*

Host-nation restrictions, overflight rights, and departure clearances, however, limit the responsiveness of landbased SPMAGTFs. Staging SPMAGTF company landing teams (CLTs) on an MPF seabase can ameliorate this limitation. This MPF can be built around a standing MPSRON that is reinforced with supporting ships from Military Sealift Command (MSC) and a Navy support element (NSE) to offload equipment and supplies. Combined, these assets create a force that is responsive to contingencies and prepositioned for major combat operations.

MPSRONs are the core of an MPF and preposition the majority of the Marine Corps' floating reserve equipment. MPSRON 2 and MPSRON 3, based at Diego Garcia and Guam/Saipan, respectively, each provide the equipment for a MEB and can sustain the force for 30 days.[5] Each MPSRON consists of the following government-owned cargo ships: three T-AK class large, medium speed roll-on/roll-off (LMSR) ships; two T-AKR class LSMRs; and a T-AKE dry/ammunition cargo ship.[6] A mobile landing platform (MLP), which facilitates the ship-to-ship transfer of equip-

ment at sea, is assigned to MPSRON 2 and will be added to MPSRON 3.[7]

Reinforcing the MPSRON with a mobile landing platform–afloat forward staging base (MLP–AFSB) and joint high speed vessel (JHSV) would allow SPMAGTFs to project forces from their landbases and maintain this force at sea. These ships can leverage the sustainment capability of the MPSRON T-AKE to stage and rapidly transit crisis response forces. The MLP-AFSB and T-AKE can stage and sustain a CLT in a seabase, while the JHSV can connect these forces to the main body of the SPMAGTF based on land. Additionally, an NSE detachment, smaller in size and scope than a conventional MPF NSE, can sustain the seabase by transferring cargo and supplies from MPSRON ships to the response forces. With this task organization, contingency response forces of the SPMAGTF and MPSRON are capable of executing and sustaining contingency missions such as humanitarian assistance/disaster relief, noncombatant evacuation, and embassy reinforcement.

The MLP–AFSB and the T-AKE would seabase crisis responders and sustain operations ashore for limited durations. MLP–AFSBs, variants of MLPs optimized for flight operations rather than transferring cargo at sea, liberate SPMAGTFs from the limitations of host-nation landbases. Each MLP–AFSB berths up to 250 embarked personnel, spots two CH-53E-equivalent helicopters with storage for an additional two, and has hangar space for aircraft maintenance.[8] AFSB (Intermediate) 15, formerly USS *Ponce* (LHD 15), preceded the MLP–AFSB and provided a persistent platform for helicopters and small boats in Central Command for 171 days in fiscal year 2013 (FY13).[9] AFSB (Intermediate) 15 also validated the manning concept of integrating active duty sailors with civilian mariners (CivMars) to operate a U.S. Navy vessel and maintain limited combat capabilities.[10] Using the same employment method as AFSB (Intermediate) 15, MLP–AFSBs can serve as a seabase for a contingency response force from SPMAGTFs.

Aboard the MLP–AFSB, forward command elements of the SPMAGTF and MPSRON can maintain situational awareness and serve as an advanced echelon for larger operations. A CLT and an aviation detachment of four CH-53Es can stage on the MLP–AFSB and form the maneuver force of the SPMAGTF. Aviation maintainers and a medical detachment sustain this maneuver force and repurpose the MLP–AFSB as an intermediary support base.

Lewis and Clark-class T-AKEs complement the capabilities of the MLP–AFSB and are vital to sustaining the landing force in the seabase and ashore. T-AKEs provide the majority of supplies to the MPF and can selectively unload specified cargo through their organic cranes and a flight deck capable of launching and recovering MV-22s.[11] T-AKEs can also embark approximately 144 personnel in addition to the crew.[12] USNS *Sacagawea*, T-AKE 2, embarked 96 Marines with 4 HMMWVs, and sustained the landing force throughout their 10-day theater security cooperation mission.[13] MPSRON T-AKEs, augmented with SPMAGTF landing support specialists and NSE cargo handlers, could similarly sustain contingency forces by selectively offloading cargo at sea or ashore and through vertical replenishments. This capability allows the CLT to operate independently for limited durations and enable the introduction of the remaining SPMAGTF from landbases.

The MPSRON/SPMAGTF team could also facilitate larger MPF operations ...

The JHSV is an essential addition to the MPSRON that could connect the CLT with the main body of the SPMAGTF. With a range of 1,200 nautical miles, the JHSV can transport 312 personnel and 20,000 square feet of cargo at a top speed of 35 knots.[14] Alternately, the JHSV can be configured to embark 104 personnel for up to 14 days.[15] With a flight deck that that can accommodate launching and recovering CH-53Es, the JHSV can even augment the MLP–AFSB in permitting sea states.[16]

The MPSRON/SPMAGTF team could also facilitate larger MPF operations by establishing a standing command structure and prepositioning key enablers. During contingencies, the forces aboard the MLP–AFSB and T-AKE can constitute an advanced echelon for a larger MPF deployment. The forward elements of the SPMAGTF and MPSRON contain the requisite personnel to rapidly constitute survey, liaison, and reconnaissance parties (SLRPs) and self-transit to an arrival port or beach identified for unloading the MPF.[17] The embarked CLT, using rigid hull inflatable boats and CH-53Es on the MLP–AFSB, can secure seaward and landward approaches to offload locations until the arrival of maritime security forces.

While the JHSV ferries SPMAGTF personnel from host-nation bases to reinforce the forward elements, the remaining MPSRON LMSRs can transit to designated arrival and assembly areas and facilitate the arrival of a MEB. LMSRs have the largest cargo capacity of MPSRON ships and lift the bulk of prepositioned equipment. Two LMSRs in each MPSRON carry a MEU-sized portion of prepositioning equipment, which allows the MPF to respond to contingencies with a scalable force.[18] The MEU-loaded LMSRs also serve as the primary and alternate flagships for each MPSRON and facilitate the command and control of follow-on forces through enhanced communications equipment.[19] Additionally, *Bobo*-class T-AKs are capable of embarking 96 personnel from the landing force and *Bob Hope*-class T-AKRs are capable of embarking approximately 125 landing force personnel.[20] The SPMAGTF and MPSRON staff, embarked on these flagships, can function as "a bridging unit to command and control follow on force or fall under the command of an arriving unit."[21] Concurrently, SPMAGTF aircraft can transport offload preparation parties to the LMSRs to facilitate the offload of the MPSRON. Cumulatively, these forces set the conditions for the arrival of a fly-in echelon from a larger force.

Admittedly, several challenges must be overcome before establishing the MPSRON as a persistent crisis response force. While the Marine Corps and MSC regularly employ MPFs in training exercises, SPMAGTFs and MPSRONs must refine command and control measures before integrating for sustained operations. Integrating SPMAGTF and MPSRON staffs during predeployment training can build working relationships and establish planning processes. Also, associating the MPSRON/SPMAGTF command elements for 12- to 24-month rotations would create continuity for the force and reinforce working relationships. Additionally, upgrading the tactical communications networks and command and control spaces aboard the MLP-AFSBs enhances the interoperability of MPSRON/SPMAGTF command elements.

While MPSRON ships are not designed to operate in hostile waters alone, this risk can be mitigated through the task organization of the force. With crisis response forces embarked, the MPSRON/SPMAGTF MPF would be more survivable and versatile than its conventional counterpart. The embarked CLT can provide the MLP–AFSB and T-AKE with limited self-defense capabilities such as shipboard security and conducting visit, board, search, and seizure missions. Embarked helicopters can extend the range at which MPSRON ships can identify surface threats and, with Navy MH-53s substituted for CH-53s, the MLP–AFSB could even host a degree of anti-submarine capabilities for the seabase. While the MPSRON/SPMAGTF and its conventional counterpart would both rely on surface combatants for security in hostile environments, SPMAGTF forces increase the survivability of the MPSRON and enable its deployment in a wider range of conflicts. This synergistic survivability capability allows MPSRON/SPMAGTFs to operate independently in contingency environments and frees ARG/MEUs to operate in higher threat environments. In areas where the likelihood of contingency missions is high, but the transition to major combat operations could be rapid and severe, the MPSRON/SPMAGTF can be a vital force multiplier.

While landbased SPMAGTFs currently augment GCC's contingency response capability, allowing our SPMAGTFs to remain land locked limits their responsiveness and threatens to make Marines a redundant capability. Employing SPMAGTFs as an amphibious force within the MPF reinforces the Marine Corps' unique contribution to national defense and better prepares the force to operate across the spectrum of conflict. While the 7th MEB and MPSRON 2 demonstrated the value of the MPF in major combat operations during the early days of Operation Desert Shield, SPMAGTF and MPSRON teams can resonate the Navy and Marine Corps' value as the Nation's force-in-readiness.

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PT Conundrum

Isolation training is not a healthy way to train

by Pvt David P. Johnson

>Pvt Johnson is an 0111 (administrative specialist) assigned to Headquarters and Support Battalion, Marine Corps Base Camp Pendleton.

Early one spring morning, Marines gather around their platoon sergeant to prepare for the day's physical training session. Once all of the Marines are present, he begins briefing them on the plan of the day. He describes how the physical fitness test (PFT) is approaching and emphasizes the need to start focusing efforts on achieving the highest score possible. To do this, he tells the Marines they will be running and doing pull-ups every day.

PFT season is upon us, and Marines are preparing both mentally and physically. Based on my observation, a large number of Marines are placed on a light duty status not long after the changeover for different seasonal training. There could be many reasons for this; however, I believe there is too much emphasis on biseasonal physical training or one dimensional training of just simply running for unit, section, or individual physical training. During the PFT and combat fitness test (CFT) semiannual periods, almost all physical training focuses on that semiannual fitness test to the exclusion of the other. This training philosophy makes the training at the beginning of each season more difficult than is necessary. The abrupt change can also easily cause injuries, undermine morale, and ruin combat effectiveness.

Physical training regimens have been done this way in the Marine Corps for so long that no one thinks anything of it. It has been done this way since the first recorded history of Marine Corps physical fitness tests in 1908. The first fitness test was directed by President Theodore Roosevelt when he ordered that staff officers must ride horseback 90 miles and line officers walk 50 miles over a three-day period to pass and prove physical fitness for combat. A test started in 1956 included chin-ups, push-ups, broad jump, 50-yard duck waddle, and short distance running. The first test for women was started in 1969. It consisted of a 120-yard shuttle run, vertical jump, knee push-ups, 600-yard run/walk, and sit-ups. This way of doing the fitness test has slowly morphed over time, adapting to the needs of the necessary fitness levels of Marines. As warfare has changed over time due to technological advances, weaponry, and travel, so too must a Marine prepare and be physically ready to deploy.

In the beginning, the PFT was an annual event for which Marines trained year round. It then became a biannual event, and in 2008, Commandant Gen James T. Conway implemented the CFT, a combat-oriented fitness test as a complement to the PFT. When the CFT was incorporated as a tested physical event, Marines applied the same physical training philosophy as they did for the PFT: isolation training to that specific test. Isolated training had worked for so long while training for the PFT; why wouldn't it work for the other test?

Training for each biannual fitness test has proven more difficult than it needs to be because the body is trained in just one way. This is called isolation training, which causes muscle imbalances, injuries, and lack of motivation. Extreme examples are gym enthusiasts who work only on their arms and chest. Those muscle groups have become used to being impacted or stimulated; however, the remaining muscle groups are sorely lacking. If that same individual

The PFT is a semiannual event, but Marines shouldn't be subjected to "focused" physical fitness training. *(Photo by LCpl Jodson B. Graves.)*

attempted to work on the undeveloped muscles one day at the same pace as the developed muscles, his chances for injury skyrocket, and he has also failed at the Marine Corps concept of whole-body preparation and fitness. The Marine Corps goal is for every Marine of every MOS to achieve a balanced physical fitness of strength, speed, and agility in order to be prepared for entering the combat environment. Being physically fit upon entering the combat zone allows the mind to deal with the metal stresses associated with combat zone duties.

Isolated training can cause potential injuries by suddenly changing the workout routine and the equipment—such as the footwear—used. Training is different while wearing tennis shoes than it is while wearing combat boots. That one factor can affect any muscle, tendon, or bone as well as place undo strain on the body. Once injured, the Marine becomes noneffective for combat due to light or limited duty, and if injured badly enough, is evaluated under the Physical Evaluation Board for possible medical discharge, which then turns that Marine into a long-term noneffective.

Isolated training is definitely not the best method of training, as it goes against the current policy of being combat ready. Marines at any given time of the year should be physically fit, ready to achieve their normal training score for either PFT or CFT, and upon a moment's notice, be physically capable of deploying for war. According to *Marine Corps Order 6100.13, Marine Corps Physical Fitness Program*, (Washington, DC: HQMC, 1 August 2008), Chapter 1, Part 3, Subsection D: "Physical conditioning programs should not be developed solely toward preparation for the PFT or CFT."

The best resolution for this issue would be to not train for either specific season but incorporate training for the other season as well. Training for both tests should be conducted all year round, with Marines striving to improve upon their last official score. Marines in positions of leadership could formulate weekly or monthly calendars with cross-training for both the PFT and the CFT. Most Marines conduct physical training three to four times a week with other Marines in their section. During each training season, a balance must be applied that allows leaders to train their Marines with the whole-body training philosophy, not one dimensional or isolated.

In one week, a whole-body training regimen could be made based on the number of Marines in the section, available training venues, and age. During the biseasonal time frame for the PFT, Mondays, Wednesdays, and Fridays could be devoted to distance and interval running, pull-ups, and abdominal exercises. Tuesdays and Thursdays could be strength and endurance training. During the time frame for the CFT, those days could be switched. The Marine Corps has also adopted the high intensity tactical training (HITT) program. The program's primary purpose is to enhance operational fitness levels and optimize combat readiness and resiliency for the United States Marine Corps. This program now has mobile phone applications that provide daily workouts. Two, maybe three times a week, HITT could be utilized for daily PT sessions. The goal is for all Marines to adapt to performing total body work outs instead of focusing physical training on just passing events on the CFT/PFT.

While it's understandable why Marines put so much effort into something, conducting isolation training is not a healthy way to train. It makes transitions between the seasons physically and mentally difficult. It is hard for Marines to change from something they have always been used to doing. Muscle imbalances are created during isolation training, which can lead to injuries in the musculoskeletal system. While I want to make clear the positive side effects of this training, my intent is not to get rid of either the CFT or the PFT. I merely want to change the mindset of our leaders in regard to proper physical training methods.

USMC

Personnel Changes Required

We can't afford business as usual

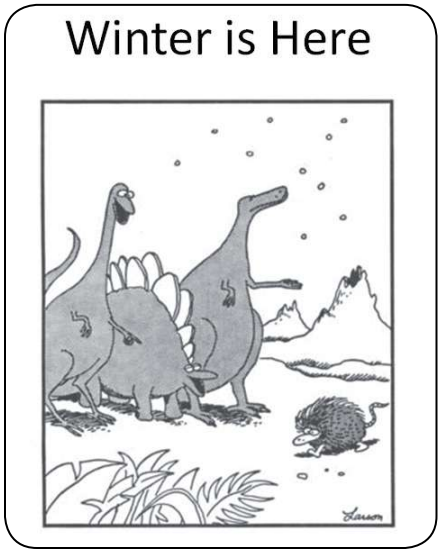
by Col David Ready, USMCR

A budgetary winter has come and unless we Marines adapt, we will be in trouble. So how do we change? Do we cut back on the number of yellow sticky pads each Marine may use? Do we have more two-year unaccompanied tours for first-term Marines to Okinawa? (Who thought up that great idea?) Do we do more with less?

I, for one, do not think this last option is possible as every decent SNCO and officer I know already works seemingly interminable hours and believes that if we continue to try to do everything, we will end up with mediocrity. So do we try something else? Do we put behind ourselves tactical nickel and dime ideas, and do we dare to think in a revolutionary fashion?

Indeed, we must adopt revolutionary thinking. I put forward to all Marines that we must adapt lest we lose our vital relevancy to our Nation. I advocate focusing on what we must do, ensuring that we do it better than all others, and leaving the rest off. Let that excess wither in the cold rays of a long budgetary winter, and let us carry on with our forcible entry expeditionary capability and select few other missions designated by the President and Congress. Yes, such a focus will take a little creative thought. But more than that, it will take vision and courage. It will take saying "no" to a lot of powerful people both within and without the Marine Corps. But I, for one, pray our leadership is up to the task. I know that if they are, the iron majors and sergeants major of the Marine Corps will make it happen.

>Col Ready is a student at the Marine Corps University's Strategy and Policy Class. He is also a member of the faculty at the National Defense University.



It's later than we think. *(Cartoon by Gary Larson.)*

We should focus on this mission. Anything that supports this mission should be emphasized.

In business (full disclosure: I am a reservist and a businessman), when times look lean, successful businesses look inward and determine what is necessary to succeed. Those businesses that do not adapt to such new conditions perish. I assert that the same principles apply to the Marine Corps.

So what do Marines do? What are we?

We are our Nation's 9-1-1 force. We go to every clime and place to fight and win our Nation's battles in order to achieve political objectives. We should focus on this mission. Anything that supports this mission should be emphasized. Anything that does not, leave off. *Any nonvalue adding activities are parasitical and drain our ability to do what we must do.*

What do I mean by nonvalue adding ativities? Well, think back to our former Commandant Gen Alfred M. Gray's dictum: "Don't paint rocks." That is, do not waste time on tasks that really do not matter.

For those more procedurally or linearly minded, a good way to think of value adding is to make a diagram of what it takes to produce a product or service and then diagram each needed step in such a process until your desired output is attained. If something is not one of those needed steps, it is extraneous to the core mission and should be looked at very carefully. As an example, think of what it takes to make a basic Marine and then think of the necessary steps for that basic Marine to attain a specific MOS and then join the Fleet Marine Forces. There are not a lot of excess steps in this value chain. I assert that we should look to such a process as

a paragon for what we should do in all of our endeavors. That is, look inward at all we do and ask ourselves: Does this add value to our core missions? If not, seriously consider dropping such activities.

To understand what is truly needed, ask yourself how does an excellent squad operate? What does it need to do? Is it dedicating all of its resources to this task? A platoon? What about a company? Battalion? Regiment? MEF? Base headquarters? Marine Forces Command? Marine Forces Reserve? Headquarters Marine Corps?

I suggest to you that one will find that most smaller units, probably up to the battalion and at least some or most regimental levels, are done at or close to consummate excellence. Yes, there is waste, but my guess is that much of that waste is imposed by higher headquarters. But when we get to the higher levels, the bureaucracy bloats and one will find significant nonessential activities and extra bodies.

I had the pleasure to converse with LtGen Paul K. Van Riper for a few days in May 2015. He reckons that a unit's staff effectiveness is an inverse square ratio of staff size. That is, one person can get one unit of efficiency. But it takes 4 staff to get 2, 9 staff to get 3, and 16 to get 4, etc. Given this, our never-ending desire to incrementally "improve our performance" has burdened us with a very heavy personnel and logistical tax. A bad thing? Yes, probably. But now this is also a good thing because we can cut it off and save our core activities. We have grown fat, it seems. But if we shave the fat, we can regain our lean, muscular, and agile purposefulness and ferocious reliability.

So, how do we fix this? How do we engage in revolutionary change? Due to our nature, this revolution must start from the top. Our generals must look to the future and realize that if we act proactively now, we can retain and perhaps advance our core capabilities. If we just react, it will come down to trying to do more with less and that is a recipe for mediocrity. So, I humbly suggest that our Commandant come out with some leadership direction somewhat akin to this:

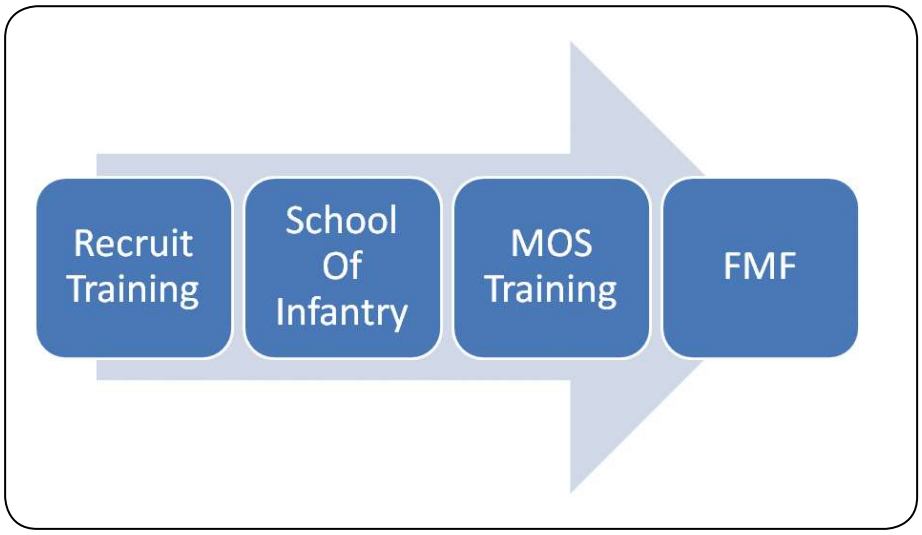


Figure 1. Value added chain example: making combat ready Marines.

