



Marines and Sailors,

“World class leaders are world class learners.” Former Clorox executive and Marine, Don Knauss, spoke these words earlier this year at a ribbon cutting for the AI and Jan Gray study at Marine Corps University. The Marine Corps has long valued professional military education (PME) as a critical and fundamental enabler inherent in the profession of arms. Yet, in today’s challenging world of near-peer competition, we understand now more than ever that the discriminator on the battlefield will not be determined by the pace of our muzzles but by the pace of our minds. Unfortunately, we are not alone in our efforts to transform the force. Near-peer competitors like China are also pivoting toward a highly technical military force-in-readiness. Our 38th Commandant noted, “As our technical advantage continues to erode, it will become even more critical for our forces to maintain our edge in both individual decision-making and unit competence.” Our aim is to produce the most professionally competent, critically thinking warfighter as possible.

The Marine Corps’ educational enterprise is in a period of transition because of the DOD, the Joint Staff, the Department of the Navy, and the Marine Corps’ educational efforts. The *Commandant’s Planning Guidance* was clear in tasking Marine Corps University (MCU) to expand enlisted PME, bolster individual self-study and self-improvement opportunities, increase coverage of naval integration and wargaming, as well as to make PME as academically rigorous as possible and no longer consequence free—all of which have been successfully implemented and or expanded upon over the past two years. As you will see in the articles to come, MCU is pursuing big changes in PME not only across the Service but across the entire DOD enterprise.

Talent Management 2030 further expounds on the need to broaden educational opportunities to develop the force. Today, MCU is moving forward with several initiatives to modernize enlisted PME to include completely revamping promotion requisite E8 PME and establishing a brand new E9 course for sergeants major and master gunnery sergeants serving for the first time at the general-officer level. Regarding the need for self-study and individual improvement, MCU has also expanded its opportunities for our top performers to truly challenge themselves, ranging from extracurricular enrichment activities and fellowships to micro-credentialing and broader scholars’ programs.

The *Commandant’s Planning Guidance* underscores the imperative for creating a comprehensive wargaming capability at MCU. In the pages to come, you can read about MCU’s build out of a world-class wargaming capability via the Wargaming Cloud that will be delivered to all resident and non-resident PME. In his planning guidance, the Commandant wrote, “wargaming needs to be used more broadly to fill what is arguably our greatest deficiency in the training and education of leaders: practice in decision making against a thinking enemy.” MCU’s wargaming program exercises military judgment and decision making that is grounded in an understanding of the principles of war, the dynamics of modern warfare, and the application of military capabilities across the range of military operations and scenarios. Cultivating this judgment through experiential learning and educational wargaming is one of the most effective ways we can serve our future warfighters.

MCU is honing its officer and enlisted PME continuum to promote rigorous standards for achievement, value superior instructional capacity, build professional military leaders, and ensure Marine cognitive and intellectual talents are maximized, documented, and leveraged to the greatest extent possible throughout the force. For the first time at MCU, fitness reports were observed for resident PME and fellowships this past academic year. MCU is a key stakeholder for identifying high intellectual performers and future strategic leaders. PME is an iterative touchpoint along the entirety of a Marines' career, which means we possess the opportunity to capture academic profiles over time and assess not only academic performance but feedback from the commanders and supervisors of our graduates.

Finally, an initiative catapulted by the Secretary of the Navy's directed educational oversight is a widened role for the University in naval integration. As of November 2020, MCU is now part of the Naval University System, comprising the U.S. Naval Academy, the Naval Postgraduate School, the Naval War College, MCU, and the recently established Naval Community College. There is potential for this to be a significant step forward in cross-service Blue/Green interoperability and broadened educational opportunities for enlisted Marines and sailors to attend programs in support of the *Naval Services'* warfighting and leadership development needs.

Our PME programs provide rich curriculum that cognitively prepares students for war; preparation for war always has been and will remain MCU's focus. This means active, realistic, and experiential learning to develop critical thinking and sound military judgment. As we prepare the next generation of warfighters, it is crucial that we seize the opportunity to widen the intellectual gap between us and our adversaries. This means a focus on active learning with ample opportunity to fight (and fail) against a thinking enemy. The 29th Commandant's comprehensive reforms to professional military education created what has become *DOD's premier warfighting university*. Still, MCU must continue to evolve to keep pace with an ever-changing operating environment. We will.