Marines, we are facing tough fiscal headwinds and will be doing so for the foreseeable future. I want you to look inward at your units and see what we are doing that we do not need to be doing, and get rid of all activities and personnel that don't lend to our ability to conduct forcible entry combat operations. I want each battalion and regiment to give me recommendations on how to cut its total expenditure—including personnel costs—by 5 percent, each division by 10 percent, each MEF by 20 percent, and each headquarters unit by 25 percent. And look at each and every activity you do, and if you think it does not add to your warfighting mission, let me know. Make it happen.

Each unit would then stand up an operational planning team (OPT). These OPTs would be done at the unit level by unit personnel. They would rigorously examine the unit's value chain and figure out what activities or personnel are not relevant to its core mission of conducting or preparing others to conduct expeditionary warfare. We would not just be looking at a unit's operating budget but its direct and indirect costs relating to personnel and activities. Indeed, the unit's budget itself need not be touched unless the unit is spending money and/or time on nonessential activities.

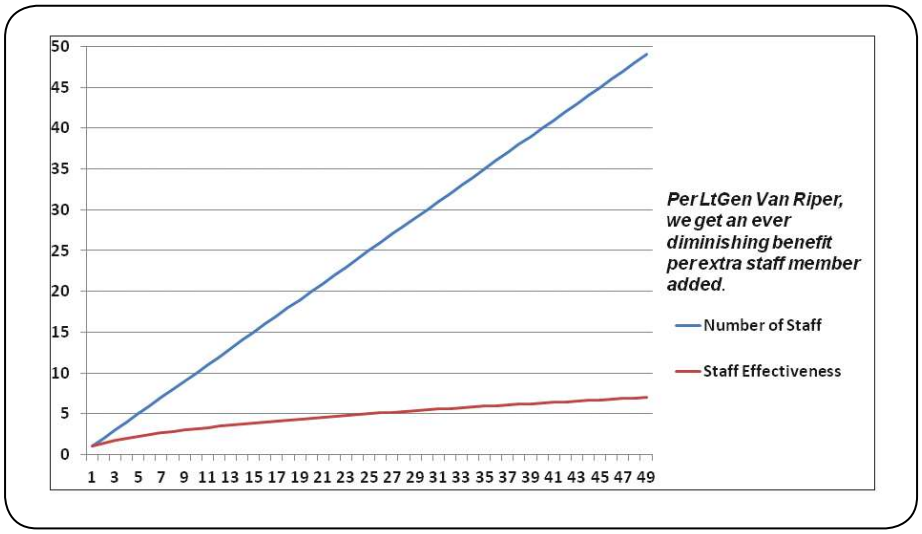


Figure 2. Inverse square root staff effectiveness.

But, nothing can be sacred. SAPR (sexual assault prevention and response) training? Yes, we need to look at it. Suicide awareness training? Yes, we need to look at it. Family readiness officer? Yes, we need to look at it. The G-7/8/9/10/11, etc? Toys for Tots? Do I really need that contractor? That extra communications or intelligence (etc.) SNCO or officer? That civilian Marine? It is not enough that a unit likes having the activity or personnel; it has to demonstrably add value to that unit's core mission. There should be give and take supported by rigorous data-driven discussion. Here, data driven means we have to show the improved output in an unfiltered and demonstrable fashion. If we cannot do that, we probably do not have an essential activity.

These OPT outputs would then be passed up the chain in an unfiltered fashion for senior leadership review. Items, activities, or personnel that are mentioned by a significant portion of units are *recurring themes* and should be at the top of the review list, and now that the subordinate units have had the moral courage to tell senior leadership what they are wasting time or costs on, I suggest that it is then senior leadership's moral and fiduciary duty to make some tough cuts. Or, in the case of some activities, take the fight to their leadership and say something like,

> Sir, we are not conducting XYZ training of every Marine every year because we do not have enough time to conduct our core missions, and we have no indication that the time we have spent on XYZ training has proven a benefit to the Corps. I suggest, sir, that you consider allowing us to incorporate this XYZ training into our basic Marine, NCO, and officer curricula and provide guidance to our commanders and sergeants major to ensure that all Marines look out for one another's well being, to include XYZ issues.

... we need to focus everything on what we can do better than anyone else ...

The natural extension of such an approach is to have our senior leadership itself look across our entire allocation of resources and personnel and perhaps select certain programs for curtailment. From their broader perspective, they may be able to see aspects of our expenditure that unit-level operations might not be aware of. Once again, nothing can be above review. Do we really need the Joint Strike Fighter at current programmed levels? How many tanks do we need? Must they be active duty? Do we need a USMC component at XYZ-COM? Some insightful thinking here could really help protect our core missions. And clearly, too, the Marine Corps' Office of Legislative Affairs would need to be closely aligned in these processes as if done without their integral involvement we would stand to make unneeded enemies.

So to recapitulate, the USMC is facing austere fiscal times for the foreseeable future. To be relevant, we need to focus everything on what we can do better than anyone else: fight and win our Nation's battles in every clime and place. If an activity or personnel position cannot conclusively be shown to add value to this warfighting mission, it ought to be subject to careful review. We need to cut out the fat. Leadership should set goals and solicit ideas, units should offer solutions, and then leadership ought to have the courage to execute. Finally, by focusing on our core missions by cutting those activities that detract therefrom, we will ensure that we are ready to meet our Nation's needs and thereby continue our vital relevance for which Marines have fought and died for these past 240 years.

The Performance Evaluation System

Multisource feedback and the Marine Corps

by Capt Jeremiah R. Adams

In his widely read book, *Good to Great*, Jim Collins makes a keen observation about personnel management by noting: "The old adage 'People are your most important asset' turns out to be wrong. People are *not* your most important asset. The *right* people are."[1] This also applies to the Marine Corps as its personnel management is existentially crucial. *MCDP-1* explains:

> Since war is at base a human enterprise, effective personnel management is important to success. This is especially true for a doctrine of maneuver warfare, which places a premium on individual judgment and action.[2]

Thus, the regular frequency with which the *Marine Corps Gazette* publishes articles on personnel management concerns is no surprise. More specifically, in the last two years there has been a trend calling for the Marine Corps to replace the fitness report system with a multisource feedback model more commonly referred to by the trademarked term "360-Degree Feedback."[3] This assertion needs more careful consideration. The Marine Corps should utilize multisource feedback to develop and retain the best leaders but not as a replacement to the fitness report.

>Capt Adams is an infantry officer who has deployed in support of Operations Iraqi Freedom and Enduring Freedom and the 31st MEU. He wrote this article when he was a student at Expeditionary Warfare School. Capt Adams is currently assigned to 3rd Bn, 4th Marines, 29 Palms.

... there has been a trend calling for the Marine Corps to replace the fitness report system ...

Individual judgment is critical in maneuver warfare. *(Photo by PFC Maxton G. Musselman.)*

Multisource feedback in various forms has been in vogue for almost 20 years within business and industry.[4] Due to widespread and diverse implementations, defining the terminology is important. In scholarly literature, the concept has taken many names including multisource feedback, multirater feedback, full-circle feedback, and upward feedback.[5] The nuances in the terms are subtle, but the basic concept is that an individual receives performance feedback from other sources in addition to his direct supervisor. Full-circle or 360-degree typically includes feedback from customers and suppliers in addition to superiors, peers, and subordinates, and applies more to the services and manufacturing sectors. Upward feedback focuses on subordinates providing performance feedback to their supervisors or managers. This article will concentrate on multisource feedback defined as a process whereby individuals receive performance feedback from superiors, peers, and subordinates.

As a concept, multisource feedback has deep roots.[6] *The Handbook of Multisource Feedback* offers a detailed account of the history that led to the present

obsession with multisource feedback.[7] Since the days of the industrial revolution, industrial psychologists have been exploring "better ways to hire and train employees as well as measure performance."[8] For most of the 20th century, the supervisor was the near "universal choice of rating source," but as early as 1919, a concept called "mutual rating" was in limited use.[9] Mutual rating was much like modern day multisource feedback where individuals receive rating feedback from subordinates and supervisors.[10] Curiosity with respect to multisource feedback continued to germinate through the middle of the century, and by the mid-1980s,

> The push for quality control and the continuing shift from a manufacturing economy to a service economy helped to direct increased attention toward customer satisfaction ... characterized by active involvement at all levels of the organization and a high level of measurement and feedback.[11]

In 1993, *Human Resource Management* cemented the emerging concept with a "unifying" platform in a special edition on 360-degree feedback, and by 1998, "an estimated 90 percent of Fortune 1000 firms use[d] some form of multisource assessment."[12] Currently, companies remain invested in various multisource feedback mechanisms, and the concept has solidified into much more than a fad.

Within the Marine Corps, discussion of multisource feedback first surfaced in 2002 as an idea in the *Marine Corps Gazette* when Col Thomas X. Hammes, USMC(Ret), a frequent contributor, recommended replacing the fitness report with multisource feedback.[13] Hammes' article was the catalyst for four additional articles making essentially the same recommendation, three of which the *Gazette* published in the last two years.[14] The consensus among these authors is that fitness reports remain fundamentally flawed because the reporting senior (RS) and reviewing official (RO) only observe the Marine reported on from one perspective.[15] Maj Chris Niedziocha reveals the reality that it is "not uncommon for an RS to ghost write RO comments."[16] The result is that "the [fitness report] has one to one and a half people observing and reporting on a Marine's performance."[17] Capt Brian Chadwick captures the concern that the current system could incentivize a leader to "subordinate the interests of his Marines for those of his superiors for the express purpose of advancing his career."[18] Finally, Hammes summarizes that "a less than competent leader only has to fool two people to succeed."[19] Though these authors advocate the replacement of the fitness report, their target is not really the output but rather its inputs. Their identification of the problem is valid, but the offered solution is not.

There is reason for excitement about multisource feedback, but the 360-degree advocates in the *Gazette* failed to uncover the three decades of lessons from the business world. Empirical academic study of multisource feedback lagged behind the rapid expansion of the concept in the 1990s, which resulted in implementation without solid understanding of the implications. The academics caught up and now there are more empirical studies of best practices tempering the consulting firms promoting buzzword deep concepts that inevitably accompany any fad in the business world. Understanding this research is an imperative for effective incorporation of multisource feedback within the Marine Corps.

There is reason for excitement about multisource feedback, but the 360-degree advocates in the* Gazette *failed to uncover the three decades of lessons from the business world.

The issue of efficacy is usually the first question researchers ask. W. Harvey Hegarty's 1974 study is the "first widely cited study" noting improvements in performance following feedback from subordinates.[20] Further research has since reinforced this finding many times over. Himanshu Rai, a researcher himself, references four empirical studies linking "360° feedback to enhanced employee performance."[21] In his own studies, Rai investigates further to contend that "improved interpersonal communication, finer leader–member exchange quality, more perceived organizational support, and better quality of working life," all fostered by multisource feedback, directly correlate with the observed performance improvements.[22] Similar to Rai's research, Edwin Locke and Gary Latham showed in 1990 that the "feedback alone is not the cause of behavior change;" setting goals in response to the feedback is the true impetus for change.[23] Researchers assess multisource feedback as especially effective in improving the performance of individuals in two categories: those initially receiving negative feedback, and those who are mentored through appropriate goal setting related to the feedback.[24] The research reveals that what matters most is the individual and institutional response to the feedback. Key factors of an appropriate response are goal setting and accountability.

Companies that implement multisource feedback do so for one of two objectives: developmental or appraisal.[25] Developmental usage seeks "to support behavioral change" of the evaluated individual, whereas appraisal usage seeks "to provide information for merit-pay or promotion decisions."[26] Both have examples of success, but there are more advocates for developmental usage.[27]

The culture of the organization and human psyche have implications that need consideration before implementing any program. Leanne Atwater and David Waldman specifically identified "that when individuals believe the ratings will be used for performance appraisals, they may alter their ratings. Generally, the ratings are more favor-

We need to know the effectiveness of multisource feedback. *(Photo by LCpl Caitlin Bevel.)*

able."[28] Furthermore, in some cases supervisors "try to get higher ratings by catering to subordinates—at the expense of meeting organizational goals."[29] This distinction between developmental and appraisal contributes to the misguided arguments in the *Gazette* wishing to abandon the fitness report. The fitness report is not a comprehensive personnel management tool. It is simply a performance appraisal tool that, as outlined in the *Performance Evaluation System* order, "supports the centralized selection, promotion, and retention of the most qualified Marines."[30] Instead of performance appraisal, it is the developmental aspect of personnel management that the Marine Corps would enhance by implementing multisource feedback.

Before implementation, the Marine Corps also needs to examine the attempts of sister Services to incorporate multisource feedback. The Army currently possesses an Army Knowledge Online-based tool that allows leaders to solicit and receive feedback from subordinates and peers.[31] This spawned from a successful pilot program begun in 2004.[32] The program is strictly for developmental purposes but lacks accountability. The individual soliciting feedback is the only one that sees the feedback, so there is no mechanism to incentivize the individual to alter his behavior, set performance goals, and remain disciplined in achieving those goals.

The Navy has used multisource feedback for development of its senior executive service professionals and flag officers for over ten years.[33] It then implemented a pilot program for the surface warfare community between 2004 and 2007 and a parallel but independent study within Submarine Squadron 20 around the same time.[34] Both failed in permanence due to "institutional resistance—mainly to the prospect of officers being evaluated by their enlisted."[35] The principle lesson is that—just as Marine Corps doctrine admonishes—"trust is an essential trait among leaders."[36]

Considering the lessons learned from sister Services and the cues from private sector best practices, the Marine Corps' multisource feedback program should start small, focus on mentoring, and emphasize accountability. The Marine Corps would only use the program for developmental purposes. There would not be a direct association with the appraisal focused fitness reports and the feedback would never go beyond the immediate supervisor of the ratee (Marine being given feedback). Using a pilot program for an isolated initial implementation would assist in identifying Marine Corps specific challenges and mitigating impacts. The logical population for initial implementation is commanders. Using battalion- or company-level commanders would confine feedback responses to officers and senior enlisted. This ensures a more mature participation in the pilot program phase. Each ratee would receive two peer feedbacks and three subordinate feedbacks similar to Hammes' suggestion in 2002. However, the superior would not participate in the formal feedback survey. The peer and subordinate feedback would be sent to the superior through electronic means preserving anonymity. The superior would meet with and mentor the ratee through the feedback to ensure that the ratee sets appropriate goals for improving identified issues.

Considering the lessons learned from sister Services and the cues from private sector best practices, the Marine Corps' multisource feedback program should start small, focus on mentoring, and emphasize accountability.

This construct provides a dedicated opportunity for constructive mentorship ultimately aimed at improving the ratee as a leader. Furthermore, the ratee is held accountable to the superior for attaining the feedback-driven goals by the very nature of the command relationship.

Indirectly, this recommended construct has the effect of better informing the RS to the true nature and capabilities of the ratee because the superior *is* the RS. This addresses the original concern raised in the *Gazette* that the

RS has a limited perspective on the overall performance of a Marine reported on. In a complementary manner, the fitness report plays the appraisal role and multisource feedback the developmental role, thereby enhancing overall Marine Corps personnel management. Organizational advocacy would belong to the Lejeune Leadership Institute at the Marine Corps University so that its forthcoming Marine Corps Leadership Development Program could incorporate multisource feedback.

Admittedly, the recommended construct looks a lot like just another counseling or mentoring program. Many will argue that multisource feedback simply formalizes something that Marine leaders should already be doing informally and unprompted. After all, "know yourself and seek self-improvement" and "know your Marines and look out for their welfare" are at the heart of the Marine Corps' leadership principles.[37] However, if the informal approach to counseling and mentoring is so successful, why does the Marine Corps need to repeatedly assess and reconfigure its counseling programs? It is time for candid honesty. Marines are human and require structured accountability. Multisource feedback would provide leaders increased self-awareness to drive continual development. Superiors would possess a more holistic understanding of their subordinates to foster mentorship. Fitness reports would inherently appraise performance more accurately. All of which would contribute to a system that develops and retains the best leaders and ensure that the Marine Corps doesn't just have people, but the *right* people.

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Promoting Aviation Maintenance Marines

Correcting perceptions

by Capt David R. Haines

>Capt Haines is an MV-22 Pilot and is currently serving as the Quality Assurance Officer, Marine Medium Tiltrotor Squadron 363, MCAS Miramar. He has deployed with the 31st MEU and with Special Purpose MAGTF-Crisis Response-Central Command. Capt Haines has worked in squadron maintenance departments as a flightline officer in charge, airframes officer in charge, and quality assurance officer.

We have to provide career enhancing opportunities. *(Photo by SSgt Keonaona Paulo.)*

The Marine Corps promotion process usually rewards outstanding, well-rounded Marines, but due to unique circumstances, too many of the best aviation maintenance Marines are having their careers slowed or even stopped. There are two causes. First, constraints specific to aviation maintenance result in the best Marines being held out of career enhancing opportunities in order to assist squadrons in the short term, while less well-regarded and less essential Marines end up filling open slots in PME (professional military education) courses and "B" billets. Second, senior Marines serving on promotion boards are unfamiliar with the measurable achievements of high performing aviation maintenance Marines and favor those aviation maintenance Marines who have attended resident PME courses and completed "B" billets because they appear more like promotable ground Marines. The purpose of this article is to strengthen Marine aviation by familiarizing potential board members with aviation maintenance specific achievements, explain why some aviation Marines may not have the PME courses or "B" billets that would be expected of Marines of their caliber in other MOSs, and to encourage aviation maintenance leadership to make more opportunities available to their high performing NCOs.

The three most common quantitative achievements likely to appear in fitness reports are collateral duty inspector (CDI), collateral duty quality assurance representative (CDQAR), and weapons and tactics instructor (WTI). CDI is the precursor to CDQAR, and there are several instructional qualifications besides WTI that also indicate sound judgment and potential. Marines who reach the highest levels of maintenance qualification have consistently demonstrated outstanding leadership, sober judgment, and above average instructional and maintenance abilities. A top performer will reach the first higher level qualification, CDI, around the end of their first enlistment. In basic terms, a CDI is required to supervise any maintenance evolution. He is the first safety check and ensures maintenance is performed safely and in accordance with applicable directives. A CDI is also responsible for instructing less qualified Marines and signs off on their continuing maintenance education. They mentor junior Marines in the performance of their primary MOS and are part of the selection process for those Marines who display the judgment, maturity, and leadership potential to become CDIs.

The step above CDI is CDQAR. Generally, Marines are expected to

reach CDQAR in their second enlistment. They are essential to the maintenance process and have reached the highest level of technical expertise in their maintenance MOS: airframes, flightline/power line, avionics, ordnance, or aviation life support systems. A CDQAR has demonstrated superior maturity, judgment, instructional ability, and leadership. Qualification as such is essentially required for division leadership in a mature MOS. CDQARs are the last safety check after major or critical maintenance is performed and are also responsible for the safe conduct of maintenance. They have the authority to determine the overall safety of aircraft and flight-related equipment and are trained to interpret the maintenance manuals regarding acceptable levels of parts degradation. CDQARs are responsible for selecting and instructing upcoming CDIs and are eligible to work in the quality assurance division, the work center responsible for the proper conduct of squadron maintenance and ultimately the final authority on whether squadron aircraft are safe to fly. Additionally, they conduct investigations of parts failures and make recommendations to program engineers regarding possible technical improvements to the aircraft or maintenance practices. Outstanding CDQARs may pursue qualification in an additional MOS, and those who become multi-system qualified, in both airframes and flightline, for example, are exceptionally useful when squadrons try to minimize personnel and maximize maintenance efficiency. Not surprisingly, CDQARs and CDIs tend to be the most well-regarded Marines in proficiency and conduct as well as maintenance.

CDI is generally considered synonymous with high performer among lance corporals and corporals, and any sergeant should be a CDI before they have a year in grade. Corporal CDQARs are almost universally stellar, and sergeant CDQARs are considered above average to outstanding, depending on their time in grade. Great leadership requires technical expertise, and so a good standard tends to be no corporal should be promoted before reaching CDI, and no sergeant before reaching CDQAR. SNCOs should be CDQARs unless they are WTIs or have moved laterally into an aviation maintenance MOS.

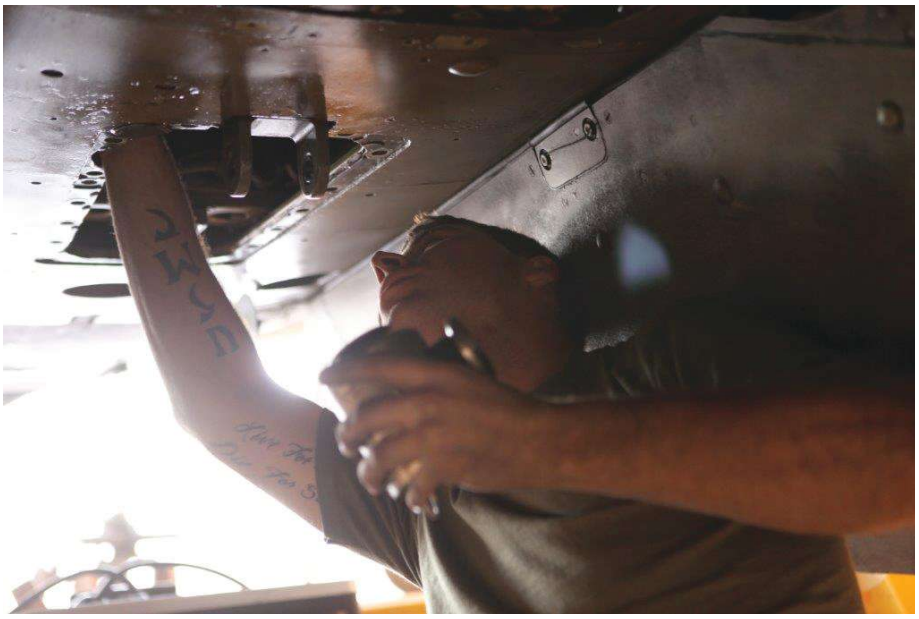
The other most common high-level qualification specific to aviation maintenance is WTI. These are generally, but not universally, crew masters on the C-130 and flightline crew chiefs on the UH-1, MV-22, and CH-53. Marines are usually designated as WTIs just prior to the end of a first enlistment, though corporal WTIs are still relatively rare. WTI is not universally achieved, nor required, by NCO or SNCO enlisted aircrew, but any Marine designated as such is considered to be outstanding. As with maintenance qualifications, WTIs are chosen for their leadership, maturity, judgment, knowledge, and instructional ability. Those Marines who are both WTIs and CDQARs are extremely valuable assets who have twice been vetted for their leadership and judgment. Achievement of other aircrew instructional qualifications is also an indicator of high performance, though they do not require attendance at the formal WTI course at MCAS Yuma. Instructional qualifications include night systems instructor, aerial or tail gunnery instructor, *Naval Air Training and Operating Procedures Standardization* instructor, low altitude tactics instructor, and terrain flight instructor.

Making CDI, CDQAR, and WTI is an intensive process that requires continued study and focus on the part of the Marine and extensive resources and time on the part of the squadron. The limited ability to generate these qualifications means there are only a few created in each squadron over a given amount of time. During the process of creation and afterward, they are extremely valuable to both the squadron and the community. Vetting for higher-level qualifications is tantamount to being vetted for maintenance department leadership. By the time Marines are CDQARs and WTIs, they are usually in leadership positions, whether as division chiefs or as essential maintenance leaders within the work center. The end result is that the community is loath to lose them for any length of time.

All major events in a typical squadron cycle require high-level qualifications. CDIs and CDQARs are required for the maintenance inspection cycle, which lasts six months and occurs every two years, typically prior to deployments. All three are required for deployments and, depending on the community and deployment cycle, they are often traded from unit to unit to ensure squadrons deploy with a competent core of experienced, qualified Marines. This results in a constant cycle of return, preparation, and deployment and shortened dwell time for the most qualified Marines. Lastly, CDIs, CDQARs, and WTIs are all required for squadrons to make more qualified Marines to replace those who reach their end of active service.

Making CDI, CDQAR, and WTI is an intensive process that requires continued study and focus on the part of the Marine ...

The consequence of all these requirements is that aviation maintenance Marines with the highest qualifications are considered so essential to squadron function that they are not always afforded the same opportunities as their outstanding ground counterparts. In some cases, they are actively discouraged or told flat out they cannot attend courses or go to a "B" billet because of the detrimental short term effect on the maintenance department. The most qualified aviation maintenance Marines often do not complete resident PME courses, especially as sergeants and staff sergeants, and rarely fill "B" billets. The opportunities that do become available may in fact go to less qualified Marines who are considered expendable, either for the months required for a PME course or for the years required for a "B" billet. They are sent because the



Get high achieving Marines experience outside their primary MOS. *(Photo by SSgt Keonaona Paulo.)*

squadron can afford to send them, while the best Marines are retained to benefit the squadron in the short term.

Promotion boards, comprised as they ought to be of senior Marines of varying experiences, are choosing between two types of aviation maintenance Marines for promotion. Their fitness reports look quite dissimilar, but one resembles a well-rounded ground Marine. All other things being equal, the board may, and I think will, promote the aviation maintenance Marine who compares favorably to a ground Marine of similar experience even though that Marine is not as well-regarded by his MOS community. Unfortunately, this may not be rectified by examining their fitness reports for several reasons. First, when examining the word picture, intended to break out those Marines with similar scores, aviation maintenance achievements may not be obvious to board members who do not have aviation maintenance experience. Without a background in what it means to be a CDI, a CDQAR, or an aircrew instructor, board members have no frame of reference to measure their achievements. Second, both aviation maintenance Marines may have similar fitness scores, due either to the variance inherent in the system, or higher scores in the "B" billet. Marines who score well in "B" billets should not be discounted when considering promotion, but they may be better candidates for lateral movement, or first sergeant, than for continued advancement within aviation maintenance. To avoid these common pitfalls, it is essential that senior enlisted Marines serving on regular and meritorious promotion boards are educated on the standards and merits by which aviation maintenance Marines are judged within their primary MOS. Just as importantly, squadrons should recognize the long-term benefit both to individuals and to the community of sending their very best Marines to "B" billets and resident PME courses.

Promotion boards, comprised as they ought to be of senior Marines of varying experiences, are choosing between two types of aviation maintenance Marines for promotion.

Fortunately, there are squadrons whose leadership places great emphasis on ensuring their best Marines receive career enhancing opportunities. Those squadrons, however, are not the rule, and Marine Corps aviation may find senior leadership being drawn exclusively from them, to the detriment of both the Marines who are not afforded the same opportunities as other outstanding performers, and of the community, whose pool of quality candidates is not as deep as it could or should be.

Aviation maintenance leadership has an obligation to get high achieving Marines experience outside of their primary MOS. There is an excellent reason the promotion process has developed the way it has: the Marine Corps depends on leaders who have demonstrated the ability to thrive in varying situations and who have been exposed to all the things which make our culture strong. Marines who complete a tour as a drill instructor return with increased ability to apply critical thought to leadership, and Marines return from PME courses with a better grasp on how to strengthen camaraderie and mission effectiveness by leading peers and junior Marines alike. Send outstanding aviation maintenance Marines to resident PME courses immediately after deployment or while they are being transferred between squadrons. Encourage them to pursue "B" billets. They will be more competitive for promotion, less likely to separate voluntarily, and will become more well-rounded leaders. Maintenance departments need to plan early for the long-term career progression of the most outstanding Marines, and recognize that short-term disadvantage will pay long-term dividends for Marine Corps aviation.

USMC

Observations in Command

Leadership is continuous

by Col Kevin J. Stewart

>Prior to assuming his current assignment, Col Stewart was assigned to the Plans Division, Department of Installations and Logistics, HQMC. Col Stewart is currently serving as the Commanding Officer, Combat Logistics Regiment 25, and finishing the first year of a two-year command tour.

First and foremost, it is an honor and privilege to serve as a commanding officer. I use the following quote from President Abraham Lincoln to guide my approach: "All men can withstand adversity, but to truly test a man's character place him in a position of power." Selfless leadership and the simple mantra of "leaders eat last" are at the core of my leadership philosophy. In my view, it is not about specific accomplishments and is much more about ensuring that you lead, serve, and support the right way. The accomplishments will come on their own; it is the leader's responsibility not to chase them, but rather to challenge the team and provide the vision. The goal is to create a challenge that outsizes the resources and watch Marines exceed all expectations to achieve it.

Within this context, there are several things that stand out to me in the Marine Corps today that are important considerations for a leader when setting the environment. In many respects, the most concerning observations do not relate to capability shortfalls, but rather relate to the essence of being a Marine.

Leadership is the foundation of the Marine Corps and our leadership approach is proven and time tested. However, it is being eroded today through the obsessive focus on force preservation and programmatic solutions that attempt to serve as the preeminent leadership tool. I recognize the value of force preservation and that there are a select few Marines who require additional resources and closer supervision, but we cannot allow it to usurp basic Marine Corps leadership. Unfortunately, I see this all too often as we develop solutions focused on the 1 percent that are not adhering to our core values rather than through the lens of the 99 percent who are doing it the right way. Basic Marine Corps leadership must remain the essence of our leadership philosophy and force preservation programs are one tool of many.

The lack of resiliency in Marines today is a challenge that is not getting the level of attention it deserves. I would welcome a Headquarters Marine Corps program in this area, but it is a commander's responsibility to build resiliency. Most importantly, it is about making Marines mentally tough and prepared to deal with life challenges. In my estimation, one of the best ways to do this is to take Marines out of their comfort zone and make them uncomfortable. Classes on what to do when your girlfriend breaks up with you are fine; however, a more effective approach is to develop a unit training plan designed to place the unit and the individual Marine in difficult situations to develop their mental toughness. This will improve resiliency and enable Marines to overcome difficult circumstances.

Take Marines out of their comfort zone and challenge their resiliency. *(Photo by Defense.gov.)*

Physical fitness is also paramount and there are far too many Marines who are not in adequate physical condition. They may be able to pass the PFT/CFT (physical fitness test/combat fitness test) twice a year, but they are not physically tough. Although a third-class score may meet the standard, it is not sufficient and does not translate to physical toughness. Unit physical training programs must be difficult and take Marines to physical exhaustion and beyond. If we are honest with ourselves, many Marines are rarely challenged and unit physical training consists predominantly of motivational runs. If the Marines are physically tough, they are more likely to be mentally tough and resilient.

Unfortunately, I have had to deal with several allegations of sexual assault within the command and each one is unique, but I do think we are too focused on viewing sexual assault through a "predatory" lens. From my experience, most sexual assaults are not predatory in nature, but rather involve a party, alcohol, and uncertain details that are rarely prosecuted. Further, they all revolve around this murky question of consent—how it is given and how it is received. In many cases, I think

We have definitely shown ourselves to be combat capable. *(Photo by Sgt Anthony Ortiz.)*

the alleged perpetrator believed it was consensual at the time only to find out it was not the next day. I write this with all respect for those who have been physically assaulted, and this is not meant to lessen that horrendous offense, but I think the Marine Corps' singular focus on it from a predatory nature is not going to have the desired effect. We need to recalibrate the discussion on the issue of consent because right now it is not fully understood, and until we address it from this vantage, the allegations will continue with very few prosecutions.

In the last few years, the infamous command climate survey has gained relevance and visibility and is sometimes even viewed as a unit report card. It is a sad day in the Marine Corps when we allow anonymous comments on a survey to guide leadership decisions. It is one tool available to assess, but personal observation and direct communication must remain the primary. It is important not to pursue random comments from an anonymous survey, but rather view it holistically and in the proper context.

There are many metrics available to leaders to assess a unit and validate readiness. Numbers are important, but they do not tell the entire story and it is easy to rely on them too much. Leaders obsessed with hitting key metrics only degrade unit morale, and this is far too often the approach taken across a multitude of areas. I would argue that managers focus on metrics and leaders focus on people. Take it one step further; bad leaders will sacrifice their people for the numbers, while good leaders will sacrifice the numbers for their people. It is a delicate balance to maintain and there is no denying the importance of certain metrics, but I think the current alignment could stand to be adjusted to enable increased focus on leading Marines rather than chasing numbers.

A commander is responsible for everything the unit fails to accomplish; there is no denying this universal truth. However, in today's Marine Corps, the "threat" of being fired for failing to achieve a certain readiness level, hitting a key metric, or poor performance on a FSMAO (Field Supply and Maintenance Analysis Office) is real. The key is not to allow any perceived threat to impact your leadership approach. Further, I would offer a word of caution for those who decide to lead under the premise of fear: you may have short-term success, but in the long run, you will be ineffective and unit morale will suffer. Poor leaders thrive on fear and intimidation, while good ones do not.

Safety briefs and operational pauses are now the norm and one of the first questions asked when an incident happens is, "When was the Marine's last safety brief?" Unfortunately, these events are typically "check the box" and little is gained. The same topics are covered, and the standard presentation does little to inspire or motivate the Marines. The challenge is to do these events differently and make them value added; I would recommend including physical events and mental challenges, while focusing less on electrical safety. To make these events worthwhile, it requires the commander's personal involvement and participation; otherwise, the last letter of instruction will be printed out and executed the exact same worthless way.

The enduring principles that identify us as Marines remain strong ...

It is important to acknowledge that we do many things to demotivate Marines. These may be institutional requirements, but the Marines on the receiving end interpret it one way: you do not trust me! Placing cameras in the barracks screams a lack of trust, as does limiting Marines to possessing only a six-pack of beer in the barracks, and there are countless other examples. If we are serious about developing Marines and honing their leadership skills, we need to start trusting them and truly evaluate certain policies that demonstrate a complete lack of faith. If you show a Marine that leadership truly cares, the Marine's loyalty, commitment, and desire to do the right thing will be unshakable. At the end of the day, a sound leader will get efficient service from his Marines, but an incapable leader will demoralize the best of Marines.

In general, I think most Marines do not fully understand "why" they are doing what they do or how they fit into the larger picture. Typically, they are mostly focused on "what" they do, and oftentimes the "what" is not what they signed up for. Nevertheless, it is vitally important work. A supply Marine who works in a hot warehouse counting repair parts every day is a prime example. If we allow him to focus on the monotonous daily grind, he will quickly lose faith with the institution. However, if we constantly remind him of the value of his service and how he is caretaking this equipment in support of another Marine, we are more likely to maintain a high state of motivation and commitment. At the same time, we must find ways to break up the monotony and ensure he never forgets that "Every Marine is a Rifleman." If we allow this to become a slogan and do not reinforce it with regular training, he will lose faith in the Corps. Unfortunately, in many parts of the Marine Corps, this happens far too often. We must reverse this trend.

The enduring principles that identify us as Marines remain strong, but these observations are a good reminder that leadership is continuous and we cannot rest on our laurels. It is not all doom and gloom, and the Marine Corps remains the greatest warfighting organization. However, there is always value in taking a look in the mirror and reflecting on what we are doing and how we can improve. As I begin my second year in command, these observations will guide my approach.

>Author's Note: As I reflect back on this time and prepare for the next year, there are several relevant observations to note that will guide my final year in command. I have made many mistakes and will make many more, so I do not claim to be an authoritative voice, but rather, I am simply offering my personal observations.

USMC

Infantry and Artillery Habitual Relationships

Increasing the Marine Corps combined arms team's lethality

by Capt Daniel J. O'Connell

>Capt O'Connell is currently the CO, Headquarters Battery, 1st Bn, 12th Marines. He has deployed to Operation Enduring Freedom with 2d LAR (2009) and 2d Bn, 6th Marines (2010).

According to the 1927 *Tactics and Technique of Field Artillery,*

> The primary function of artillery is to assist the other arms in combat. Artillery, to be efficient in this role, must be able to deliver accurate and effective fire at the proper time and place … This can be accomplished only by close contact with the other arms and a mutual understanding between the artillery commander and the commander of the supported troops.[1]

This passage explains the importance the United States military has placed on habitual relationships and cohesion. Today, it is common for fire support teams and liaison officers assigned to training exercises or deployments to be from different divisions entirely. This fractured relationship directly degrades the implicit communications and understanding between the supported and supporting unit. The United States Marine Corps must reestablish habitual relationships between infantry and artillery units.

While the Marine Corps had put the value of cohesion into doctrine following World War I, the current doctrine and training do not support habitual relationships. The Integrated Training Exercise (ITX), which, according to the commander of Technical Training Exercise Control Group, Col Kip H. Haskell is "… essentially a melding of the [Marine Air-Ground Task Force], consisting of 129 integrated events involving the [Ground Combat Element, Logistics Combat Element and Air Combat Element]."[2] The ITX is the premier combined arms training event in the Marine Corps. Of the last ten ITX evolutions, seven separate units mentioned the need for habitual relationships or issues caused from the lack thereof.[3] Once the ITX training was complete, the supported and supporting units did not train together again.

These examples reveal what was known in 1927, that the need for liaison officers from supporting units is critical:

> The Principle function of a Liaison officer is, in general, to form a connecting link between the artillery and the troops it supports ... At the same time, [the liaison officer] keeps the commander of the supported unit informed as to the artillery fire support that can be expected in a particular situation. His principle mission is to see that the artillery meets the demands of the supported unit with the least possible delay.[4]

Current doctrine and training do not support habitual artillery relationships. *(Photo by LCpl Samantha Jones.)*

Without intimate knowledge of the artillery unit firing, it is extremely difficult for an artillery liaison officer (now titled a battalion fire support officer [FSO]) to know the exact capabilities and limitations of a firing unit. A 1983 National Security Affairs issue paper on unit cohesion notes, "Group loyalty and discipline occur when soldiers have worked together for long periods and have faith in the proven ability of their leaders."[5] Placing unfamiliar personnel in liaison positions has become an established trend that has eroded combat effectiveness, which can be rebuilt if traditional habitual relationships between artillery battalions and infantry regiments are established once more.

In addition to failing to provide effective liaison officers, nonhabitual relationships damage the ability of supported and supporting units to become familiar with each other's capabilities, SOPs, and key personnel. During ITX 5-14, India Battery, 3d Bn, 14th Marines (3/14) wrote:

> From the battery's standpoint, receipt of our supported units' operational products prior would have provided more realism and relevance. For example, if the battery received either a FRAGO [fragmentary order], Table G, or Appendix 19 of the OPORD [operations order], the battery could fully comprehend the supported maneuver unit's intent.[6]

This vignette portrays the familiar situation of supporting and supported units being forced together moments prior to execution of a training event, or in theater during a deployment. In this scenario, a Reserve artillery battery is supporting an active duty battalion with active duty FSOs (liaison officers) from another battalion. Without any prior coordination, it is impossible for any measure of trust or mutual understanding to be present and makes building implicit communications and mutual understanding impossible. *MCDP 1* highlights the importance of trust: "Trust is a product of confidence and familiarity. Confidence among comrades results from demonstrated professional skill. Familiarity results from shared experience and a common professional philosophy."[7] Trust breeds implicit communications that ensures safety during training. As Marine Corps artillery safety SOP explains, "Safety is the result of proper application of artillery procedures and adherence to requirements and procedures set forth in this order. Artillery procedures are inherently safe."[8] With habitual relationships in place, a firing battery is more likely to tell a supported unit when it is operating outside of its training level and, more importantly, the supported unit is less likely to ask the battery to do something it is not trained to do. Thus, to improve artillery safety during training and build trust within the Marine division, the Marine Corps must reestablish habitual relationships between infantry and artillery units.

... every active duty regiment should have a direct support battalion available to it ...

In fact, units at the ITX have stated the need for habitual relationships, noting that "Units geographically stationed together are better positioned to integrate their training efforts with each other and facilitate MAGTF-level training and operations."[9] Another added benefit of using geographically aligned units is of course that it will cost significantly less for them to train together on a routine basis. While this fact may seem like common sense, when an artillery battalion attended the ITX, only four of six were from the same coast of the maneuver battalion.[10] Thus, assigning specific artillery battalions to support infantry regiments will undoubtedly increase our proficiency in combined arms and raise the Corps' level of lethality. Many units have written about the importance of being physically close: "The near isolation of training units billeted aboard Camp Wilson enhances planning, communication, and unity of effort for both commanders and staff."[11] This quote on its own proves the importance of ITX. Holistically, this effect can be achieved aboard any major Marine Corps base, with some added discipline in unit training management and coordination between division units.

Therefore, every active duty regiment should have a direct support battalion available to it, with an additional general support battalion available for the division's light armored reconnaissance battalion, tank battalion, and combat engineer battalion. This requires at least two battalions (3/10 and 5/10) to be reformed and outfitted. Additionally, permanently assigned to infantry battalions should be an 0802 post-command captain who has served in the supporting unit. This would increase familiarity with fire support teams and increase cohesion at the tactical level. In his planning guidance, former Commandant of the Marine Corps Gen Joseph Dunford, asserted that "in all that we do, we should seek to reduce the dissimilarity between how we conduct ourselves in combat and garrison."[12] This would mean sending units that have worked with each other before at home station to ITX and combat together to build cohesion. Gen Dunford also insists that "we will implement a plan to provide each geographic and functional combatant command with a proper tailored and effective Marine component."[13] Thus, if we never intend to send units from different coasts to combat under the same division, it does not make any sense to train them this way. If we want to arm the combatant commanders with the most effective MAGTF, we must begin training them together now.

Of course, adding permanent personnel to tables of organization (T/O) and reforming decommissioned battalions would not be without cost. These changes would incur huge costs both in material and manpower. First, reviving two artillery battalions would require around 2,000 additional Marines and hundreds of thousands of dollars of equipment. This addition would clearly require a budget cut in another area of the Corps, potentially reducing our effectiveness in other areas. Adding an 0802 to the permanent T/O of an

We shouldn't be afraid of organizational change. *(Photo by defense.gov.)*

infantry battalion would most likely require them to come from the artillery regiments, thus requiring at least nine captains across the regiment to detach. Additionally, in a 2015 brief to Expeditionary Warfare School, Command and Staff College Instructor LtCol Jeffrey Tlapa pointed out that organizational change, while inexpensive, can be both risky and disruptive, due to the fact that they challenge the status quo.[14]

Fear of change is a common issue in military organizations. When one perceives his forces to be superior, a major roadblock to adaptation is in place, as Roman General Frontinus displayed. After establishing military dominance through superior training discipline, Frontinus did not seek advantage through new technology or tactics. Dr. Williamson Murray notes in *Military Adaptation in War* that "Quite simply, the Romans did not have to innovate or adapt, and without incentive for change, human beings and their institutions will rarely, if ever, alter the proven methods of the present in favor of the uncertain in the future."[15] The United States military is currently facing the same issues as the Roman Empire and Frontinus. After years of battling mediocre opponents, there is no incentive to change the way business is done. Due to infantry and artillery units being unfamiliar with one another, the Marine Corps has to send all units through intensive fire support training before they deploy to close this training and cohesion gap. This, of course, is quite expensive. It is also likely that these units will change no less than one third of key personnel before they are in combat together. By making a battalion FSO a permanent duty, this individual will be able to establish relationships with the artillery regiment, ensure both units are informed of each other's training plan, and integrate artillery battery personnel into key planning meetings. If these changes are adopted, the Marine Corps will become more efficient and deadly.