Brigadier General Walker M. Field
Commanding General, Education Command
President, Marine Corps University

PME

Navigating a new course

by The Staff of Marine Corps University

The Marine Corps has long valued professional military education (PME). However, in response to what has been characterized as weakness across the entire PME enterprise by senior leaders, significant attention has been brought to bear by the DOD, the Joint Staff, the Department of the Navy (DON), and the Marine Corps on the Services' educational efforts. As a result, the Marine Corps' educational enterprise is in a period of transition; this article describes some of the major changes affecting the way the Corps educates the force and details the road ahead.

DOD initiatives

The DOD is developing *DOD Instruction 1322*, composed of several volumes, each containing direction and guidance on various aspects of DOD educational efforts. This DOD Instruction requires Marine Corps University (MCU) to incorporate outcomes-based military education (OBME) in its programs and requires annual reporting for all MCU schools—officer and enlisted, resident and distance.

ing graduates who can *do and know* certain things. We assess student performance on those outcomes (related to leadership, warfighting, military history, planning, communication, and critical and creative thinking) and revise our curriculum regularly to ensure that our educational programs are teaching to those outcomes effectively.

Additionally, in an effort to enhance PME as a strategic partnership building tool, the Secretary of Defense has directed a 50 percent increase in international military students within Service PME programs by 2026, along with developing an alumni engagement capability. MCU is working to develop the capacity needed to support this growth and welcomes the valuable contributions our allies and partners make to our educational environment.

Chairman, Joint Chiefs of Staff (CJCS) Initiatives

In May 2020, CJCS revised *CJCSI 1800.01, Officer Professional Military Education Policy (OPMEP)*. This latest OPMEP mirrors the change to OBME in the development, delivery, and assess-

College provides JPME-II credit. As would be expected, the Marine Corps is “first to fight,” and MCU’s JPME programs have successfully met the first milestone in the new joint accreditation process. The revised OPMEP begins implementation of the goals expressed in *The Joint Chiefs of Staff Vision for Professional Military Education & Talent*. The joint vision describes the critical linkage between officer development via PME to create intellectual overmatch against adversaries, and proper utilization via talent management to reward intellectual development and recognize performance with challenging assignments. These changes are applied to the Marine Corps as articulated in *Talent Management 2030*.

Similarly, in November 2021, CJCS released a new *CJCSI 1805.01C, Enlisted Professional Military Education*, which also shifts enlisted JPME to an OBME approach with emphasis on student achievement of course learning outcomes in support of the enlisted PME and Talent Management Vision, *Developing Enlisted Leaders for Tomorrow’s Wars*.

DON Initiatives

In the last three years, the DON has made significant changes to the way it oversees and manages education, to include PME, within and across the Department. Informed by the Secretary of the Navy (SecNav) Education for Seapower study, the DON has engaged in extensive efforts to strengthen its officer and enlisted educational efforts.

As a result of the Education for Seapower study and initial efforts to implement its recommendations, SecNav has assigned oversight of the department’s educational efforts to the Assistant Secretary for Manpower and

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While the reporting requirements are new for some MCU programs, MCU has taught to outcomes since it became accredited by the Southern Association of Colleges and Schools Commission on Colleges in 1999. This means that MCU’s curricula are geared to produc-

ment of curriculum and student achievement and establishes a new process to gain and maintain joint accreditation. MCU has three JPME programs—the Command and Staff College resident and distance programs provide JPME-I credit and the Marine Corps War

Reserve Affairs. A developing concept is the Naval University System, comprising the U.S. Naval Academy, the Naval Postgraduate School, the Naval War College, MCU, and the recently established Naval Community College (NCC). In February of this year, SecNav established a Naval Education Task Force consist-

Marine Corps Initiatives

Marines are already aware of the emphasis the Commandant has placed in his Planning Guidance on increasing academic rigor within PME programs. *Talent Management 2030*, published in November 2021, further expounds on the need to broaden educational op-

... the NCC is developing several associate degree programs in support of the Naval Services' warfighting and leadership development needs.

ing of senior retired naval (Navy and Marine) personnel and experienced civilian members from academia and management fields to examine how to improve PME across the Naval Services, with an emphasis on reducing duplication of effort and improving graduates' performance. The task force owes its report to SecNav in June.