Thus, permanent FSOs build implicit understanding through habitual relationships, and creating formal supporting and supported relationships will make the MAGTF more lethal and reduce risks in training. Ensuring the proper amount of artillery battalions exist to support these habitual relationships, while costly, will provide the combatant commanders with a complement of forces where trust already exists. Assuming risk in lack of familiarity between units of the MAGTF will make the Marine Corps stagnant. Dr. Murray explains the danger of ignoring the need to adapt: "Thus, when there is no ability to recognize the patterns from a military organization's own experience, the direct result is a repetition of the same mistakes and errors. It is as Yogi Berra noted, 'déjà vu all over again.'"[16]

Notes

1. U.S. Army Command and General Staff College, *Tactics and Technique of Field Artillery: A tentative text,* (Fort Leavenworth, KS: General Service Schools Press, 1927), 130.

2. LCpl Lauren Kurkimilis, "Marine Corps Changes Deployment Training," *Marine Corps News*, (Twentynine Palms, CA: MCAGCC, September 2012), accessed at http://www.military.com.

3. ITX After-Action Reviews (AARs) 1-13, 2-13, 3-13, 4-13, 5-13, 6-13, 1-14, 2-14, 3-14, 4-14, (Twentynine Palms, CA: MCAGCC, 2014).

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5. Jeremy J.J. Phipps, *Unit Cohesion: a Prerequisite for Combat Effectiveness,* National Security Affairs Issue Paper 82-3, (Washington, DC: National Defense University, 1982), 2.

6. ITX 5-14 AAR I 3d Bn, 14th Marines, 2014.

7. Headquarters Marine Corps, *Marine Corps Doctrinal Publication 1, Warfighting,* (Washington, DC: 1997), 58.

8. *Joint Regimental Order 3570.1E, Marine Corps Artillery Safety Standing Operating Procedure,* (Washington, DC), I 1-3.

9. ITX 6-13 AAR 1/12.

10. ITX AARs (1-13, 2-13, 3-13, 4-13, 5-13, 6-13, 1-14, 2-14, 3-14, 4-14).

11. ITX 3-14 AAR 2/10.

12. Gen Joseph Dunford, *36th Commandant's Planning Guidance* 2015, (Washington, DC: October 2014), 8.

13. Ibid., 3.

14. LtCol Jeffrey Tlapa, "The Future Amphibious Environment" briefing on 2 February 2015, given to Expeditionary Warfare School, Quantico, VA.

15. Williamson Murray, *Military Adaptation in War,* (New York: Cambridge University Press, 2011), 43.

16. Ibid., 313.

The 0351 Infantry Assaultman

Crippled by the SMAW

by Sgt Nicholas Miner

Today's 0351s, or infantry assaultman, face a serious problem. This problem is debilitating, costly, and renders the assaultman almost combat ineffective. It isn't a problem of training or individuals, but rather the weapons system that the 0351 has to work with. That weapon is the SMAW (shoulder-launched multipurpose assault weapon). An aging, costly, underpowered, and ineffective system, its lack of usefulness means that line companies have very little in the way of antiarmor capabilities. Why does the Marine Corps continue to attempt to update and use this ineffectual weapon when much better options are available?

This is the first piece of work that will cover the problems that I think face today's assaultmen. While there are other problems to be addressed, a dysfunctional weapons system is by far the most troubling. The SMAW's full nomenclature is the MK 153 MOD 0 SMAW.[1] Throughout this article, it will be referred to as either the MK 153 or the SMAW, both referring to the same system.

Marine assaultmen face serious problems with weapons systems. *(Photo by Bill Johnson-Miles, MCSC.)*

The MK 153 MOD 0 SMAW

At the time of this writing, there was not one company in my battalion that had a full complement of working SMAWs. My section had three, and the other two companies had four each. That is not the fault of our company or battalion staffs who have done everything they can to ensure that we have the prescribed six SMAWs for the Assault Section. The problem lies in the SMAWs themselves. SMAWs simply are not durable enough to last under today's combat demands. Made of fiberglass and epoxy with the MK 9 Mod 0 Spotting Rifle attached by brackets, they cannot endure the continuous trauma that comes from the demands of today's infantryman. The spotting rifle is constantly jarred out of its BZO (battle zeroing) due to buddy rushing and being banged around. When the spotting rifle loses its BZO, the entire weapons system has essentially become ineffective. Because the iron sights and spotting rifle are adjusted to the LBS (laser bore sight) of the tube, if there is any movement in either of them, then there is no guarantee that the rocket will strike home. Assaultmen are trained to use the spotting rifle to predict where the rocket will hit. However, if the spotting rifle is off, and the gunner adjusts to the now incorrect impact of the spotting rounds, then the rocket will correspondingly miss. Even with constant LBSing,

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and BZOing of the weapons system, the spotting rifle will lose its zero just by simply bouncing off the gunner's gear while he is maneuvering on the battlefield or training area renders the system ineffective. There is simply no reliable way to employ the SMAW while not in a static position.

Another issue the SMAW faces is its selection of rockets. The maximum effective range of the rocket capable of the most range—the MK 6 MOD 0 HEAA (high explosive antiarmor) rocket—is only 500 meters. And by doctrine, it is only capable of penetrating 21–23 inches of cold rolled homogeneous steel. Not only are most of today's battle tanks capable of firing the main gun and coaxial machine guns at ranges greater than 500 meters, they are also protected by much more than 23 inches of steel. If they are outfitted with reactive armor plating, which prematurely detonates rockets before their shape charge can penetrate the tank's armor, then the rocket is completely useless. The only use the HEAA rocket would have then would be against armored personnel carriers and other light-skinned vehicles, which, while useful, denies the infantry an antitank weapon at the squad level, as well as negating the MOS title of "antitank assaultman." While the MK 3 MOD 0 HEDP (high explosive dual purpose) rocket has more uses than the MK 6 MOD 0, it is also in danger of constantly missing its target due to the inefficiency of the spotting rifle. The MK 80 MOD 0 novel explosive round, while highly effective against caves and bunkers, is not a rocket that I have personally ever used or even seen, nor have I ever talked to a fellow assaultman who has seen or used one. The selection of rockets, with their limited capabilities, as well as the defects of the weapons system, causes the SMAW to be an outdated weapons system. While the assaultman is also taught basic urban breaching skills, these skills are considered secondary to his rocketeer abilities, as well as being unpractical for a variety of reasons.[2]

So what can be done to combat these problems? I believe that a different weapons system is required to further the assaultman's capabilities. Thankfully, the military has a variety to choose from. However, the two that would be most beneficial to the 0351 would be either the LAAW (light antitank weapon) or the Carl Gustaf.

LAAW versus SMAW

The infantry rifle company already uses the solution to the organic rocket problem: the M72 LAAW. Lightweight, one-man operated, easy to employ, and disposable, it is a simple and eloquent solution for the assaultman. With multiple variations of the weapons system capable of firing from enclosure, an improved antiarmor capability, and the ability to fire on troops in the open, the multiple uses of the LAAW can easily become an integral part of the 0351's rocketeering capabilities. The light weight of the system means that each 0351 can carry multiple LAAWs and still carry less weight than the typical load out for an assault rocket team which consists of the SMAW and one rocket for the gunner and two rockets for the assistant gunner. Also, having the 0351s carry the LAAWs would in turn "lighten the load" for the 0311s. With the less weight that the general infantryman has to carry, he will tire less quickly and be able to move more quickly on the battlefield. With every assaultman in the section carrying two LAAWs apiece, every rifle platoon would be afforded four rocket shots versus the three from a SMAW. The weight of one LAAW is 5.5 pounds. This means that a typical two-man assaultman team would carry a total of 22 pounds, with four total rocket shots.[3] Compare this to the current load out, which is three rockets plus the SMAW, which totals 55.62 pounds at its lightest possible configuration, with only three rockets. The advantage of the LAAW is also clear. Also, as MSgt Bogart, an explosive ordnance disposal master technician, explains, the LAAW actually has greater penetration capabilities than the SMAW rockets because of the superior shape charge it contains.[4] However, overall penetration for the LAAW is much less than the SMAW's HEDP rocket, with only 10–12 inches of penetration verses 21–23 inches for the SMAW.

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The Carl Gustaf

The other option for assaultmen would be to move to an entirely new crew-served system. The choice is clear cut: the Carl Gustaf recoilless rifle. The reasons for doing so are almost limitless, primarily because of the types of rounds the Carl Gustaf has. For true antiarmor purposes, the Carl Gustaf utilizes the 84mm HEAT 751 round, which has penetration exceeding 20 inches as well as a protective shield and standoff to defend against explosive reactive armor (ERA). Almost all modern tanks are outfitted with some form of ERA which defeats normal rockets by exploding outward when penetration occurs, thus defeating the warhead of the rocket. For multipurpose, there is the 84mm HEAT 551C and HEDP 502, both of which boast the ability to engage lightly armored targets as well as bunkers and buildings. The MT 756 uses the "follow-through grenade" principle that the newer E-SMAW uses: it completely negates the need to fire in through a door or window and instead punches a hole through the wall and detonates behind the wall. For destroying buildings and other urban constructions, there is the ASM 509, and for engaging troops in the open

(a capability the SMAW lacks), there is the high explosive 441D, which can be set for impact or air burst detonation. Perhaps most exciting, however, are the smoke 469C and illumination 545C rounds which are smoke and illumination rounds, respectively. These give the infantry squad the capability to screen and mark targets as well as illuminate them all on the fly. If there is no time to call for mortars and there are no 203 rounds left with the squad, this could prove to be lifesaving.[5]

For cost effectiveness in training, the Carl Gustaf has four types of practice rounds, which are two subcaliber and two full caliber rounds. This would allow for more cost effective training not only in School of Infantry, but also in the Operating Forces. While slightly heavier than the SMAW (the Carl Gustaf weighs 19 pounds versus 16.92 pounds for the SMAW) and much longer (43 inches for the Carl Gustaf versus 29.92 inches for the SMAW), the Carl Gustaf would still be easy for assaultmen to adjust to. The Carl Gustaf also comes with a Picatinny rail system for mounting both day and night optics or it can be fired with the iron sights which are fitted with illumination dots for night firing.

During 13–15 October 2014, Saab introduced a new variant of the Carl Gustaf: the Carl Gustaf M4. Weighing in at 15.43 pounds and with a length of 39.37 inches, it shaves nearly three pounds and four inches off the M3 Carl Gustaf variant, as well as being a 1.5 pounds lighter than the MK 153 MOD 0 SMAW. The new variant also includes adjustable grips and shoulder rests for improved comfort, a round counter for maintenance purposes, and can even be carried fully loaded for faster use in combat. The new M4 variant is also able to use all previously developed rounds for the Carl Gustaf as well as support all future rounds. All of these things lead to an even more lethal assault section. Imagine being able to quickly load and carry HE rounds to quickly engage armored threats that arise, and then firing an illumination round for improved visibility at night. If contact is made, assaultmen could switch to an air burst round for engaging troops in the open or fire smoke rounds to screen movement to an objective. The Carl Gustaf also boasts new FFE (fire from enclosure) rounds to fire from inside buildings, negating the need of a large clear back blast area. A majority of these rounds is already available as mortar rounds, but being able to carry them as an integrated part of the squad means they will be quickly available and be able to switch out as the situation dictates.

In December 2013, the Marine Corps tested out the SMAW Mod 2. This new version replaced the MK 9 spotting rifle with a laser range finder and thermal sights as well as removing the iron sights in favor of a flip-up sight. Overall, these changes have reduced the SMAW's weight by 3 pounds to a total of 13 pounds.[6] While these are steps in the right direction, there are still crucial problems with the SMAW. A poor design, expensive and limited munitions, and now a sight that will have to be properly cared for while getting jostled during buddy rushing and other tactical maneuvers bodes ill for the future of the SMAW.

If contact is made, assaultmen could switch to an air burst round for engaging troops in the open or fire smoke rounds to screen movement to an objective.

Replacing the SMAW with the LAAW or—even better—the Carl Gustaf would be a huge improvement for assaultmen, line companies, and the warfighting capabilities of the Marine Corps as a whole. And with the introduction of the new Carl Gustaf M4, the weight and length limitations are even further reduced while offering even more useful and tactically advantageous benefits. While I understand that the Corps prides itself on doing more with less, replacing the SMAW with a newer system would greatly increase combat efficiency as well as continue to keep the 0351 a relevant part of the warfighting community.

The Carl Gustaf. *(Photo by en.wikipedia.com.)*

Notes

1. U.S. Marine Corps, *Technical Manual 08673A – 10/1B Launcher, Assault Rocket,*

The SMAW is an outdated weapons system. *(Photo by Sgt Alex C. Sauceda.)*

83MM, (SMAW) MK 153 Mod 0, (Washington, DC: 2005) 1-1.

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3. Department of the Army, *Field Manual 3–21.8, The Infantry Rifle Platoon and Squad,* (Washington, DC: 2007), Appendix B.

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Adapting SMAW to Urban Fighting Again

A densified propellant for firing from enclosures

by Diana Bragunier & Matthew J. Sanford

"With bullets flicking by, the SMAW team set up. Rokos tapped the gunner to take the shot. Just as the rocket was fired, Rokos looked around, saw a Marine crouching in the backblast area, and dove backwards, knocking the Marine clear. The platoon commander was amazed to see SMAW team after SMAW team repeating what Rokos had done: breaking cover, kneeling in the street, taking a shot and then ducking back inside."[1]

–Bing West
No True Glory

Once, small units primarily needed supporting arms to destroy buildings. That changed with the shoulder-launched multipurpose assault weapon with novel explosive, or SMAW NE. It's a capability with an even greater potential that small units will need in tomorrow's urban warfare. But, realizing this and other shoulder-launched munitions' potential depends on developing them to fire from buildings and enclosures.

A technological solution—a densified propellant—is being developed by propulsion scientists and engineers at Naval Surface Warfare Center Indian Head Explosive Ordnance Disposal Technology Division (NSWC IHEODTD) in Maryland. Not only can this propellant help small units fight from more places in urban areas, it also offers advantages for other weapons systems. It's just one development indicative of a very intense competition facing U.S. warfighters and scientists.

A Growing Need

In urban warfare, "Direct fires sometimes become the firepower means of choice," states *Joint Publication 3-06: Joint Urban Operations*.[2] "In urban battles since World War II, artillery, anti-tank weapons, and anti-aircraft weapons have proven more valuable in a direct fire role against targets than in their primary roles."[3] That's seen with tanks, once thought vulnerable in cities. In Fallujah[4] and Sadr City, tanks with advancing infantry destroyed enemy-held buildings, saving U.S. warfighters from bloody fights to clear them.[5]

However, there are some things that big, direct fire systems can't do in cities. For example, in Grozny, Russian tanks could not lower their main guns and coaxial machineguns to shoot into Chechen-defended basements[6] nor could tank guns elevate and hit forces when firing from tall buildings. In Fallujah, very narrow streets permitted only foot-mobile infantry,[7] and only infantry could wage the three-dimensional fights that occurred between densely packed houses.[8] In these and other situations, destruction of fortified positions greatly depends on infantry-carried, direct-fire systems.

The SMAW NE gave Marine small units dramatically increased, direct firepower. Developed by NSWC IHEODTD for Marines, the munition disperses and ignites a cloud of combustible material. This produces a devastating heat and overpressure in a room and adjacent rooms,[9] often collapsing buildings. At Fallujah, 3d Bn, 1st Marines exhausted its supply of SMAW NE, flattening structures.[10] Reportedly, in one day, one Marine crumbled 12 buildings with 14 SMAW NEs.[11] "Bunker-busting weap-

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ons are invaluable for urban combat," found the Marine Corps in its earlier analysis of Grozny.[12] The SMAW NE validated that finding.

There are two big reasons why Marine small units will need the SMAW NE and other shoulder-launched munitions even more in the future. First, more urban warfare is likely, states the *2010 Joint Operating Environment* (Suffolk, VA: Joint Forces Command,) "By the 2030s, five billion of the world's eight billion people will live in cities. Fully two billion of them will inhabit the great urban slums of the Middle East, Africa, and Asia."[13] This is a "recipe for conflict," as Dr. David Kilcullen wrote on this urbanization.[14] Operations in such cities will require infantry battalions to disaggregate into small units.[15] Consider, as an example, Dhaka, Bangladesh, with 15 million people in a 590 square kilometer area with 1.4 million buildings.[16]

The second reason is hybrid warfare—non-state adversaries fighting asymmetrically with increasingly sophisticated weapons. Indications were seen in the 2008 Israeli advance into Gaza.[17] Hamas turned urban areas into deadly mazes of tunnels, booby traps, and sophisticated roadside bombs.[18] Supported by indirect fire systems, Hamas' small teams employed antitank guided munitions, rocket propelled grenades (RPGs), including RPG-29s; MANPADS (man portable air defense systems), machine guns, sniper rifles, mines, and explosively formed projectiles.[19] Today, with more advanced weapons, Ukraine separatists wage hybrid warfare on steroids.[20]

An explosive charge set by Marines with 8th Engineer Support Battalion, 2d MLG, detonates against a wall during a field operation, Camp Lejeune, NC. *(Photo by Cpl Sullivan Laramie.)*

In such urban warfare, Marine small units will need to fire SMAW and other shoulder-launched munitions not just from open areas but from concealed, confined, and enclosed spaces. The problem, though, is sound and backblast. I "immediately felt this insane concussion which seemed like an earthquake," as one Marine described firing the SMAW.[21] Sound levels hit 186 decibels, requiring double hearing protection for gunners and limiting training to five rounds a days. Backblasts are lethal at 30 meters and dangerous to 100. Fired from a room, reverberating sound and overpressure will likely seriously injure or kill those within.

Marines from 2dBn, 2d Marines practice dry runs with the SMAW. *(Photo by Cpl Phillip Clark.)*

A Propellant That Doesn't Burn

War involves problem solving, as Dr. Paul Kennedy wrote in *Engineers of Victory: The Problem Solvers Who Turned the Tide in the Second World War.* That's what naval warfare centers do. They understand Navy and Marine Corps warfighting problems and systematically develop technical solutions for them.

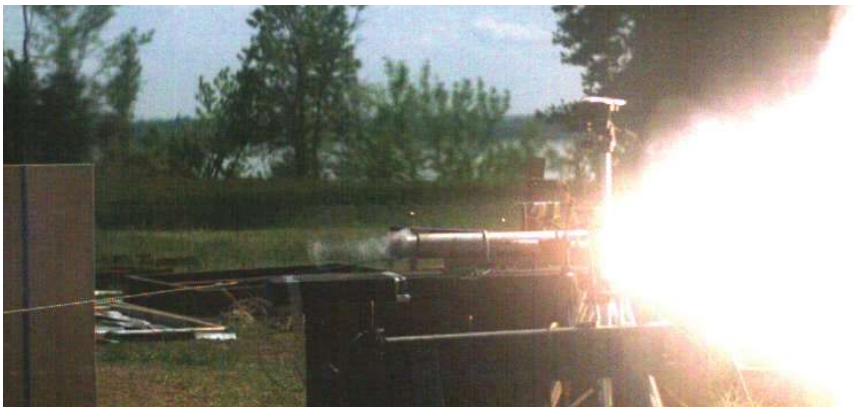
Such is the case with NSWC IHEODTD. Within the naval science and technology enterprise, NSWC IHEODTD researches and develops energetics—energy releasing, chemical materials for propellants, explosives, and pyrotechnics—as well as counters for them. In warfighting parlance, NSWC IHEODTD personnel are the rocket scientists, explosive experts, and counter bomb technologists who create technical solutions in these areas.

The SMAW's continuing development exemplifies this problem solving. When Marines sought an improved SMAW for coming urban warfare in Iraq, NSWC IHEODTD scientists and engineers understood their needs, and the science and technology likely meeting them. They had already extensively researched thermobarics, or novel explosive, and therein lies the value of naval warfare centers. They often research areas for potential warfighting advantages, thus reducing development and fielding times when requirements do eventually emerge. As a result, the SMAW NE was developed in nine months.

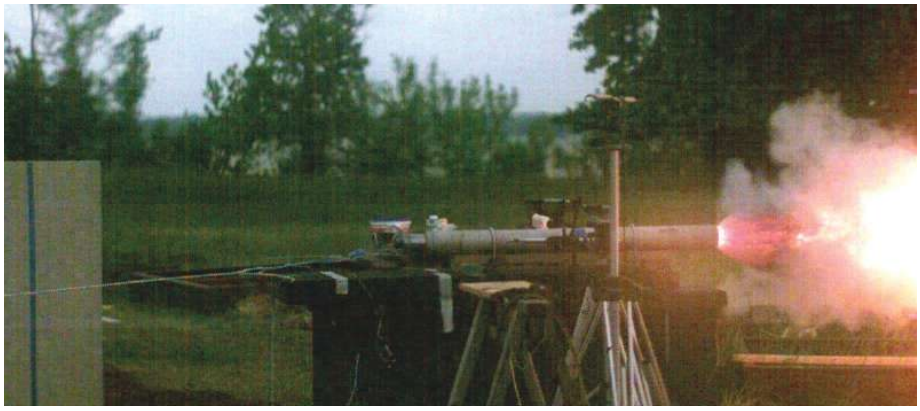
Today, Marines seek a SMAW that can fire from enclosures and confined spaces—considered a future naval capability for operations in urbanized littorals. It means reducing sound and backblast, a problem which naval energetics scientists and engineers also have investigated. Initial study found that a SMAW rocket uses almost a pound of propellant, all burning in the tube, with almost 90 percent of the energy going out the back. The remaining energy pushes the rocket forward.

The problem required scientists and engineers to figure out how to get less energy going backward and more energy going forward. But, other factors impacted the problem. Costs had to be kept down for a munition used extensively in training and combat. And, then there is the Marine adage: "Ounces equal pounds, pounds equal pain."[22] A fix could not increase size and carry weight which ruled out a solution based on the Davis Gun—a recoilless rifle, firing heavier and longer shells than rockets. Scientists and engineers, therefore, focused on changing the propellant and retained the compact, elegant form of a rocket motor.

Important to problem solving is "a culture of encouragement," wrote Kennedy in *Engineers of Victory*, one encouraging "problem solvers to tackle large, intractable problems." Kennedy singled out the post-1919 Marine Corps as such an organization. Despite many naysayers, the Corps had "enough freedom to develop its own ideas on advanced naval bases."[23] That culture of encouragement applies to technology development, as many initiatives also face disbelief and doubt. Such encouragement is found in naval warfare centers.



Less backblast is the goal. *(Photo courtesy NSWC.)*



A densified propellant with Tungsten may provide an answer. *(Photo courtesy NSWC.)*

The proposed solution for the SMAW's backblast problem initially defied conventional wisdom. It is a propellant that has less burning material, and more material that doesn't. Termed "densified propellant," it consists of 10 to 85 percent Tungsten—that doesn't burn.

It Works

Think of swimming in a pool—kicking water pushes you, but kicking off a pool wall pushes you more. Similarly, in densified propellant, the burning material's energy develops gas pressure, which pushes against the inertia of the non-burning Tungsten; this accelerates the particles in the nozzle while at the same time pushing the motor case and warhead forward. The resulting backblast has less hot turbulent expanding gas and many sound dampening Tungsten particles, mostly between 10 to 45 microns in size, which accelerate out the back of the tube and rapidly dissipate.

The percentage of Tungsten varies with applications. For shoulder-launched munitions, like SMAW, densified propellant has a higher percentage of Tungsten so as to reduce peak sound and overpressure. Conceivably, for aircraft-fired missiles and rockets, densified propellants would have lower percentages of Tungsten because more impulse and minimal weight gain would be required.

This densified propellant is proving itself in tests, garnering support from Office of Naval Research, Marine Corps, Joint Insensitive Munitions Program, and industry. Densified propellant has been tested in over 100 static firings in six different rocket motors; flight demonstrated in TOW missiles;

and flight demonstrated in multiple SMAW firings. These tests show that densified propellant:

- Reduced peak sound pressure level by at least 10 decibels, relative to fielded SMAWs (significant as decibels decrease/increase logarithmically and not linearly);
- Drastically reduced overpressure and fireball;
- Reduced structural damage when fired from enclosures and confined spaces; and
- Increased impulse, or push forward, by up to 35 percent per unit volume, allowing a reduction in propulsion system size and weight.

Potential to Do More

The big task ahead is to finalize the propellant mix, notably determining the measure of Tungsten that best reduces sound and overpressure while increasing push or impulse for the rocket and minimizing added mass. This includes evaluating densified propellant munitions fired from enclosures and confined spaces. The goal is to demonstrate the SMAW with densified propellant as a future naval capability in 2018.

The propellant offers other potential advantages beyond the SMAW in warfighting. Eventually, the motors in the present inventory of SMAW rockets must be swapped out, as propellants destabilize over time. Replacing them with densified propellant motors is estimated to provide a 5 to 10 percent savings. The cost of Tungsten is relatively low, so changing the propellant means relatively minimal cost.

Densified propellant also has potential applicability to other weapons systems, as well. It could reduce backblast sound and overpressures for other shoulder-launched munitions. The propellant was also used in TOW missile demonstration, helping double its range—a research initiative earning the densified propellant team the Department of the Navy's 2011 Dr. Delores M. Etter Top Scientist and Engineers of the Year award. Additionally, it could benefit air-launched, 2.75-inch rockets in the Advanced Precision Kill Weapon System. Additionally, it offers advantages for cartridge- and propellant-actuated (CAD/PAD) systems that use small propellant volumes to move large masses, like rocket-assisted aircraft, canopy removal systems, and ejection seats, and jet-assisted take-off for heavily loaded aircraft.

Adapting With a Vengeance

Weapons must fit the environment. The SMAW was changed to give small units more direct firepower in urban warfare, and it will be changed again to allow them to fight from more confined urban spaces. Not surprisingly, though, it won't be the end of solving problems for the SMAW—or any other U.S. weapons system.

The SMAWs adaptations are part of a much bigger and very intense competition facing Defense. "Our enemies have gone to school on us," stated Deputy Secretary of Defense Robert Work, "and they have adapted with a vengeance. They spent the past few decades investing heavily in capabilities that counter our own."[24] In the world ahead, our challenge will be adapting forces and weapons to their environments, faster than adversaries. It's a contest that demands warfighters and scientists work much closer than they ever have before.

Marines from 2d Bn, 4th Marines preparing to fire a SMAW during live fire training exercise in the Northern Territory, Australia, September 2013. *(Photo by Cpl M.S. Orton.)*

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A Marine with 8th Engineer Support Battalion fires SMAW during a field operation, Camp Lejeune, NC. *(Photo by Cpl Sullivan Laramie.)*

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Being Aware of Culture

American Indian Cultural, Communication, and Consultation Course

by Maj Julio C. Gonzalez

Recently, I attended the Department of Defense (DOD) American Indian Cultural, Communication, and Consultation Course facilitated by the Senior Advisor and Liaison, Native American Affairs, Office of the Secretary of Defense. Why should this interest a Marine officer? Virtually all installation commanders oversee activities that affect American Indian and Alaska Native (AI/AN) interests. You may well find yourself as an action officer for one of these activities. You will want to be able to advise your commander accordingly. If possible, I highly recommend attending this three-day course (more information is available at http://www.denix.osd.mil), which requires no funds outside of travel, if necessary. Barring this possibility, I offer the following summary.

A Marine speaking with a Navajo code talker at Camp Pendleton, March 2013. *(Photo by LCpl James Gulliver.)*

U.S. Government and Department of Defense Obligations to Native Americans

The U.S. Government (USG) has legal obligations to AI/ANs. Federal laws and treaties recognize the sovereignty of AI/AN tribes. However, it is important for a commander to recognize the precarious balance that exists between the sovereignty of tribes and the sovereignty of the USG, and the fact that there is some ambiguity in this relationship. Federal law dictates that Federal agencies act in the interests of tribes even without a specific directive to do so. This obligation is referred to as the "trust responsibility." The USG also has a "duty of protection" to tribes against environmental and other threats to tribal lands, resources, graves, traditional cultural properties, and archaeological sites. In addition, the USG has a fiduciary duty to tribes when the USG acts as a manger of tribal resources. Federal officials have an obligation to hold meaningful consultations with tribes any time Federal action is going to impact tribal land or resources and to maintain and provide to the tribe an accounting of all transactions.

There are numerous Federal laws, Executive orders, and a DOD instruction that governs DOD actions affecting tribal interests. These resources guide the DOD in upholding its legal

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obligations and duty to conduct meaningful consultation, respect tribal rights to self-government/self-determination, and assess effects of USG actions on tribal interests and resources.

The primary responsibility of the installation commander is to conduct meaningful consultation, as directed in *DOD Instruction 4710.02, Interactions with Federally-Recognized Tribes*, (Washington, DC: September 2006). Meaningful consultation means that commanders must consult with tribal leaders on all proposed actions with potential to significantly affect a tribe, and they must consult early enough that the proposed decision may be affected. Meaningful consultation ensures that tribes have a voice on USG decisions that affect them, and avoids tribes finding out about potential impacts to them after decisions have already been made by the USG. According to the current USG interpretation of the United Nations' Declaration on the Rights of Indigenous Peoples, meaningful consultation with tribal leaders is required, but agreement is not.

The Federal Government has legal obligations to American Indians and Alaska Natives. *(Photo by the Bureau of Indian Affairs.)*

Interacting with American Indian and Alaska Native Tribes

To interact successfully with AI/ANs, you must work to understand AI/AN perceptions of you, a USG representative, and how those perceptions are shaped by history. To do so, educate yourself about the history of tribal relations with European settlers and the USG. More importantly, you must know how tribes perceive that history and understand how those perceptions affect tribal interactions with you. From the perspective of many AI/ANs, European settler impacts to AI/ANs include multigenerational trauma, loss of languages/cultures, outlawing of traditional religions/cultural practices, annihilation of entire tribes due to war, disease, starvation, and forcible removal from ancestral homelands and subsequent inability to adapt to new lands.

You must also be aware of the contrasts between dominant American thinking and the views of many AI/ANs tribal cultures. In general, AI/ANs see themselves as part of an intricate interconnection of individual and community, with physical, spiritual, and cultural health depending on the health of their environment and natural surroundings, whereas typical Americans will tend not to see these as being connected. Most AI/ANs will understand the well-being of each of these to be dependent on the other, thus regarding the natural world as a source of healing and spirituality rather than as a set of resources to be exploited.

Many AI/ANs may perceive time as cyclical rather than linear, which is more typical of the dominant American view. Thus, it is the usual case for many Native Americans to place a high value on the past as having continuing effects in the present, sometimes having an impact on perceptions of urgency. Age is respected as highly as expertise or position, and gender roles are delineated in a variety of ways from tribe to tribe, including tribes that continue to be matrilineal.

Communicating effectively with AI/AN tribes, as in many tribal societies, requires effective relationship building as part of the communication process. Ensure that you invest time into building relationships with tribes before making requests. Some tribes make decisions by consensus, not by majority votes. To have any influence on the consensus building process within tribes for which this is the case, recognize the difference between statutory and functional leaders. Establish good relationships with the functional leaders. That will help to build understanding, which could subsequently help to build consensus. It is very important to find allies within the tribe who are willing to lend the credibility of their voice to your concerns. Understand that decision making may be multilayered, perhaps including councils of clan mothers or other clan bodies who are the functional leaders. Ultimately, all tribal governments are different and unique. It is important to know who the highest elected or appointed tribal official is in order to know the proper person to contact for formal consultation purposes.

There are some notable differences in tendencies of communication styles between AI/ANs and dominant American society. These include communicating in a subjective versus objective manner, focusing on relationships versus focusing on business, and focusing on the past versus focusing on the present.

Communicating effectively with AI/AN tribes, as in many tribal societies, requires effective relationship building as part of the communication process.

AI/ANs may also put more emphasis on the sacred, often intending to bring a sense of the sacred into everything they do. When communicating verbally, patiently waiting to take turns talking is a sign of respect in both directions. Nonverbal communication is universal, but its meaning is not. For example, you may encounter people listening with their arms crossed or eyes down, but this should not be misinterpreted as inattention or indifference, as it may be in another setting. Silence and long pauses are not necessarily signs of frustration or conflict but are likely to be signs of respect and thoughtful contemplation from the listener. Regard silence as part of the conversation. Native people may also prefer more personal space than most Americans and may not welcome touching. It is important not to touch people or their things (jewelry, for example) unless you know that it's okay.

When meeting with AI/ANs, ensure that food is a part of your interaction! Food is a great way to bring together people with competing concerns in almost any culture. Additionally, offering gifts is a time-honored tradition in a great number of AI/AN tribes. Never turn down a gift from a tribe or tribal member. If the gift is too large to legally accept as a personal gift, accept it in the name of your organization.

Cultural Competency Is a Warfighting Skill

The core qualities of an effective intercultural communicator:

1. Assumes cultural differences but doesn't assume to know or understand them.
2. Knows self and his own culture.
3. Understands and is willing to adjust his own communication style.
4. Open-minded, nonjudgmental, and flexible about others' values and communication styles.
5. Demonstrates respect appropriately.
6. Is curious and has a good sense of humor.

The value of cultural competency to today's warfighter is well understood within our Marine Corps. Interacting with AI/AN tribes is a cultural competency training opportunity in your backyard. If you can interact successfully with AI/ANs on issues that, by law, you should be communicating with them on, you are already well-prepared to be a more complete counterinsurgency leader and operator. To be successful, know what makes a good intercultural communicator and recognize that "if you want to be culturally competent, you must suspend your illusion of knowledge."

Unmasking the Islamic State

Operational Culture Comparative Analysis and Identification of al Qaeda and the Islamic State

by Hamid Lellou

Napoleon Bonaparte once said, "You must not fight too often with one enemy, or you will teach him all your art of war."[1] After more than two decades of dealing with al Qaeda (AQ), we are still struggling to understand an enemy that is constantly adapting to a changing situation. The 2003 surge in Iraq didn't defeat AQ. Rather, arbitrary arrests and the jailing of Iraqis at Camp Bucca prison helped this organization spawn a new entity, the Islamic State (IS), which has morphed into a monster of its own. "We could never have all got together like this in Baghdad, or anywhere else," a former top IS leader (Abu Ahmed) told *Guardian* reporter Martin Chulov. "It would have been impossibly dangerous. Here, we were not only safe, but we were only a few hundred meters away from the entire al Qaeda leadership."[2] Understanding this new monster (IS) and how they differ from AQ is key to deciding what actions to take next.

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Here's the first clue: IS is not AQ

Virtual Space (AQ) vs. Physical Space (IS). AQ exists as an ideological organization without headquarters, where people sign up to fight for ideals. In an effort to create a large uprising, AQ created multiple cells that could operate independently. While the IS has created a physical space, they pretend to function as a state by offering services, passports, salaries ($550 for locals vs. $1,200 for foreigners), and charity.

Area controlled by ISIL is in dark orange. *(Map from Radio Free Europe/Radio Liberty.)*

Amirul-Mu'minin (Commander of the faithful) said: "O Muslims everywhere, glad tidings to you and expect good, raise your head high, for today—by Allah's grace—you have a state and khilafah (Caliphate), which will return your dignity, might, rights, and leadership"[3]

Life after death (AQ) vs. Life during life (IS). The AQ organization proposes an intangible dream and one-way ticket—(*IstishHaad: martyrdom*) while the IS proposes a physical dream with one-way ticket if killed or to enjoy a dignified life under the Khilafah. "The goal of establishing the Khilafah has always been one that occupied the hearts of the mujahidin since the revival of jihad this century."[4]

Kill the West (AQ) vs. Create a State (IS). AQ's target has always been the west. "O America, O allies of America, and O crusaders, know that the matter is more dangerous than you have imagined and greater than you have envisioned. We have warned you that today we are in a new era, an era where the state, its soldiers, and its sons are leaders, not slaves."[5] The strength in the IS's ability to establish a state lies in the fact that much of its administrative and military leadership were former members of the Baathist party that were fired during Bremer's debathification policy. They already possess skills in running an organized government, building infrastructure, and developing military strategy.

Secret Gathering and Internet (AQ) vs. Theatrical communication via YouTube (IS). While the two organizations have a lot in common, their main difference resides in elements of their *modus operandi*—including their

Detainees at Camp Bucca. *(Photo by SSgt Shawn Morris.)*

mode of recruitment. AQ has been in the business for a while, even before the Internet era. Over the years, AQ's recruiting techniques have evolved from popular speeches and preaching at mosques and madrassas to video streaming (YouTube). However, with the help of IT-savvy westerners the IS's communications technology remains unbeatable. The Web gives the IS an enormous pool of young people connected to the Internet.

Call to Muslims to follow the "True Islam" (AQ) vs. Call to all those who feel a Spiritual Void (IS). If you believe that you can track the IS by monitoring only Jihadists forums, then you are doomed. Unlike AQ, who targets disappointed but vulnerable young Muslims who are dissatisfied with their leadership and Muslims' situation in the world, the IS castes a wide net targeting worldwide youth, regardless of their faith, origin, nationality, or social background. Youth that are thirsty for justice and inspiration.[6]

West is the cause of all problems (AQ) vs. You can be the solution to all problems (IS). AQ focuses its efforts on U.S. targets and does whatever it can to drag U.S. forces to the region. Their intent is to bleed the U.S. economy and exhaust Americans so that they will stop supporting Muslim *Taghut* (unjust Muslim rulers). According to Gen Petraeus's former adviser in Iraq (Dr. Kilcullen),[7] AQ applies four basic tactics:

1. Provocation: To provoke a massive retaliation from government mixing between terrorists and civilians. Examples: 9/11, *Sunni/Shi'a* attacks in Iraq, Chechen School.
2. Intimidation: To prevent local population from cooperating with governments or coalition forces or countries. Examples: Spain 2004, UN in Baghdad 2003.
3. Protraction: Insurgents seek to prolong the conflict in order to exhaust their opponents' resources.
4. Exhaustion: To impose cost on the opponent government, overstress its support system, tire its troops.

In its quest to convey a message to the American people, the IS has so far emphasized attacking American interests in the region. "There is no evidence of [Islamic State] planning attack on US soil."[8]

However, "concerns emerge over Islamic states' ability to inspire or direct attacks on global scale."[9]

Leave behind all possessions (AQ) vs. Come make your home here (IS). Terrorism and radicalism are nothing new. At some points, all religions and ideologies have witnessed or undergone some form of radicalism. AQ followed this kind of trend, calling people to leave behind everything for martyrdom. However, there is something unique about the IS. The whole idea of being a terrorist organization, selling itself as a state, recruiting as a sect, and finally fighting simultaneously as a regular army and insurgent group is rather disturbing. They are offering a new beginning, "*Hijra (migration to Islamic land)* is obligatory for doctors, engineers, scholars and specialists—there are homes here for you and your families."[10] In their own tainted view, they see themselves as the statue of liberty for the Middle East and the revival of the region.

Terrorism vs. insurgency. Although the definition of terrorism varies from one agency to another, AQ's worldwide cells fit the criteria for terrorism. However, the IS—as an armed organization that controls a territory as large as England and provides services to as

Can you Guess "Who is Who?"

• **Virtual space**	• **Physical space**
• **Life after death**	• **Life during life**
• **Kill the West**	• **Create a state**
• **Secret gathering & internet**	• **Theatrical communication**
• **Call to follow true religion**	• **Inspirational call to all with spiritual void**
• **West is the cause of problems**	• **You can be the solution to all problems**
• **Leave behind all possessions**	• **Come make your home here**
• **Terrorism**	• **Insurgency**

Figure 1.

many people as six million civilians who don't necessarily share its values—has become at best an insurgency and at worse a dictatorship.[11]

Determining Center of Gravity

From the analysis above, you can see that the only thing that the IS and AQ have in common is their ideology. They diverge in almost all other aspects. But this common element is something we cannot ignore. It began two hundred years ago when reformist scholar Ibn Abdelwahhab allied himself with Beni Saud, which led to the Wahhabi state of the Kingdom of Saudi Arabia, whose political ideology continues to affect the region. If we look carefully at AQ and the IS, the essence of their ideology comes from Wahhabism, not to be confused with *Salafiyah*. While AQ began as a group politically dissatisfied with Wahhabism, the IS rose from an alliance with dissatisfied AQ members and renegade Iraqi Baathists.[12]

Therefore, the question would be who is more dangerous? Which one is stronger? Which one should we focus on?

In the last year, most media attention has been focused on the IS; however, AQ has been around for more than 20 years. With knowledge of the organizational differences, let's look at each one's center of gravity (CoG). In physics, the CoG is the point at which an object is in equilibrium. If we need to hit the target hard enough to destroy it, we must hit it at its center of gravity. If it is hit at a point above, below, or at either side of the CoG, the object will be destabilized, either shifting, spinning, or tipping, but in the end remains intact. We can imagine the IS as a cup of coffee on a table, while AQ is a scattered group of cookies. If you look at the cup of coffee, you can fairly easily estimate its center of gravity. But what about those cookies representing AQ? How would you calculate their combined CoG? It is much easier to find the center of gravity of a single mass (IS) than of a group of satellites (AQ).

... the only thing that the IS and AQ have in common is their ideology. They diverge in almost all other aspects.