The establishment of the NCC is a significant step forward in enhancing educational opportunities for enlisted Marines and sailors. Headquartered within MCU's main campus aboard Marine Corps Base, Quantico, the NCC is developing several associate degree programs in support of the Na-

portunities to develop the force. A complementary publication, *Training and Education 2030*, is under development and when promulgated will further refine the approach the Marine Corps will take in achieving the JCS vision described above.

MCU Response

MCU has been heavily engaged with all these efforts and, in some areas, has even been ahead of the other Services and departments. As noted above, MCU has long used an outcomes-based approach to assessing all of its educational programs, and thus the shift to OBME has not required a major adjustment

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val Services' warfighting and leadership development needs. Initially, those degrees will be conferred by partner institutions, but the NCC has received Congressional approval to grant degrees and upon achieving accreditation will become the degree-granting institution. Enlisted Marines are already enrolled in the NCC's pilot programs and early indications suggest that this will provide a valuable learning opportunity for the enlisted force.

to its practices. Whatever challenges are presented by these initiatives, and however, they may develop in the future, the focus of effort will remain on addressing the intellectual and professional development needs of the Marine Corps and the joint force in support of the Nation's defense and interests.



CJCSI 1800.01, Officer Professional Military Education Policy (OPMEP).



CJCSI 1805.01C, Enlisted Professional Military Education.



Talent Management 2030.



Education for Seapower.

The Future of Marine PME

Supporting future Force Design and talent management

by LtCol Erin Berard

With the accelerating pace of change in the 21st century, Marine lethality requires lifelong learning and the ability to acquire new skills quickly. *Force Design 2030* calls for change in response to the shift in the Marine Corps' mission focus to great power/peer-level competition, with special emphasis on the Indo-Pacific. The shift necessitates a comprehensive review of not only our Service's size, configuration, and technological capacity but also has prompted us to take a hard look at our individual warfighter's core cognitive characteristics. The physical and mental toughness, tenacity, initiative, and aggressiveness required to win in close combat have long been a prerequisite to earning the title of Marine. In recent decades, the technological boom forced us to build on technical skill sets and add occupational specialties that can concentrate power to innovate, adapt, and succeed. Today, the focus is increasingly on prioritizing our intellectual strategic edge against competitors and adversaries.

Force Design 2030 set the tone for how the force would transform to adapt, remain relevant, and outmaneuver our adversaries. In November 2021, the Commandant published his *Talent Management* report, charting a new course for personnel management. *Talent Management 2030* describes a system of institutional processes and policies designed to attract, develop, retain, and incentivize the most talented and best performing Marines. Similarly, *Force Design 2030* requires a meaningful change in how the Corps educates Marines. In response, we will reinforce and modernize the Marine

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Corps' education enterprise to maintain our effectiveness as the Nation's naval expeditionary force-in-readiness while simultaneously transforming the force for the future operating environment. Professional military education (PME) is an investment in our people and provides the service with the architecture necessary to build Marines who are cognitively agile, intuitive problem solvers equipped with the knowledge and broad range of skills required to thrive in a complex multi-domain battlespace. To this end, Marine Corps University (MCU) is honing its officer and enlisted PME continuum to promote rigorous standards for achievement, value superior instructional capacity, build professional military leaders, and ensure Marine cognitive and intellectual talents are maximized, documented, and leveraged to the greatest extent possible throughout the force.

The Marine Corps relies on MCU to guide the long-term direction of PME. Guided by the *Commandant's Planning Guidance* and vision, as well as *Force Design 2030* and *Talent Management 2030*, MCU's Strategic Plan places the university on a common trajectory to deliver PME and training through resident and distance learning programs while also preserving and presenting the history of the Marine Corps. The responsibility of the university is to guide the professional growth and development of Marines by providing educational

opportunities that are grounded in the development of higher-order habits of mind associated with the analytic and creative skills foundational to decision-making.

The Marine Corps must be in the business of creating highly flexible and adaptive areas of study that promote the needs of the individual warfighter, ensure non-traditional career paths exist for the military strategist, and enable the discovery and utilization of cognitive talents to meet the demands of future warfare. MCU must maintain and enhance a learning environment for Marines that promotes four key elements of Marine Corps education: transformation, application, relevance, and feedback. These key elements of Marine Corps education are part of a robust process of continuous improvement to make already excellent educational programs even better.

Transformation

Educational transformation looks toward a future of information age learning, rigorous and responsive teaching methodologies, global access to e-learning platforms, and the talent management needs of our corps.

Information-Age learning requires a deep understanding of how people learn and empowers critical and creative thinking through learner control and autonomy. Outcomes-based education depends on rigorous assessment practices, strong feedback loops from the FMF to the education enterprise and connects to the Commandant's emphasis on academic rigor and accountability in his planning guidance. MCU's resident and distance educational programs have led this transformation effort with the



The Marine Corps sends top-performing officers to teach in resident PME programs. (Photo by LCpl Yasmin Perez.)

support of its institutional effectiveness program. In Fiscal Year 2022, MCU launched an automated tool known as TK20 for collecting and analyzing institutional effectiveness data. This new technology is strengthening the university's capability to access data more efficiently and improve decision making both inside the classroom and out in the FMF. To better evaluate academic performance and improve the data repository of student portfolios, TK20 will also enhance the university's ability to adapt the best practices of major civilian universities by making accreditation, micro-credentialing, collaboration, and talent management data needs better defined and readily available.

MCU's faculty is made up of carefully selected military personnel and civilians who are directly involved in the development, delivery, assessment, revision, and adaptation of the curricula to ensure its standards, quality, and relevance. MCU is proud of its faculty. A common misperception (perhaps true fifteen years ago) is that our teaching faculty is made up of second-tier Marine officers. The reality is that our military faculty at Expeditionary Warfare School and Command and Staff College promote at a rate higher than their peers. The Marine Corps sends its top performers to teach in our programs.

Our civilian faculty have PhDs from Harvard, Georgetown, the University of Chicago, and other premier universities. As leaders in their academic disciplines and the profession of arms, civilian and military faculty are involved in the research, service, and professional development in their areas of competence in support of MCU's educational programs. Additionally, MCU's Faculty Development Program provides robust training and development opportunities with an emphasis on learning as well as the currency of subject-matter expertise in their fields of study. Opportunities to collaborate with sister Service universities, Naval Postgraduate School, civilian institutions, industry, and other federal agencies is an intentional process that continues to improve the quality of education delivered to our students.

The e-Learning Ecosystem (eLE) is a system of systems containing multiple application platforms and Learning Management Systems providing a digital learning environment that supports the creation, distribution, tracking of digital content, as well as monitoring and reporting of student performance. Digital content such as interactive media, video, audio, virtual classrooms, file storage and sharing, and social communities are provided through a single point of access for all Marine learners.

Today's highly dispersed global environment coupled with the challenges presented by the COVID-19 pandemic further showcased eLE as a significant enabler within Training and Education. The ability of eLEs to simplify the end user's experience as a one-stop shop for distribution and tracking of digital content has a direct connection to talent management. Enabling student performance data to become more accessible and better synchronized with training and personnel databases can improve the realtime visibility of academic performance metrics both inside and outside the boardroom.

As the Marine Corps looks to improve talent management systems and applications, MCU is postured as a key enabler for identifying high intellectual performers and future strategic leaders. PME is an iterative touchpoint throughout the entirety of a Marines' career. As a result, MCU has the advantage of capturing academic profiles over time and assessing not only academic performance but feedback from the commanders and supervisors of our graduates.

In Fiscal Year 2021, MCU implemented two major initiatives to better align academic performance with talent management. The first is the change to the master's degree policy at resident Command and Staff College (*MARADMIN 434/20*), which requires all U.S. students to enroll in the degree program. Graduates of the resident program now earn a master's degree recognized easily in today's promotion boardroom. The second initiative is the implementation of observed Academic Fitness Reports (*MARADMIN 412/20*). In close coordination with M&RA, MCU continues to support efforts to develop long-term initiatives that will increase the effectiveness of the academic reporting and tracking system over time. Expanding this initiative to non-resident students and the development of a comprehensive tool to track and compare a Marine's PME and professional development accomplishments—both in grade and over the course of their career—is also being explored at this time to widen the visibility of all program graduates.