Immediately, the IS presents a much more eminent danger for the Middle East. As for U.S. interests, we cannot forget that AQ has carried out the largest terror attacks in history, on U.S. soil. Nevertheless, if the IS survives to its fifth year, it will become a greater danger to Europe and the U.S. In addition, if the IS begins to accept satellites or no vetted organizations could weaken

the IS' CoG, it could make them more dangerous to U.S. interests. If we don't give the IS "*le coup de grâce*," its surviving elements will resurface and will probably reinforce AQ since their *modus operandi* works well in hiding.

How Can We Use This Knowledge?

At some point, we must admit we were wrong and made mistakes. This is the only way to ensure that this will not happen again. "Even now, five years after the U.S. closed down Bucca, the Pentagon defends the camp as an example of lawful policy for a turbulent time."[13] Whether the camp was lawful is for someone else to debate, but there is no doubt that it was effective—but not for us. It was effective in developing the leadership of the IS; currently, 17 of the 25 most important IS leaders spent time in U.S. prisons in Iraq. However, some of these leaders are becoming disillusioned by the extreme violence that the IS is using. We could use this violence to our benefit by offering them another alternative: press Baghdad to share power and resources with all its constituents, including the Arab Sunni and Kurdish population. This approach will reduce people's grievances and cut the ground from under the IS's feet.[14]

Although the IS controls a space larger than England, provides limited services to its constituents, and planned to print its own currency by the end of July 2015, it is still politically incorrect to call the IS a state. "Successful U.S. wars have been fought against states; insurgencies (such as the North Vietnamese) have proven much harder foes. Thinking about the battle against the IS in traditional military terms will do no good."[15] Likewise, the IS is bigger than a terrorist organization. Terrorists kill people—including civilians—randomly or with planned attacks, but they do not occupy areas, provide services, or print their own currency. The IS uses brutal tactics by killing its prisoners or those believed to be spies. It also controls large lands of Iraq and Syria and provides services to those living under its authority. By the end of July, it planned to print its own currency.[16] If this is not a state, an ordinary terrorist organization, or an insurgent group, I propose that we frame it as a hybrid terrorist insurgent organization; a sophisticated insurgency organized group with elements that behave like state actors. Our approach should be simultaneous combined tactics that we would use as if we were fighting a terrorist state.

By framing the problem this way, we will be able to use the battlespace framework and, therefore, simultaneously use all lines of operation: legs, good governance, information operation, combat operations (but no direct U.S. participation), train and employ forces, essential services, and economic development.

Einstein once said, "If I had an hour to solve a problem, I would spend 55 minutes thinking about the problem and 5 minutes thinking about solutions."[17] The clock is ticking. The evidence is out there. Let us be smart in analyzing our enemy so that we can develop solutions that will give us a long-term strategic win.

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Concealed Carry Aboard Military Installations

Protecting your command and rights

by Maj Sam Johnson

The brave men and women of the United States Armed Forces do an awe-inspiring job to protect our rights as citizens. Uniformed servicemembers have to be prepared to defend this freedom by all means necessary and must be willing to pay the ultimate sacrifice. Every Marine takes an oath to preserve this freedom by supporting and defending the Constitution of the United States of America against all enemies, both foreign and domestic. However, Marines are asked to forfeit an inalienable right, which is clearly stated and protected in the document they are asked to defend. Marines sacrifice time away from family and loved ones. Marines sacrifice certain rights such as Freedom of Speech in order to preserve good order and discipline. Marines should not be asked to sacrifice their Second Amendment right to bear arms. Allowing authorized servicemembers to conceal carry firearms on military installations will help to uphold Second Amendment rights and will serve as a strategic deterrent to increase overall security aboard these installations.

DOD Manual 5100.76 (*Physical Security of Sensitive Conventional Arms, Ammunition, and Explosives*), MCO 5530.14A (*Marine Corps Physical Security Manual*), and Commander, U.S. Fleet Forces Command, and Commander, U.S. Marine Corps Forces Command Base, Station, and Installation Physical Security Assessment Report, Part 2, establishes policies to restrict authorized servicemembers from carrying a concealed weapon on government installations. Furthermore, on 3 April 2014, MARADMIN 176/14 (Interim Guidance for Privately Owned Firearms Policy Aboard Marine Corps Installations), was published which reinforces the restriction. MARADMIN 176/14 states, "Consistent with references and Installation Commander's inherent authority to ensure good order, discipline, security, and force protection aboard their respective installations, local directives will contain provisions that: 3.A.2 Prohibit carrying privately owned firearms as concealed weapons aboard Marine Corps Installations."[1] The directive set forth in this MARADMIN does not ensure good order, discipline, security, and force protection; it does the very opposite. The Marine Corps must realize that authorized concealed carry of firearms increases

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We demand proficiency with the pistol yet when Marines have a valid concealed carry permit for a personal weapon, we disarm them. *(Photo by Cpl Kyle N. Runnels.)*

the overall security of any establishment.

Concealed carry has become more prevalent over the past decade and is now more accepted than ever before. There are currently 49 states that have concealed carry or right to carry permits for firearms. Thirty-nine of these states recognize the right of the permit holder of one state to transpose the permit to another state. Leadership within the Marine Corps must realize the overwhelming majority of civilian leadership in the legislative branch of government is taking a progressive stance regarding the right of citizens for concealed carry. New laws are passed every session to increase the range of law-abiding citizens such as the National Right-to-Carry Reciprocity Act, the Secure Access to Firearms Enhancement Act, and the Common Sense Concealed Firearms Permit Act.[2] Congress generally agrees upon the right of individuals to protect themselves, and the Marine Corps must be willing to follow suit.

The Colorado theater shooting, the two Fort Hood massacres, and the myriad of school shootings that have taken place over the past 20 years all took place in areas that restricted the ability for law-abiding citizens to legally carry a concealed weapon. One cannot say that the restriction of concealed carry would have totally prevented the atrocious acts of these madmen, but it would have undoubtedly served as a strategic deterrent. For example, the 20 June 2012 shooting in Aurora, Colorado involved a well-equipped killer who walked into the Cinemark Century 16 Theater, killing 12 and wounding an additional 58. In a recent article published on *Fox News*, author John Lott contends the killer chose that specific theater because it banned guns. He highlights that there were seven theaters in the area that were both closer to the killer's residence and more crowded, but the killer chose this specific one. The theater banned concealed carry on the premises. Lott goes on to say, "With just one exception, the attack in Tucson last year [2012], every public shooting since at least 1950 in the United States in which more than three people have been killed has taken place where citizens are not allowed to carry guns."[3] The theater case is a perfect example as to why authorized servicemembers should be allowed to carry a concealed firearm aboard a military installation. Events like this are not confined to the civilian sector, as these horrendous acts take place on well-secured military installations as well.

On 5 November 2009, Major Nidal Hasan killed 13 and wounded 31 others at Fort Hood, Texas.[4] Less than five years later, another deranged soldier opened fire at Fort Hood, killing 3 and wounding 16, before killing himself.[5] The Washington Navy Yard Shooting on 16 September 2013, shows the vulnerability of our Department of the Navy facilities and is one of the primary reasons MARADMIN 176/14 was published.[6] Department of Defense installations are perceived as hardened security complexes, yet examples such as these shootings magnify the need for personal security and concealed carry. Most recently, a gunman attacked two military installations in Chattanooga, Tennessee. A U.S. Naval Reserve Center and a Marine Corps Recruiting Station were both attacked by Muhammed Youssef Abdulazeez. Four Marines and a Sailor were killed. The irony is that on the bullet-ridden door of the Recruiting Station was a sign indicating that the RS was a gun-free zone. Referencing these types of gun-free zones, John Lott argues, "Gun-free zones are a magnet for those who want to kill many people quickly."[7] The Department of the Navy and Headquarters Marine Corps believe the answer in preventing such acts is to increase security and restrict guns in the hands of the very people that are sworn to protect and defend their fellow man. A better solution would be to facilitate the legal and prudent permit of conceal carry aboard these installations. The current restriction hinders any type of immediate action response that could very well save the lives of countless others if an attack were to occur.

Instituting a change in policy such as removing the restriction of concealed carry aboard military installations is a challenging endeavor but is one that will save lives. States vary in their procedure by which concealed carry permits are obtained, but some similarities include an extensive background check. Additionally, states ensure they are in compliance with the Lautenberg Amendment that "Makes it a felony for anyone convicted for a 'misdemeanor crime of domestic violence,' to ship, transport, possess, or receive firearms or ammunition."[8] Further eligibility requirements typically include age, residency, and no history of substance abuse, felony convictions, or firearms possession infractions. Routinely, these states also require some form of firearms proficiency training.[9] The policy must recognize the concealed carry permits of the state in which the installation lies. The Department of the Navy must also recognize the 39 reciprocity states that are authorized to carry in all of the listed states. The state in which the permit is obtained already does an extensive background check on those permit holders.

The following procedures should be fully implemented:

- Individuals must possess a licensed conceal carry permit in the State in which the installation is located or a permit of another state that is recognized by the State in which the installation is located (Reciprocity States).
- The permit holder must register himself with the Installation's Provost Marshall's Office.
- The permit holder will inform his Chain of Command that he has a valid conceal carry permit.
- Installations will have dedicated training sessions for all authorized permit holders, which must be attended on an annual basis.

The individuals who are authorized for concealed carry will help mitigate the possibility of an attack on an installation. Commanders will also benefit from knowing who is authorized to conceal carry and use this knowledge in time of need. Yet, there still may be objections to lifting the restrictions.

In spite of the likely benefits to allowing concealed carry aboard military installations, there are many advocates for the current policies outlined previously in this paper. One major objection to conceal carry is based upon the belief that more guns equals more crime. In

his book, *More Guns, Less Crime*, author John Lott takes this argument head-on. Lott states, "Preventing law-abiding citizens from carrying handguns does not end violence; it merely makes victims more vulnerable to attack."[10] Lott depicts the result of extensive research and studies that prove that a society will be safer with fewer gun restrictions. Statistics such as the mean-per-capita death rate from mass shootings in states that have non-discretionary concealed handgun laws plummeted following changes of less restrictive gun laws.[11] Moreover, Lott proves that areas classified as gun-free zones are far more likely to be attacked. Most criminals strongly consider their own self-preservation and ability to inflict the most death and destruction when selecting the location of their crime. The restriction of the concealed carry is widely known to criminals, and it will increase the likelihood of their attack in those areas. If the perpetrator knew he might encounter someone who is authorized to carry a concealed weapon, he might think twice about choosing that location. Ultimately, lifting the ban on concealed carry aboard military installations would decrease the likelihood of those attacks discussed previously.

Another argument to lifting the ban of concealed carry aboard military installations is that these establishments are secure enough already. This is just simply not the case. First, revisit the number of attacks on our military installations over the past five years. Even with an increase of the security posture, deranged killers still find a way to get in. Installations do not have the ability to facilitate the search of each vehicle coming aboard the base. Once a killer is inside an installation, he can inflict an extensive amount of death before law enforcement agencies have a chance to respond. The Marine Corps has already been proactive on this front with numerous commands having armed duties, but equipping authorized servicemembers with the ability to conceal carry makes our installations more secure. Furthermore, concealed carry is a strategic deterrence to those would be criminals, ultimately helping law enforcement agencies.

The most prominent objection to allowing concealed carry is that it would take away from the good order and discipline within the ranks of the Corps. Those who are in this demographic should question the trust and confidence the Marine Corps has in its young warriors. Marines prove time and time again that they are worthy of trust whether on an independent combat patrol or having the final authority to fire a 100 pound, 155mm projectile, 18 miles away from the enemy. Marines can be trusted and leaders should hold that trust whether deployed or in garrison. It is not easy for a Marine to obtain a concealed carry and statics show licensed gun owners are not the individuals who commit the crimes. Installations can institute training requirements and initiatives that help both the permit holders as well as give commanders the fidelity that trained concealed carry permit holders are available in a time of need. Such training increases the overall trust the commanders have with their Marines authorized to conceal carry. The increase in trust will aid in the rise of good order and discipline. Allowing authorized concealed carry is a way of showing such trust and further protecting the environment.

... lifting the ban on concealed carry aboard military installations would decrease the likelihood of those attacks ...

Marines have proven that they are most prepared when the Nation is least prepared. The current Department of Defense, Department of the Navy, and Headquarters Marine Corps' policy of banning concealed carry aboard military installations is counterintuitive to Marines being ready to answer the call. Current policy should be lifted, allowing law-abiding servicemembers to carry a concealed weapon aboard a military installation. At a minimum, military policy makers need to have a discussion as to why conceal carry should not be considered. The change will lessen crime, limit future attacks, and provide for heightened good order and discipline. Such an order is a direct infringement on our Second Amendment right and contradicts the very document the military is sworn to protect. We must protect others, our rights, and ourselves.

Notes

1. Headquarters Marine Corps, MARADMIN 176/14, "Interim Guidance for Privately Owned Firearms Policy Aboard Marine Corps Installations," (Washington, DC: 3 April 2014).

2. United States Government Accountability Office, *Gun Control: States' Laws and Requirements for Concealed Carry Permits Vary across the Nation,* (Washington, DC: July 2012).

3. John Lott, "Did the Colorado Shooter Single Out Cinemark Theater Because It Banned Guns?" *Fox News*, (10 September 2012), accessed at Foxnews.com.

4. P. Weissert and Paul Weber, "Jury in Fort Hood Shooting Trial Finds Maj. Nidal Hasan Guilty," *NBCDFW*, (23 August 2013), accessed at http://www.nbcdfw.com.

5. Clint Henderson, "Another Fort Hood Massacre," (3 April 2014), accessed at http://www.foxnews.com.

6. Headquarters Marine Corps, MARADMIN 176/14.

7. Lott.

8. Headquarters Marine Corps, MARADMIN 186/03, *Policy for Implementation of Lautenberg Amendment*, (Washington, DC: 21 April 2003).

9. Tim Schmidt, "What About State and Federal Gun Laws?" accessed at http://www.usconcealedcarry.net.

10. John Lott, *More Guns, Less Crime*, 3rd Edition, (University of Chicago Press: Chicago, IL, 2010).

11. Ibid.

Professional Note

The Spare Parts Stash

Base Plate McGurk Expounds . . .

"Tex, my friend, I am in complete agreement with you," I said, toasting him as I went on. "Doing the right thing can be tougher than you think, and it seems like it can be even harder in situations that are not life or death combat—like maintenance."

Both Tex and Dusty looked at me with furrowed brows, expecting that I was going to disparage their MOSs once again.

"I'm serious!" I could see I was not making any impression, and so I began to weave another story.

"This goes back to my earlier story during the time I was with Lieutenant History Book. Keeping those LAVs running took a lot of work. It not only took a lot of time and effort but took some creative methods to make the supply system respond quickly enough. One of the things we did was to liberally interpret what a parts expendable bin [PEB] could contain."

Tex rolled his eyes and Dusty shook his head.

I smiled and continued, "The PEB is normally for small high use items and parts that the unit can maintain on hand without having to order against a broken vehicle. It makes a lot of sense and speeds up repairs of minor problems. But some guy with glasses thick enough to stop bullets at Headquarters Marine Corps makes a list of what is allowed in a PEB, and I can tell you from experience that there ought to be a lot more on that list. And I was not the only guy with that opinion.

"So, somehow along the way, mechanics were getting their hands on spare parts and placing them in the PEB. These parts ranged from distributor caps to differentials to chain gun parts. One company had a line on a spare engine they kept at a guy's house in his garage."

Dusty was starting to get red thinking about the description of these abuses to the supply system.

If the units ... did not maintain an illegal PEB, there would be more parts available ...

"Now hold on, these additions to the PEB were well meaning. Nobody was selling parts out in town or anything. This was all about mission accomplishment. When a vehicle broke down, the mechanics would write a parts order for the components that were broken. Assuming the part they ordered was in the 'enhanced PEB,' they would hang the part and get the vehicle up and running again. All the while, the parts order was still on file. When the part came in, it went back into the PEB. Then the work order was closed out. I think you can all see the benefit of this to make a super slow supply system start to work faster."

Dusty unloaded at this point. "You have it backwards! If the units properly submitted orders and did not maintain an illegal PEB, there would be more parts available to help people when they needed it. This is especially true for the bigger components like your spare engine! That engine is out of circulation, sitting in a guy's garage, and not in the supply system to deliver to the unit that needs it the most!"

Tex was enjoying the show, seeing me on the wrong end of an argument with Dusty.

"Hey look, Dusty! I'm telling a story. Let me finish." Dusty threw up his hands in exasperation.

"So, I get it. By maintaining an illegal PEB, also known as a parts stash, I take items off of the supply shelf and make it harder for people to fix broken vehicles because I have the parts, and they are sitting idle."

"Thank you for recognizing the evil of your ways," replied Dusty and then turned to Tex. "This is why grunts are not allowed to fix their own stuff."

"Anyhow! Things were going on like this before I got to the unit and seemed to be fairly well entrenched. The battalion commander got wind of this process. Soon after he did, he brought in all of the mechanics and maintenance chiefs one day and drops the bomb."

I paused for effect.

"'We are no longer going to have enhanced PEBs in the battalion,' he

announces. 'Every single part that you have that goes beyond the PEB allowance list will be hung on a broken vehicle or returned to the actual supply system within the next seven days.' Gasps erupted from everyone.

"'But sir, there is no way we are going keep things running!'

"'Readiness is going to drop through the floor!'

"'You'll never get promoted after your first crappy LM2 report comes out.'

"'Sir, you really don't want to do this.'

"After about five minutes of objections, the colonel held up both hands. The maintenance chiefs were certain they had him convinced to change his decision. Boy, were they wrong.

"'That's the last I want to hear about this. No more unauthorized PEB. I expect that each and every one of you will do his very best to keep this battalion's vehicles running, but doing it illegally is not justified. If our readiness drops, and I am certain it will, I will answer for it. Not you.'

"'The fact of the matter is that we have circumvented the supply system and have built our own parts black market within our unit. I have talked with the other LAV battalions about this and we are all going to empty our spare parts stashes. That way, we can get parts back on the shelves and available to the guys who need it the most. That means Marines in harm's way are first in line. Then those who are getting ready to deploy. Then to those who remain. This is the right thing to do.'

He laid the foundation for success by talking to higher headquarters and his adjacent units to identify the problem and provide a way to fix it.

"'I have spoken with the Division commander and told him to expect a drop in readiness until we sort this problem out and get the supply system back on track. I've also gone to the Division G-4 and to the general support maintenance guys at the Marine Logistics Group to get help. This is not an LAV company problem. It's a community problem and I've got support from higher and adjacent. We can fix this and we will fix this. It's that simple.'

"Old timers who were around when the battalion stood up said it couldn't be done. This was just how you got the maintenance system to work. Just like jump starting a car with a dead battery. Everyone at that meeting was convinced the boss was crazy and would be fired inside of two months. He went on to command the battalion for two years. Today, he is a three-star general. Our readiness dropped as predicted and it took six months to get back to where we were before the change. But we did it legally."

Tex chimed in at this point, "Base Plate, you said that guy had guts and I think he did. He had to work up enough moral courage to do the right thing. But I think you are missing the fact that he had brains as well. He laid the foundation for success by talking to higher headquarters and his adjacent units to identify the problem and provide a way to fix it. The maintenance culture in the LAV battalion was a problem. But Division, the other LAV battalions, and the general support maintenance guys were stakeholders in the problem as well. Without addressing the entire problem, the unit would have eventually gone back to doing things the old way."

"So are you suggesting that a grunt can be both courageous … and smart?" quipped Dusty, as I threw a nearly empty can at him.

To be continued …

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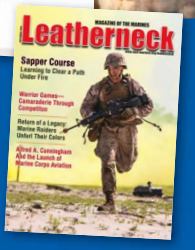

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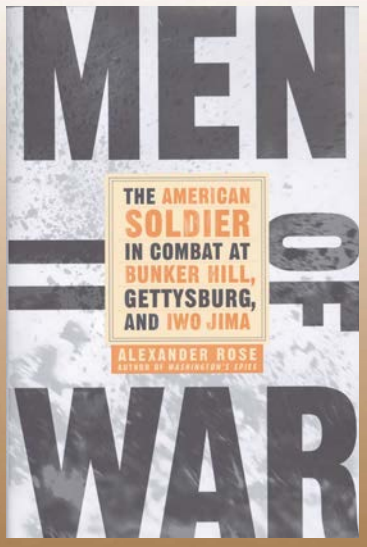
The Power of the Man in the Arena

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



MEN OF WAR: The American Soldier in Combat at Bunker Hill, Gettysburg, and Iwo Jima. By Alexander Rose. Random House, New York, 2015
ISBN 9780553805185, 496 pp.
$30.00 (Member $27.00)

Well-regarded war histories seldom narrate and analyze combat from enlisted and junior officer perspectives. Instead, as Alexander Rose observes in his introduction to *Men of War*, "innumerable volumes have been written about the generalship of various commanders, their leadership skills, and how they won (or lost) their battle at the operational level, but relatively few about the lowly soldiers who served under them."

Rose is right. Other than first-person memoirs and fiction, high-level accounts of war dominate the field. Memoirs about small unit action can make compelling reading, but even the best of them, such as Eugene Sledge's classic, *With the Old Breed: At Peleliu and Okinawa*, (Presidio Press, 2007) tend toward the anecdotal. The dearth of authoritative portrayals of "lowly soldiers" is lamentable, though, because up-close portraits of war's human dimensions connect with those in uniform readying for war and those who return from it. *Men of War* masterfully captures and proves the relevance of a powerful study of "lowly soldiers" in action.