Talent Management 2030 also describes the expansion of other educational opportunities as a valuable contribution to the Marine Corps' talent management goals. These opportunities exist as military and civilian graduate and doctoral degree-granting programs, fellowships, educational enhancements such as the Gray Scholars Program, and course certifications granted via MCU's College of Distance Education and Training. In Fiscal Year 2021, MCU transitioned the Marine Corps' PhD track from its pilot phase to a program of record. This program allows Marines to compete for a small number of opportunities to enter PhD programs at prestigious civilian universities and earn doctorates. The intent of this program is to provide the Marine Corps with a cohort of advanced strategic and technical thinkers to support senior leader decision making and assist in developing defense and Service strategies. As these highly specialized military leaders begin to graduate and return to the fleet, MCU is developing the means to assess and evaluate the program's return on investment. The Marine Corps' need for these critical thinkers who can advise from a position grounded in both operational experience and deep academic expertise is critical.

Application

Education without application is a non-starter. Without meaningful opportunities to put problem-solving skills to work, student learning suffers. MCU provides a valuable intellectual architecture for analyzing battlefield success. Education by its nature "raises all boats" by maximizing brainpower within our Corps. MCU provides the application of cognitive might by leveraging the Brute Krulak Center for Innovation and Future Warfare, professional outreach, and the newly created Wargaming Directorate.

MCU's Brute Krulak Center for Innovation and Future Warfare enables an interdisciplinary approach to complex problem solving, fosters an environment that enhances our collective warfighting capability, and facilitates and encourages novel solutions to current and future warfighting challenges to



The Corps broke ground on the Marine Corps Wargaming and Analysis Center at Quantico in May 2021. The facility will support dozens of wargames annually, including those conducted in MCU's colleges and schools. (Photo by LCpl Ann Bowcut.)

expand the Corps' competitive edge and improve our warfighting effectiveness. The center provides general support to all academic programs and maintains several academic chairs that serve as outside subject-matter experts from other Marine Corps organizations, sister Services, other governmental agencies, and

of other audiences through podcasts, annual roadshows, scholarly research, and industry forums. The community of interest includes over 8,000 social media followers on 5 platforms, 600 email subscribers, and allied militaries on 4 continents. Furthermore, MCU provides a central repository for regional

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through volunteer service from private individuals. Such support allows MCU to enhance its educational programs beyond the minimal requirements of Service and joint professional military educational outcomes and broaden the range of expertise to which MCU's students have access.

MCU's outreach program provides opportunities for faculty, staff, and students to collaborate with external groups and build linkages within the innovation and future warfare ecosystem. MCU connects its ideas to the efforts

and cultural subject-matter expertise through contracted staff, and the resident resources of our Middle East Studies and the Center for Regional Security Studies.

In response to the *Commandant's Planning Guidance*, MCU moved out quickly to develop educational wargaming expertise and build opportunities for both resident and non-resident students. In 2021, a Wargaming Directorate was created to synergize the efforts across the university and ensure a wide range of wargaming platforms—from tabletop

to Cloud-based gaming—are available to students around the globe to gain decision-making “reps and sets” in an unclassified environment. Additionally, in Academic Year 2020 (AY20) and AY21, MCU students supported *Force Design 2030* through participation in analytical wargames with Marine Corps Warfighting Lab to test and evaluate force design concepts related to the infantry battalion and Marine Littoral Regiment. These parallel initiatives have been mutually beneficial and will remain a part of educational wargaming in the future.

Relevance

To prepare for the future fight, Marines must deepen our understanding of our Nation’s security environment, improve our connections to allies and partners, and advance our interoperability with our navy brethren. MCU’s focus on great power competition (GPC) and naval warfighting along with bolstering the International PME program are major highlights our warfighters will need to be relevant going forward.

The DOD expects that GPC and the potential for conflict will be defining characteristics of the international security environment for 2030 and beyond. In response to this rising challenge, the Secretary of Defense directed all Service and joint PME institutions to expand their International-PME programs as well as develop learning outcomes at the intermediate and senior PME level with a focus on GPC. From AY19–AY21, MCU hosted multiple curricular, co-curricular, and extracurricular events focused on GPC. In AY22, MCU will complete the second biennial officer CRB in a row that focuses on great power competition.

MCU maintains an International Program responsible for all eligible allied and partner students and plans to increase IMS participation by 50 percent during the Future Year Defense Program 22–26. MCU’s IMS program is designed to build long-term enduring relationships between Marine Corps officers and international officers. On average, MCU receives approximately 72 international students per year who attend the resident PME programs, with

30 students enrolled in distance learning. The Marine Corps’ plan to increase IMS participation not only ensures additional quotas within resident PME programs are available but also increased the IMS participation in the Blended and Distance PME programs, providing our allies and partners with a significant increase in capacity and more affordable and flexible options.

Training and education that expand Blue/Green staff relationships foster our ability to plan and manage naval operations. As a part of the Enlisted and Officer PME 2020–2022 Curriculum Review Boards, MCU’s focus on the integration of naval concepts such as sea control, amphibious assaults, expeditionary strikes and raids, and expeditionary advanced base operations has been at the forefront of curriculum design. Integrating naval perspectives into wargaming creates better unity of effort, increases the speed of action, and improves our ability to plan to achieve combatant commander goals. To foster Naval/Marine understanding, MCU has a standing seat at the table in several cross-Service Naval Education Working Groups, is structured for naval officer teaching faculty on our staffs, and maintains a senior Naval Chair within our ranks.

Assessments and Feedback

Assessments and feedback are an essential part of effective learning. MCU has taken enormous strides in building data repositories and building out analytical surveys that have greatly helped students understand course materials and have shown to improve their learning.

MCU’s Institutional Research, Assessment, and Planning department supports the collection and analysis of information supporting systematic assessment and evaluation of both resident and non-resident programs. Included in their mission are research services that promote relevant, timely, and accessible data to gain a deeper understanding of issues and conclusions that support decision making, resource allocation, and institutional effectiveness. MCU’s institutional effectiveness program obtains the assessment industry’s best practices

and the tools needed to codify, record, and evaluate the effectiveness of learners, faculty, and teaching environments. These efforts greatly enhance MCU’s ability to make data-driven decisions about its curricula and programs.

MCU conducts surveys of all OPME graduates and their supervisors approximately eighteen months after graduation and is expanding this effort to include interviews. The Qualitative Program Evaluation initiative to gain feedback on MCU programs directly from senior leaders in the FMF and joint force. These tailored sessions should provide more meaningful feedback on the university’s success in preparing its graduates to meet the Marine Corps’ needs. By obtaining quantitative and qualitative data on the quality and perceived value of our programs, the student’s preparedness for follow-on assignments, and supervisor feedback, the university gains an honest assessment of the utility and impact of our programs. Analysis of these data supports making informed decisions about the future of professional military education to strengthen the connection between what we teach and how we fight.

In the challenging world of near-peer competition, the pace on the battlefield will not be determined by the pace of our muzzles but by the pace of our minds. Bottom line, we can have the best concept, equipment, and tactics, but the discriminator will always be our people. Unfortunately, we are not alone nor unique in our efforts to transform the force. Near-peer competitors like China are also ramping up their focus on building an advanced and highly technical military force-in-readiness. As predicted, the gap between the United States and China is shrinking on all fronts and China’s economic steam is not expected to significantly slow any time soon. More than ever before, the urgency to transform and improve the applicability, relevance, and feedback of Marine Corps PME is paramount.



Modernizing Enlisted PME for the 21st Century

Five initiatives

by The Staff of Marine Corps University

The past three decades have seen considerable changes to the enlisted professional military education (PME) continuum—mainly within the grades of lance corporal to gunnery sergeant. As Gen David H. Berger, the 38th Commandant of the Marine Corps, noted in his *Commandant's Planning Guidance*,

Few developments within the Marine Corps during my time in service have been more revolutionary than those undertaken in PME—the most important of which were initiated by the 29th Commandant. PME is not something reserved solely for officers; rather, something expected and

sought-after by our non-commissioned officers and staff non-commissioned officers (SNCOs).

Included in these changes were requirements to complete a non-resident PME course and either a resident course or a seminar led by Marine Corps University's College of Distance Education and Training (CDET). With attention focused on the largest part of the enlisted force—namely lance corporals through gunnery sergeants—the PME needs of the senior enlisted community have largely gone unaddressed. Currently, the last required PME for enlisted Marines who serve a 30-year career occurs at a week-long first sergeant and mas-

ter sergeant regional seminar around 15 or 16 years before retirement. The first halves of their careers include five required PME schools, with none in the second half, despite an exponential increase in their responsibilities, scope, and influence. It gives one pause to consider the last time a Marine serving as the senior enlisted leader for a MEF or combatant commander last attended a Marine PME course over a decade ago.