In a riveting grunt-level three-part narrative, Rose dives deeply into the world of enlisted men and junior officers in three iconic battles that span 170 years of American history—Bunker Hill (1775), Gettysburg (1863), and Iwo Jima (1945). From an American frontline perspective, Rose purposefully emulates the late John Keegan's approach in *The Face of Battle* (Penguin Books, 1983), which focuses on Agincourt (1415), Waterloo (1815), and the Somme (1916).

>Col Chase retired in 1998 after more than 30 years of service, active and Reserve, and practices law in New Jersey. He served as an infantry platoon commander in Vietnam. His father, the late Maj-Gen Harold Chase, was wounded twice as a lieutenant on Iwo Jima in 1945.

Men of War transcends first-person recollections and memoirs, as Rose captures a broad swath of what war was like for men who pulled triggers and lanyards. Unlike histories of or by generals, which emphasize the strategic landscape and "larger meaning," the young fighting man in a long campaign came to see Iwo Jima as, in Rose's words, "a grinding, repetitive slog that had to be endured until it ended."

Rose, like Keegan, never served in the military. But, as with Keegan's writing, Rose presents an eye-level view of combat. The fast-paced journey through his three selected battles, though often brutal and wrenching, is hard to put down. Combatants in each battle speak for themselves. Rose's assemblage of contemporaneous quotations, inserted at the right moments, bring home realities and fears at the frontline. At the most basic level, Rose offers exceptional insight into human frailties as well as the fears, courage, and sacrifices of junior men in combat, and develops the drudgery, violence, and chaos of individual participants' experiences into page-turning drama.

Although far apart in time, the three battles nevertheless portray both similarities and dramatic differences among American combatants across centuries. One commonality was that inexperienced troops, anticipating their first combat, were prone to anxiety about the unknown and questioned their ability to measure up.

The factors of luck and happenstance are present in all combat, and Rose depicts well the often apparent randomness of military violence. Sudden, immediate death or maiming was commonplace in Rose's three battles. Bouncing cannonballs at Bunker Hill tore into men viciously, tearing flesh and lopping body parts. Physical deprivation, terrible weather, and challenging terrain exacerbated the toll at Gettysburg and on Iwo. In all three battles, men became resigned to their fates. On Iwo especially, where Marines struggled yard by yard against a formidable entrenched enemy for five weeks, most openly

expected wounds or death. Rose speaks of Marine lieutenants on Iwo whose platoon leader tenures lasted only a few hours or even just minutes.

The differences in fighting across different eras included the increasing lethality of individual weapons and artillery, evolving tactics, and the duration and intensity of battles. Bunker Hill lasted only a single day, engaging perhaps a total of 5,000 men between the two sides; Gettysburg encompassed three days of almost incomprehensible carnage—more than 50,000 total casualties; and Iwo Jima spanned five weeks from first landing to all-secure and total casualties soared above 50,000 (although nearly all Japanese casualties were KIA, whereas the Marines suffered about 6,000 deaths among 26,000 casualties).

Be warned: Rose draws often from numerous graphic recollections and descriptions. This reference to recollections of Union hospital duty at Gettysburg is illustrative:

> ... there were rows of "helpless soldiers, torn and mangled, [whose] lacerated limbs were frightfully swollen and, turning black, had begun to decompose; the blood flowing from gaping wounds had glued some of the sufferers to the floor."

Rose breathes reality into descriptions of embattled men. He brings into sharp focus the tactics of the 1860s that piled up breathtaking casualty figures. Today's military would call the ubiquitous frontal assault tactics "crazy," as there was little encouragement to maneuver, cover, or conceal. Forces marched headlong into almost certain death or serious wounding as they braved artillery barrages from a distance and point blank fusillades from an awaiting entrenched enemy. After citing some of the appalling casualty numbers, Rose says:

> A willingness to suffer, rather than inflict, high casualties was considered evidence of a muscularly Christian and heroically masculine will to win, not of lamentably poor command, bad planning, flawed execution and idiotic decision-making, as we might assume today. In our eyes, attacking an entrenched position manned by thrice one's number might be regarded as insane and criminally wasteful rather than as bold and brave, but to Civil War contemporaries, a man's internal "moral" tower could conquer any such "physical" obstacles as field works, artillery and rifle fire.

By far, Iwo Jima spans the longest section of *Men of War*. The grinding yard by yard advance to take Iwo lasted more than 10 times the three days of Gettysburg and 35 times the single day of Bunker Hill. Taken alone, this part of Rose's book should be required reading for anyone with an interest in amphibious assaults and operations ashore. For the Marine Corps, the island became a wounding and killing machine. "[A] significant number of platoons and squads experienced a hitherto unthinkable casualty rate of greater than 100 percent. In these units, no original members remained, and even their replacements, and *their* replacements had been burned through." In that environment, the tacit no-quarter practice in the Pacific War continued, as did innumerable atrocities, including mutilation of the dead.

From raw and brutal experiences of men at war who endured unimaginably savage fighting, Rose succeeds masterfully in portraits of three battles spanning 170 years, spaced among three centuries of American history. He describes weaponry, ballistic characteristics, tactics, and training. Most prominently, he portrays the intimate brutality of combat, and the men as they fight, including the destructive power of a cannonball as it hits, bounces, or explodes (Bunker Hill and Gettysburg). Although the term "post-traumatic stress disorder" (PTSD) awaited a late-20th century definition, Rose presents plentiful illustrations of the phenomenon in and after these battles, as in this observation of Iwo's Marines:

> [A] man's comrades had to watch for subsequent indications of what was variously known as the Asiatic stare, the bulkhead stare, or, perhaps most famously, the thousand-yard stare. This affliction was caused neither by trauma nor by the fall of artillery, but by day after grinding day of bone-tiredness, nervous exhaustion, poor diet, and exposure to extreme danger.

Gettysburg veterans showed, among other afflictions, "increased incidence of . . . postwar nervous disease and depression." However, Rose seems to embrace the counter-intuitive view that America's Revolutionary Era soldiers probably did not suffer from such afflictions. "It is likely," he says, "that profound psychological problems were, relative to their modern incidence, somewhat uncommon." This conclusion, however, seems too speculative, given the little attention at the time to the psychological consequences of combat.

Superbly crafted, *Men of War* weaves the stark realities of horrific combat violence and "crazy" tactics (Gettysburg) into a compelling narrative of American men who fought in the three battles of Rose's choosing. Although some of the description, often in quotations from survivors, can be graphically mind-numbing in intensity and detail, Rose nevertheless successfully places the bloodshed into the context of tactics that, by modern standards, may seem wildly sacrificial of the combatants.

At the end, Rose himself seems overpowered by the violence and mayhem he narrates. He recalls Keegan's observation that "professional military historians . . . tend to be more pacific, if not pacifist, than the population at large because they keenly understand the costs, price and tolls of war." But this epiphany for Rose is hardly new for the professional servicemen who fully comprehend the sacrifice of those called to fight. *Men of War* reminds the American democracy to consider sending its youth to war when, and only when, the cause is as clear and vital, as was the case in this fine book's three poignant examples.

USMC

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Editorial Policy and Writers' Guidelines

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

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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 required except for direct quotations, but a list of any source materials used is helpful.
- **Ideas & Issues:** Short articles, normally 750 to 1,500 words. This section can include the full gamut of professional topics so long as treatment of the subject is brief and concise. Again, please DOUBLE SPACE all manuscripts.
- **Letters:** Limit to 200 words or less and DOUBLE SPACED. As in most magazines, letters to the editor are an important clue as to how well or poorly ideas are being received. Letters are an excellent way to correct factual mistakes, reinforce ideas, outline opposing points of view, identify problems, and suggest factors or important considerations that have been overlooked in previous *Gazette* articles. The best letters are sharply focused on one or two specific points. Email submissions to gazette@mca-marines.org are preferred.
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Writing Tips: The best advice is to write the way you speak. Organize your thoughts. Cut out excess words. Short is better than long. Avoid abbreviations as much as practicable. Write to a broad audience. The key is to start with a thesis sentence or two and put the main idea up front.

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Rail Operations on the Rise

Training, mission accomplishment, and cost savings for the Marine Corps

by 1stLt Christina M. Rapp

There are limitless opportunities to employ rail operations. *(Photo by Cindy McIntyre.)*

Freight/passenger transportation and port/terminal operations, both subfunctions of transportation and logistics, consist of several diverse and systematic methods of throughput. Landing Support Platoon under Landing Support Company, 1st Transportation Support Battalion, executes all of these throughput methods with various levels of scope, limited opportunities, and limited resources. The 0481s—or landing support specialists—make up the bulk of the landing support community. Their individual training events include conducting the following: helicopter support team (HST) operations, rail operations, port operations, beach operations, and arrival airfield control group/departure airfield control group (A/DACG) operations. However, several 0481s in the Marine Corps lack experience and training for the individual event of conducting rail operations. Recently, 26 Marines participated in rail operations, and only one had prior experience. Many Marines have gone their whole career up to the rank of staff sergeant without any type of planning or execution of rail operations. This can be detrimental to their career path with the rail operation training event having a 12-month sustainment interval. Some may attempt to identify this as a leadership failure; however, the logistics community as a whole has not taken advantage of the limitless opportunities rail operations offer the Marine Corps. This article will encompass the benefits of rail operations including the evolution of rail operations, training opportunities for the 04XX logistics community, logistical efficiency, and immense cost savings for the Marine Corps.

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Critical points in rail history can be traced back to the North China Operation, January 1947, in which Marines from Headquarters Battalion, 1st Engineer Battalion, and 1st Motor Transport Battalion guarded the rail lines against communist attacks. The outbreak of civil war during the operation posed a serious threat and disruption to the main line of transportation between North and Central China. Marines guarding the Peiping-Mukden railroad enabled the transportation of coal to

the cities of Peiping, Tientsin, Tsingtao, Shanghai, and Nanking. Without the coal, the cities would have gone without light, heat, power, sanitation, and water.[1] Although the Marines filled a different role during the North China operation than a landing support specialist would today, this root in rail operation history highlights its impact for the transportation of critical supplies. Looking into more recent history, prior to Operation Enduring Freedom and Operation Iraqi Freedom, movements by rail were highly utilized by the Marine Corps. However, with the increase in funding for the war, commanders began using tractor trailers as the main method of transportation. Rail operations became almost nonexistent in the shadow of unlimited funds and tractor trailer transportation during Operation Enduring Freedom and Operation Iraqi Freedom. With recent budget cuts and lack of funds in the Marine Corps, rail operations are beginning to surface again with their logistical effectiveness in moving large amounts of equipment at low costs.[2] As stated in the MCLB Barstow article by Maj Donato S. Powell, Ms. Karen L. Gray, and Mr. Chad Hildebrandt, "Units are exploring methods to overcome challenging ways to maintain their readiness while reducing costs simultaneously."[3]

Presently, the Marine Corps' main involvement with rail operations resides at Marine Corps Logistics Base (MCLB) Barstow. The largest throughput node for rail operations, MCLB Barstow also offers outstanding training opportunities for the 04XX logistics community. Landing support specialists participate in an 80-hour rail operations training course, which is Marine Corps Training and Information Management System- and Training and Education Command-approved, in which they receive classroom instruction, on-the-job training instruction, and railroad operations training. 0431s—embarkers—can also participate in this training to learn how to build load plans. The first day consists of classroom instruction followed by another day of on-the-job training. Day two also includes load planning/building which greatly increases understanding of the embarkation process—another important part of an 0481s career as well as the integration of other 04XX MOSs. The Marines spend the remainder of the training executing the throughput process of rail operations. This includes the spanning of rail cars, uploading/downloading pieces of equipment, and supervising several operations within the rail yard. Unfortunately, as of now, the Marine Corps' involvement and training in rail operations has been limited to—but not bounded by—the 12-day rail operations course for landing support specialists. The necessity for more training in rail operations has also been recognized by MCLOG in the development of SNCOs and officers "in order to enable the integration of logistics and support training that will benefit the MAGTF's mission."[4] Currently, a training curriculum is being developed for the students at MCLOG to participate in training operations aboard MCLB Barstow.[5] Rail operations provide essential Marine Corps logistical effectiveness and crucial training for our 0481's MOS responsibilities.

Each training rotation at MCLB Barstow, facilitated by Mr. Chad Hildebrandt, the rail operations supervisor, conducts the movement of roughly 2,500 pieces of equipment. However, this large number of assets is predominately Army equipment in transit to/from the National Training Center (NTC) at Fort Irwin, CA. In February 2015, a detachment of 11 Marines from Landing Support Company conducted the movement of 2,599 pieces of equipment totaling 78,307,760 pounds. The Marines supported this movement of Army units from Fort Wainwright, AK; Fort Carson, CO; and Fort Bliss and Fort Hood, TX.[6] In March 2015, a detachment of 15 Marines conducted the movement of 2,386 pieces of equipment totaling 84,460,120 pounds of equipment.[7] For the movement of an entire regimental combat team consisting of (14) M1A1 Tanks, (27) LAV25s, (20) MTVRs, (48) AAVs, (6) M-777s, and (50) HMMWVs, truck cost would total $1,739,750 versus rail cost of $688,935. The potential cost savings between each movement totals $1,050,815.[8] The following numbers display the potential cost savings rail operations offer the Marine Corps. Of the 26 Marines who conducted rail operations in February and March, 25 of them had no prior experience. As proven by the data above, rail operations provide opportunities for huge cost savings utilizing low numbers of personnel and moving large amounts of equipment.

Within Camp Pendleton, many individuals have the misconception of rail operations being more expensive than movements with tractor trailers. However, this misconception comes from the sole fact that only one rail company pro-

Barstow is the largest throughput mode for Marine Corps rail operations. *(Photo by Cindy McIntyre.)*

vides service to Camp Pendleton. The rail company increases the cost due to the lack of competitors servicing Camp Pendleton. In order to mitigate this cost increase, the Rail Operations Team in Barstow can aid during the planning of unit exercises and training to provide coordination with the rail company. The Rail Operations Team from Barstow also provides a cost analysis for rail versus tractor trailer benefitting the planning process and supplying commanders with options; this cost comparison is created based off of the unit's equipment density list for the movement. Rail operations require more time to plan as the transit time can be days long instead of same-day transit; however, the cost benefits and efficiency outweigh the time for planning.

The Marine Corps, specifically I MEF, could expand its involvement with rail operations by assigning a 10–15 Marine detachment of 0481s, 0431s, 1345s, and possibly 0402s to MCLB Barstow on temporary duty for a 1- to 2-month rotation. The Marines aboard MCLB Barstow would significantly benefit from this continuous training opportunity and also ensure a well-rounded MOS career path. 0481s and 0431s would have the opportunity to gain much embark/debark experience as well. As rail operations are not compatible with the Integrated Computerized Deployment System, this would be highly beneficial training for load planning and building while ensuring our 04XX logistics community is properly integrated, challenged, and trained in embarkation/debarkation operations.

Camp Pendleton possesses the potential for immense growth in rail operations. Lemon Grove and Fallbrook each have a rail yard where uploading and downloading could be facilitated. However, each location lacks the personnel to span, chain, and supervise the railcars without paying thousands of dollars to contractors for accessorial services. Locating a subject matter expert aboard Camp Pendleton in order to kick-start the rail operations would greatly benefit this transition to rail operations. With the proper training and growth of knowledge among the 04XX community, rail operations aboard Camp Pendleton could be seamlessly conducted, saving the Marine Corps millions of dollars in the future.

There are potential savings of millions of dollars using rail transportation. *(Photo by Cindy McIntyre.)*

How are rail operations relevant to training exercises and present-day operations? Several units under I MEF conduct training in Twentynine Palms, CA and Yuma, AZ and spend thousands of dollars to transport tracked vehicles and heavy equipment. Expanding the rail operations' nodes would provide another avenue of transportation for movements to Twentynine Palms, the National Training Center, or even Yuma without the heavy cost of utilizing a tractor trailer. Rail operations can also greatly reduce the costs of special purpose MAGTF and MAGTF missions when traveling outside the continental United States from ports outside of the local area as well as receiving gear from in theater. This would sufficiently decrease costs in contracting tractor trailers for large exercise movements, support well-rounded career paths for the 04XX logistics community, and provide overall logistical efficiency for the Marine Corps. The Marine Corps possesses a highly efficient, underutilized, and inexpensive method of transportation. The Marine Corps must pull from the cost effective and available resources in order to provide thorough, efficient, and systematic push logistics to all supported units. Why not take the advantage of rail operations in order to accomplish this?

Notes

1. Robert A. Churley, "The North China Operation," *Marine Corps Gazette* (Quantico, VA: November 1947) archives, accessed at https://www.mca-marines.org.

2. Donato Powell, Karen L. Gray, and Chad Hildebrandt, "MCLB Barstow: Logistics capability and training," *Marine Corps Gazette*, (Quantico, VA: January 2015), accessed at https://www.mca-marines.org.

3. Ibid.

4. Ibid.

5. Ibid.

6. Chad Hildebrandt, "After-Action Report – MCLB Barstow Rail Operations Training Class 15-05," Marine Corps Logistics Base Barstow, (Barstow, CA: 2005).

7. Chad Hildebrandt, "After Action Report – MCLB Barstow Rail Operations Training Class 15-06," Marine Corps Logistics Base Barstow, (Barstow, CA: 2006).

8. Chad Hildebrandt, "Rail Operations – Cost Savings," Marine Corps Logistics Base Barstow training pamphlet, (Barstow, CA: January 2015).

Logistics Command and Control

CLC2S in a garrison environment

by Capts Andrew Schaffer & Nick Borns

"All logistics systems have two fundamental elements: a distribution system, made up of bases and distribution procedures, and command and control."

–MCDP 4, Logistics[1]

Walk into any combat operations center and you will see a diligently working staff surrounded by radios, big screen televisions, monitors, maps, and charts displaying various types of information from personnel numbers to significant events. In this booming technology age, the ability to capture raw, real time information has allowed commanders and higher headquarters to maintain situational awareness on the battlefield like never before. Watching the live feed from a Raven or monitoring troop movements over a blue force tracker allows commanders to utilize intelligence to seize fleeting opportunities that can tip the scales of an engagement in their favor. The Marine Corps leverages the use of these technologies to assist commanders in the control of maneuver, fires and effects, intelligence, and force protection, but we tend to ignore the warfighting function that can determine victory and extend operational reach in a conflict: logistics.

Talented commanders and all logisticians understand that every Marine is a rifleman, but his effectiveness and operational reach is a function of transportation, supply, health services, maintenance, general engineering, and services. Discovering the multitude of requirements just to get into and prosecute operations is just the beginning. Command and control of logistics enhances the effective employment of resources on the battlefield. Although logistics command and control is often ignored and the practices are archaic, the Marine Corps already has a program of record and the tool in place; that tool is called the Common Logistics Command and Control System (CLC2S). CLC2S is a tactical, web-enabled logistics information management system designed to provide MAGTF commanders and logisticians with capabilities to plan, request, monitor, and command logistics resources in order to achieve operational and tactical logistics situational awareness of the battlefield.

Young logisticians have learned many different procedures and methodolo-

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A T5 Caterpillar D9 bulldozer passes a CLC2S during MPF offload in South Korea. *(Photo by Sgt Justin A. Bopp.)*

gies for tasking and requesting logistics support. During high tempo or kinetic operations, Marines rely on handwritten documents from field notebooks built from taking reports over radios. Once operations transition to slower stabilization and support operations, spreadsheets developed by the computer-savvy take over. During these later phases of a conflict, logistics command and control eventually gets formalized using local documents, giving off the impression that they are official documents. From the logistical support request and tactical movement request to automated message handling system messages and email traffic, each unit seems to have a different way of formally requesting and providing logistics support. CLC2S is a standardized system that the Marine Corps already has in place, and one which Marines coming to your unit will already understand and have working knowledge of. For some odd reason, we just don't like using this program and it has faded from use.

Why We Never Really Adopted CLC2S

While many commanders desire a comprehensive and realistic concept of support, they rarely pay much attention to it, especially when competing for air time with the concept of operations. Logistics is not the function that wins firefights, but it is crucial in deciding the achievement of both operational and strategic objectives. And yet, it is assigned the lowest priority for command and control system development, fielding, training, and refinement. True logistics command and control uses comprehensive data from a variety of sources, accessible by a communications and information system architecture. This communications architecture must allow users to interact with the system and request and coordinate service support—which means it needs bandwidth.

In expeditionary environments, bandwidth is shared with operational and intelligence data, which commanders assign a higher priority than logistics. The result is that in a tactical environment, logisticians have relied on manual coordination via white boards and voice communications, in conjunction with several legacy stovepiped supply and maintenance systems that can be used in theater. This dispersion of logistics data leads to an inaccurate and out-of-date common logistics operating picture, hampering effective command and control decision making. Utilizing these untimely methods of command and control causes logisticians to work primarily in a reactionary mode, leaving commanders with no ability to influence logistics. In the garrison environment, an environment that we now find ourselves in more due to the drawdown in Iraq and Afghanistan, the major subordinate elements of the MAGTF are on an equal playing field. The limitations of field communications do not exist. If anything, the need for a more accurate common logistics picture is greater due to our posture as a force-in-readiness, with multiple SPMAGTFs and crisis response forces being created to respond to developing crises around the globe.