To address the needs of the senior enlisted force, Marine Corps University is now focusing on modernizing the enlisted education continuum. To that end, the University is moving forward with five initiatives: the creation of the Senior Enlisted Blended Seminar Program, which would replace the current First Sergeant and Master Sergeant Regional Seminar as the promotion requirement to sergeant major and master gunnery sergeant; the development of a Slated Enlisted Leaders Orientation Course for sergeants major and designated master gunnery sergeants assigned for the first time to the general officer level; the expansion of the Executive Education Program, currently exclusive to general officers and Senior Executive Service officials, to include sergeants major and master gunnery sergeants serving as the senior enlisted leaders to general officers; the establishment of the Marine Corps Senior Enlisted Academy (MCSEA) as a stand-alone academy separate from the College of Enlisted Military Education; and the evolution of the Career and Advanced Schools to the blended seminar program model.



The modernized approach to enlisted PME targets lance corporals through gunnery sergeants in addition to the Corps' senior enlisted Marines. (Photo by Chief Petty Officer Alexander Gamble.)

Senior Enlisted Blended Seminar Program

Gen Berger continues to direct the development of a highly educated enlisted force prepared for the increasing rate of change and complexity of the modern battlefield. However, recent improvements to enlisted professional military education have yet to reach the most senior levels of enlisted education.

Currently, attendance of the five-day First Sergeant and Master Sergeant Regional Seminar at the various staff non-commissioned officer academies (SNCOA) is the PME requirement for promotion to E-9. Unfortunately, this compressed timeline fails to foster the intellectual edge required of senior enlisted leaders for success in increasingly complex, distributed, and fluid operating environments. A letter to the CG, Education Command, the Sergeant Major of the Marine Corps, and the Force Level Sergeants Major reinforced that this in-grade PME requirement lacks the educational rigor and depth necessary for meaningful professional development. Meanwhile, the six-week resident Senior Enlisted Professional Military Education (SEPME) program aboard MCB Quantico began challenging senior enlisted Marines in 2008. SEPME has been consistently lauded as an exemplary PME experience and achieves the MCU-designated learning outcomes for E-8s. Unfortunately, SEPME is neither available to the majority of the target population nor a PME requirement for promotion. Still, many believe that SEPME attendance is a *de facto* promotion requirement. Now, the PME requirement for first sergeants and master sergeants will be updated to deliver a SEPME-like curriculum in a blended format available to all E-8s across the total force.

Marine Corps University's CDET, in close coordination with the College of Enlisted Military Education and the MAGTF Instructional Group, has developed the Senior Enlisted Blended Seminar (SEBSP) program. The SEBSP leverages lessons from the CDET-delivered blended programs for Expeditionary Warfare School and Command and Staff College Distance Education Programs. The mutually complemen-

tary effects of resident and non-resident education provide a more significant academic experience and minimize operational and family turbulence. Students remain on station, available to family, and spend less time away from their commands.

The design of SEBSP calls for delivery in two stages: an eight-week non-resident period followed by a two-week resident period. Stage one, the non-resident seminar (NRS) period, will be accomplished as an onsite or online seminar of up to fifteen students facilitated by an instructor. Students will complete the NRS during off-duty hours at or near their primary duty station or online; NRS cohorts will meet one night per week, in person or virtually via the Adobe Connect virtual classroom. Each cohort will then transition to stage two, the final resident seminar. The final resident seminar will occur over two weeks at one of the big SNCOAs at the following MCU regional campuses: Camp Pendleton, CA; Camp Lejeune, NC; Quantico, VA; and Okinawa, Japan. The curriculum for this new SEBSP will replicate the student learning outcomes and many of the class subjects of SEPME and replace the First Sergeant and Master Sergeant Regional Seminar as the PME requirement for promotion to E-9.

MCU piloted the SEBSP in the spring of 2022 at Camp Lejeune. A second pilot is planned at MCB Quantico from January to March 2023. A separate eighteen-week, all-online version will be available by exception to ensure all E-8s have the opportunity to complete their PME regardless of assignment. Once SEBSP is at full operational capability, projected by the end of Fiscal Year 2024, the current First Sergeant and Master Sergeant Regional Seminar will phase out. Those who have already attended the First Sergeant and Master Sergeant Regional Seminar will continue to meet the PME requirement for promotion.