While many commanders desire a comprehensive and realistic concept of support, they rarely pay much attention to it, especially when competing for air time with the concept of operations.

What Does CLC2S Really Get Me?

CLC2S has multiple functions and tools built into it, but the best and most relevant tools include Enhanced Combat Service Support Operations Center/Combat Operations Center System (ECS), Rapid Request Tracking System Plus (RRTS+), and Logistics Planning and Execution (LOG P/E).

The ECS provides asset and inventory management capability, with the ability to view and edit the status of personnel, equipment, and supplies at the asset level. It is the combat service support operations center's version of command post of the future-like systems. Units in a headquarters can see assets that are available in their subordinate units, and they can appropriate limited assets, delegate tasks, or assign missions that suit the capabilities of their units without blindly tasking. ECS provides the ability to integrate transactional activity with logistics capability.[2]

The RRTS+ provides request management and order management functionality, in which users can request supplies and services as well as monitoring the status of submitted requests. This serves as a single point of entry for generating requirements by a unit, allowing all requirements to be properly vetted before submission and giving higher headquarters the ability to appropriately prioritize requests. Duplication of efforts are limited using this tool, and best of all, knowledge on this process is transferable between units. In the true spirit of the MAGTF, units unknown to each other can be placed together and have the ability to gain mutual understanding of each other's assets and the process for requesting additional support.[3]

The LOG P/E tool provides the ability to capture unit readiness and aid in CSS mission planning. It assists staffs in determining requirements for a mission and allows for development and analysis of courses of action. Supported units can have a better understanding of their logistical requirements prior to executing missions, and supporting units will better understand the concept of operations as it relates to logistics. Commanders also have the ability to define and insert system alerts when asset status approaches or falls below designated criteria, allowing a commander to execute "pull" logistics prior to his assets limiting his ability to continue operations.[4]

Conclusion

In an era of scarce resources and the demand to run at peak efficiency, the Marine Corps has an opportunity to

improve processes unlike any other. Marine Leadership can capitalize on the scarcest of all resources—time—with a system that is already in place. As the Corps transitions from the Force Structure Review Group to the Quadrennial Defense Review Integration Group to the 175,000 structure, the resources and time left to commanders will be even more precious. It is unlikely that operations tempos will accompany the structural drawdown. Efficiency gained by employing CLC2S in a training, garrison, field, and forward deployed environment will not only allow leaders to have a better understanding of their own unit's capabilities, but also allow them to focus on other priorities that are constantly competing for their time.

In addition to the clarity of capabilities gained by commanders, the use of CLC2S in a garrison environment will facilitate the effective use of limited resources to support operations. By training Marines in the usage of one core system, the Marine Corps does not have to require multiple training events for systems that are used in different settings, and the inevitable rotation of Marines who gained proficiency in asset requesting and management will not be seen as a total loss to a unit.

The enforcement and use of CLC2S will create a standardized method of providing logistics command and control, no matter the environment. By ensuring that there is a smooth transition between garrison and deployed logistics management, units will be able to overcome the initial friction of deployment, reception, staging, onward movement and integration, and maneuver due to the fact that logistics Marines are familiar with the system that facilitates logistics functions to supported units. CLC2S is an efficient, time saving, and helpful tool that will provide commanders the ability to exercise command and control of the most important function of warfighting in situations that transcend environment; the Marine Corps already has the system in place.

Notes

1. Headquarters Marine Corps, *Marine Corps Doctrinal Publication 4 (MCDP–4), Logistics*, (Washington, DC: 1997).

2. Marine Corps Systems Command, *Common Logistics Command and Control (CLC2S) Desk Reference Guide*, (Washington, DC: 2008).

3. Ibid.

4. Ibid.

The Past, Present, and Future of Food Service

Supporting the changing needs of the MAGTF

by WO1 Bryan Baker & CWO3 Damian A. Sullivan

Mission Statement: The Marine Corps Field Feeding Program consists of the right mix of personnel, rations, equipment and training in order to support the Marine Air Ground Task Force commanders' expeditionary maneuver warfare and peacetime feeding requirements.

–MCRP 4-11.8A
Marine Corps Field Feeding Program[1]

The goal for every food service Marine in our ranks is fairly simplistic: provide safe, timely, adequate, and flavorful meals to servicemembers in every clime and place. Achieving this goal however, is anything but. While we have the equipment necessary to meet the mission, personnel are becoming hard to acquire. With budget constraints as well as civilian counterparts being used as a justification for the downsizing of food service, senior leaders are being forced to become more creative with the employment of their Marines and equipment. Food Service's expeditionary focus in accordance with *Expeditionary Force 21* is to maximize organic capabilities and limit contracting while sustaining the force with Meals Ready-to-Eat and unitized group rations (UGRs).

Current Capabilities

Food Service Company, Headquarters Regiment, owns a diverse gear set utilized to execute what most would argue is our primary function in the Marine Corps: expeditionary field feeding. Based upon the size of the force that needs support and the type of environment in which we will be operating, Marines of Food Service Company can tailor the capabilities set employed to fit the operational vision of commanders and the needs of their Marines and sailors.

By far, the most readily deployable field feeding piece of equipment is the Tray Ration Heating System (TRHS), which is a fully mobile system with "heat on the move" capabilities. With all of its SL-3 (stock list) components, the TRHS is capable of providing 250 portions of hot chow utilizing UGR heat-and-serves (H&S) in about 40 minutes and can do so with only three food service Marines. It runs on diesel fuel and has the ability to be powered by a converter box attached to a HMMWV. But these things alone do not make the TRHS our most expeditionary piece of gear. What makes the TRHS highly expeditious is the fact that it provides a "true" mobile feeding capability. Gone are the days of a linear battlespace where Marines could cook chow toward the "rear" of the engagement and push it forward. The Marine Corps' expeditionary mindset and constant offensive approach to engagements require supporting units to move with the ebb and flow of the conflict. With a TRHS strapped in the back of a HMMWV, food service Marines can prepare chow while moving with the supported unit. In a 24-hour period, one TRHS is designed to feed 500 Marines and sailors with enhancements (i.e., fresh fruits and vegetables) while

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Food Service Company, 1st MLG. *(Photo by LCpl Lauren A. Falk.)*

remaining minimally static and support several units that may not even be in the same battlespace as one another.

The newest piece of gear that Food Service Company has is the expeditionary field kitchen.

The Enhanced Tray Ration Heating System (E-TRHS) is the mid-level equipment set that can feed 350 Marines and sailors two meals a day. It is a TRHS with a Small Field Refrigeration System which provides cold storage in a static location with continual replenishments and enhancements. Although the refrigeration system is typically static, the TRHS can still be mobile with a HMMWV.

The newest piece of gear that Food Service Company has is the expeditionary field kitchen (EFK). The EFK is an ISO container in an expandable configuration mounted on the MCC-20 trailer pulled by an MTVR 7-ton. With six Marines, an EFK can be operational within 45 minutes to enable cooks the ability to produce 750 meals twice a day. What makes the EFK different from our other field feeding equipment is the array of cooking techniques and menus it can support. Inside the EFK, there are two TRHSs, two convection ovens, two tilt braisers, and a three-compartment sink to clean necessary equipment and utensils. While the TRHS is designed to prepare UGR H&Ss, the EFK can boil, bake, steam, braise, simmer, sauté, and fry. The Babington Airtronic Burner is the heat source for both the TRHS and the EFK, making both systems work harmoniously and eliminating the need for several different maintenance kits and fuel sources. With the addition of Small or Large Field Refrigeration Systems, Marines and sailors can enjoy a wider variety of meals augmented by fresh fruits, vegetables, meats, and dairy products. The EFK requires the support of an MEP 803A generator and a generator mechanic to supply power to both the EFK and the refrigeration systems. Additional requirements needed are a potable water source and grey/black water removal system utilizing a Water Six Container Storage Tank Module (SIXCON) or water bladder. That is not to say that the EFK does not fit the expeditionary nature of the Marine Corps; it only illustrates that each piece of gear in the food service repertoire is best suited to certain types of missions. The TRHS helps Marines secure a foothold in a battlespace, and the EFK promotes the longevity of sustained operations while also having mobile flexibility.

Food being prepared in the field. *(Photo by 1stMARDIV Food Service Office.)*

Manpower

In fiscal year 2013, Food Service Company had a table of organization of 197 Marines. During fiscal year 2014, that number dropped to 163 Marines. During fiscal year 2015, the table of organization strength is 135 Marines. With a reduction of over 60 Marines over a three-year period, Marines have continued to maintain equipment field-

Quantico Mess Hall, 1940. Food service has come a long way from covered and aligned cups and plates. *(Photo provided by History Division.)*

ed when the table of organization was 197 Marines. Food Service Company Marines support a large majority of field exercise and deployment within 1st MLG and also 1st MARDIV above its organic capability, which often results in a large number of food service personnel either deployed or in a temporary additional duty status supporting local field operations such as Weapons and Tactics Instructors Courses (WTIs), MEF Exercises, command post exercises, and world-wide deployments in support of the MEUs and special purpose MAGTFs, all while maintaining $8 million worth of field feeding equipment. In addition to expeditionary field feeding requirements and maintenance of equipment, Food Service Company Marines also have a garrison mess hall mission to provide 32 cooks in support of the Regional Garrison Food Service Contract to maintain their core competencies while preparing meals for roughly 1,200 patrons a day, seven days a week. With the table of organization and equipment unbalanced, Food Service Company continues to fulfill the regimental commanding officer's intent for personnel and equipment readiness.

The Way Ahead

Marines do more with less, and we never back down from a challenge. Food Service Marines are constantly trained and tested, ensuring that the knowledge necessary for continued field feeding success is ingrained in each and every one of them. Senior food service leaders are working each day, briefing commanders on equipment and personnel capabilities in support of the Marine Corps Field Feeding Program. With continual support from all levels throughout the MAGTF, the food service community and commanders can continue to promote mission success no matter the size or shape of the area of operations. The battle for personnel structure is an ongoing one, and food service is working hard to ensure we have a seat at the table when the decisions are made. New equipment is constantly in the works in an attempt to better support the changing needs of the MAGTF and the scope and tempo of its missions. In a world where operations are king, food service will be ready to support wherever and whenever we are called upon.

Note

1. Marine Corps Combat Development Command, *Marine Corps Reference Publication 4-11.8A (MCRP 4-11.8A), Marine Corps Field Feeding Program,* (Quantico, VA: June 2015).

USMC

Merge Combat Camera and Public Affairs

Achieving communication synchronization and professional recognition of two similar MOSs

by Capt Nicole Fiedler

>Capt Fielder is a public affairs officer. She wrote this article when she was a student at Expeditionary Warfare School. Capt Fielder is currently assigned to the Office of the Marine Corps Communications at the Pentagon.

In a July 2011 executive offsite decision brief regarding public affairs (PA) structure courses of actions, it was briefed that despite radical changes to the information environment since Operation Desert Storm, the Marine Corps has not adapted its principal communication capabilities (Public Affairs/Combat Camera) to respond to this change, resulting in missed opportunities, a lack of understanding of the Corps' value to the Nation, and risk to the Corps' reputation.[1]

Additionally, there exists a Marine Corps-wide misunderstanding of the roles and missions performed by combat camera (COMCAM) and those of PA. Most Marines mistakenly believe that COMCAM and PA are the same because of similarities in job performance; any Marine with a camera in hand is generally classified as being PA.[2] Despite these similarities, both MOS fields remain separated and are structured under different chains of command, causing significant capability redundancies and loss of communications synchronization. The occupational fields of COMCAM and PA should merge to eliminate capability redundancies, achieve professional recognition of Marine Corps communications, and increase efficiency by employing both occupational fields to the full extent of their capabilities in traditionally low-density, high-demand fields.

In examining how a merger should take place, the roles and missions of COMCAM and PA must be understood. By definition, COMCAM is

> organized and structured to provide commanders at every element of the Marine Air Ground Task Force, training commands and supporting establishments with digital and physical photographic, video, graphics, printed products and archival capabilities to support requirements in order to achieve the Commander's desired effects.[3]

While PA provides support to the commander through similar means, the target audience often differs from that of COMCAM. PA is responsible for effective communications with the U.S. public and international audiences and, therefore, must maintain credibility with their audiences.[4] According to Department of the Navy Public Affairs Policy and Regulations, "Accurate, truthful and timely information will be made available to the public, the Congress and the news media to help in the analysis and understanding of defense strategy and national security issues."[5] COMCAM, however, often provides support for a much wider range of requirements such as military information support operations (MISO), military deception (MILDEC), and intelligence.[6]

For a merger to be successful, several steps must take place. Initially, COMCAM and PA should continue to maintain their respective MOSs as each provides distinct capabilities for mission accomplishment, but portfolio evaluations should take place to determine which MOSs can consolidate in the future. To mitigate structure shortages within both occupational fields, public affairs officers (PAOs) should assume management responsibilities of a merger, and both PA and COMCAM

Combat Camera official logo. *(Photo provided by HQMC Combat Camera.)*

PAs take the photos used in newspapers and magazines. *(Photo by Sgt Matthew Troyer.)*

officers should receive additional formal education at the Defense Information School (DINFOS) to learn how to employ Marines of each occupational field. Finally, cross-training for all Marines within the Operating Forces and at the Supporting Establishment once a merger has taken place is paramount to ensuring a seamless transition and efficient conduct of operations.

Although there are certain MOSs within COMCAM that provide a distinct capability to accomplish the mission, redundancies—specifically those in imagery acquisition—can be eliminated by an MOS consolidation with PA. The most apparent capability redundancies occur between the 4313 (broadcast journalist) and 4671 (combat videographer), and the 4341 (combat correspondent), and the 4641 (combat photographer). Often, Marines from each occupational field are sent to collect imagery from the same event, an inefficient use of manpower, time, and resources. This inefficiency is magnified at the operational level where there is limited space to embed nonorganic personnel for imagery acquisition. As a result, COMCAM and PA compete for time, space, and resources while gathering similar products, promoting a stovepiped model instead of an integrated effort that maximizes a capability for the commander. As technology advances, improving both still and video imagery acquisition—and ultimately production that directly impacts communication with target audiences—the convergence of these MOSs within COMCAM and PA will only increase.

In addition to these redundancies, there are structure shortages within SNCO and officer ranks of COMCAM[7] and PA[8] that could be mitigated by merging the fields. The authorized strength report for the PA community (4300 series) is currently 399 enlisted Marines and 96 officers,[9] whereas the COMCAM community (4600 series) contains 393 enlisted Marines and only 21 officers, all of whom are limited duty officers and warrant officers.[10] The low density of officers and SNCOs within COMCAM, in addition to the Marine Corps force structure drawdown which places "fewer COMCAM Marines at the division"[11] requires that "it will be even more important to manage the manpower so that very junior COMCAM Marines are not put in such a leadership position without additional experience or training."[12] This concern can be mitigated by PAO management, augmented by COMCAM officers and SNCOs serving in a subject matter expert role. As a result, PAOs serve as the commander's advisor, focused on future plans—research, planning, and evaluation—and the employment of Marines to meet the communications requirement, while the cross-trained COMCAM officers focus on current operations and training.

If PAOs assume management responsibilities, they need additional training at DINFOS to gain a comprehensive understanding of COMCAM. Currently, to receive the 4302 designator, PAOs must complete the Public Affairs Qualification Course (PAQC), which contains subcourses in theory and doctrine, community relations, internal information, multimedia, media relations, communications skills, public affairs operations, course administration, and a field exercise.[13] The DINFOS also offers a Combat Camera Leadership Course which offers instruction in Combat Camera Unit Operations and Course Administration.[14] Currently, this course is only available to 4602 COMCAM officers and 46XX (combat camera chiefs) staff sergeant or above.[15] If prerequisites for Marine Corps attendees were changed to allow 4302s to attend, this would add only 10 days to their training pipeline.[16] COMCAM officers and SNCOs should also attend PAQC in turn to gain an understanding of the PA occupational field.

To enable a successful merger, cross-training for enlisted Marines in both occupational fields within the Operating Forces and at the Supporting Establishment is also required. Cross-training ensures Marines are

If PAOs assume management responsibilities, they need additional training at DINFOS to gain a comprehensive understanding of COMCAM.

technically and tactically proficient in imagery acquisition to meet the commander's communications requirements. The advantages of cross-training have already been demonstrated by the 26th MEU during their deployment in July 2013.[17] "Cross-training is a huge benefit; we have a relatively small shop, even combined with both PA and Combat Camera, to cover the 2,400 Marines and sailors with the MEU,"[18] said Capt Lucas J. Burke, PAO for 26th MEU, as quoted in a Marines.mil article:

> At any time, any one of us may be grabbed to take photos, provide media escorts, or conduct an interview. The end state is the same: document our operations and convey them to a wider audience, but I try to keep strengths within each MOS if time and personnel allows.[19]

While there are many advantages to merging COMCAM and PA, COMCAM leadership has previously argued that a merger of the occupational fields would not provide better support to Marine Corps missions.[20] Because of the distinct requirements that COMCAM supports, they believe a merger is not ideal because of the different training that Marines in the two fields receive and the different audiences they are trained to reach.[21] In addition, it is argued that COMCAM provides support for a wider variety of requirements such as MILDEC, MISO, and intelligence while PA is limited by doctrinal constraints in certain situations.[22]

... PA is limited by doctrinal constraints in certain situations.

HQMC recognized the potential efficiencies of merging the occupational fields: the COMCAM proponent was "recently reorganized from Training and Education Command to the Office of Marine Corps Communication."[23] Despite the argument by COMCAM that their requirements are distinctly different, particularly in supporting and enhancing information-related capabilities through imagery acquisition, the issue is not what products are collected but instead centered on how it will be used. Through a communications process that complements the Marine Corps Planning Process and ultimately leads to a communications plan, PAOs and others responsible for information-related capabilities determine what products (written and visual) are required to meet a communications objective. Regardless of the requirement, the process of imagery acquisition by individual COMCAM and PA Marines is the same.

A public affairs guidance brief. *(Photo courtesy of 26MEU Public Affairs.)*

In conclusion, there is efficiency gained by merging PA and COMCAM at HQMC, within the Operating Forces, and at the Supporting Establishment. To achieve synergy in meeting the commander's communications requirements, Marines in each occupational field should receive in-depth cross-training on how to collect imagery for a variety of requirements and market their products for multiple target audiences. PAOs and COMCAM officers should also receive additional instruction at DINFOS to better understand the requirements of each occupational field. If PAOs assume management responsibilities of a merger, this allows the limited number of COMCAM officers and SNCOs to focus on providing subject matter expertise to the PAO. Looking to the future, a thorough evaluation of each occupational field's portfolio must occur and consolidation of the 4313 and 4671, and the 4341 and 4641 must be considered.

As technology and modernization continues to drive these two occupational fields closer together, eliminating capability redundancies is essential to meeting the requirements and demands of the 21st century information environment. Aligning these two fields is consistent with the enduring principles as set forth in the *36th Commandant of the Marine Corps Planning Guidance* that "…as a Corps, we also remain committed to constantly improving the quality of our manning, training, and equipping efforts and our resultant warfighting capability."[24] The desired end state of merging two similar occupational fields is more efficient accomplishment of the mission in two low-density, high-demand fields, and achieving Marine Corps-wide professional recognition of the capabilities of both PA and COMCAM Marines.

Notes

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2. Ann Miller, et al., *Combat Camera Support to Marine Corps Missions,* (Washington, DC: Center for Naval Analyses, 2012), 19.

3. Headquarters Marine Corps, *Marine Corps Order 3104.1B, Marine Corps Combat Camera Program,* (Washington, DC: 2011), 2, accessed at http://www.marines.mil.

4. U.S. Department of the Navy, *SECNAVINST 5720.44C, Department of the Navy Public Affairs Policy and Regulations,* (Washington, DC: 21 February 2012), 1-1, accessed at http://doni.daps.dla.mil.

5. Ibid.

6. Marine Corps Combat Camera, Marines.mil, accessed at http://www.hqmc.marines.mil.

7. Miller, 57.

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9. Total Force Structure Management System, 4300 MOS. Downloaded 22 January 2015.

10. Total Force Structure Management System, 4600 MOS Pull, 27 February 2014.

11. Miller, 58.

12. Ibid.

13. Director, Defense Information School (DINFOS), "Training Program of Instruction for DINFOS PAQC [Public Affairs Qualification Course], (Fort Meade, MD: 2014), accessed at http://www.dinfos.dma.mil.

14. Ibid.

15. Ibid.

16. Ibid.

17. Cpl Kyle Runnels, "Connecting the World to the MEU: Public Affairs and Combat Camera," Marines.mil, 2 August 2013, accessed at http://www.marines.com.

18. Ibid.

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21. Ibid.

22. Ibid, 9.

23. Combat Camera Roadmap, Marines.mil, accessed at http://www.hqmc.marines.mil.

24. Gen Joseph F. Dunford, *36th Marine Corps Commandant's Planning Guidance*, (Washington, DC: HQMC, 2014), 2, accessed at http://www.hqmc.marines.mil.

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