Slated Enlisted Leaders Orientation Course

SgtMaj Clifford "Wayne" Wiggins, the Training and Education representative for senior enlisted education and development, sought out his peers to

determine the need for additional PME for senior enlisted leaders to identify the differences between serving as the senior enlisted advisor to colonels and general officers. He received comments to include:

- "I quickly realized that the method in which I thought and communicated needed to change. General Officers think and communicate very differently. ... Failure to do so (think and communicate as they do) would mean I would get out cycled and become irrelevant."
- "There was a deliberate shift in the direction that I looked and where my vision was. I was no longer looking down and in; instead, I was looking more up and out in order to enable other leaders."
- "At the O-6 and even O-5 level, you were likely the oldest and most experienced member of the unit besides maybe the commander or operations chief. That's no longer the case. It can be intimidating at the General Officer level to be in the room and participating at that level of conversation where you are now more likely to be younger, less experienced, and less educated than those sitting around the table. We must have the right training and education opportunities to set our nominative E-9s up for success going forward."

With only one continuing education program (Keystone) available with just three seats allotted for approximately 70 slated E-9s serving at the GO level, it was clear to SgtMaj Wiggins and others that there is a PME deficit for those sergeants major and master gunnery sergeants serving as O-7 level command senior enlisted leaders for the first time. To fulfill the vision of the Sergeant Major of the Marine Corps, SgtMaj Troy Black, SELOC will be analogous to the Brigadier General Select Orientation Course and the General Officer Warfighting Program and will fill that deficit.

"When you're on a task force, you're asked to hit the ground running and be involved in conversations with three-letter agencies," said Wiggins, "You're on the staff of an organization with 15,000 people—several hundred of them are

not in uniform—who are expecting you to take care of them.”

SgtMaj Aaron McDonald, Sergeant Major, Marine Corps Forces, Europe and Africa, noted that these initiatives support the Commandant’s vision to disaggregate to the lowest level. Having senior enlisted Marines who can advise their commanders at the strategic level “puts our money where our mouth is.”

Expansion of Executive Education Program

“For far too long, there has been a segregation between officers and enlisted because of education,” said Col Seth Ocloo, director of the Lejeune Leadership Institute (LLI), “That’s not a distinction now.” With increasing numbers of enlisted Marines with bachelor’s degrees, graduate degrees, and even PhDs, a tremendous amount of intellectual capital exists in the enlisted ranks. For general officers, the Senior Leader Development Program was born in 2004 to provide structure to the professional growth and assignment strategy of general officers and senior executive personnel. In 2017, it was redesignated as the Executive Education Program in *Green Letter I-17*. Annually, LLI has made more than 30 different opportunities available to general officers. Beginning in 2022, many of those offerings will be available to command senior enlisted leaders (CSELs). Each year, LLI will publish the offerings available to general officers and CSELs such as “Leadership at the Peak” and programs at Harvard University, Cornell University, the Wharton School, and other esteemed organizations. In addition to general officers, CSELs who participate will interact with executives from Fortune 500 companies and other government agencies.

Participation in the Executive Education Program will not be open to all sergeants major and master gunnery sergeants; it will be by invitation only. The Sergeant Major of the Marine Corps, LLI, and MCSEA will determine who will participate and which of the offerings they may pursue (based on billet); however, those admitted will be required to complete one of the programs each year.



Lance Corporal PME seminars and Corporals Courses are conducted at the until level and supported by MCU’s College of Distance Education and Training. (Photo by Cpl Santiago G. Colon Jr.)

Marine Corps Senior Enlisted Academy

The Marine Corps Senior Enlisted Academy will fill the void in the education continuum while furthering the professional development of senior SNCOs. The stand-alone academy will be separate from the College of Enlisted Military Education and will focus on the operational and strategic levels of war and leadership at the unit and organizational levels. Also housed within MCSEA will be the First Sergeants Course and the Senior Enlisted Blended Seminar Program. It will also share in oversight of enlisted participants in the Executive Education Program, SELOC, and the Sergeant Major of the Marine Corps Symposium. This move enables unity of effort at the senior enlisted level and more closely resembles officer PME, which is organized into schools by rank.

Career and Advanced Schools Blended Seminars

While most of the University’s initiatives will focus on the senior enlisted leaders, some changes are coming for the Career and Advanced Schools at the Enlisted College. Citing the need of the FMF to keep its SNCOs in their units as much as possible, the Career and Advanced Schools will also move to a blended seminar program (like the

SEBSP) in which students will participate in a non-resident seminar before attending a final resident seminar. “We’re not fixing a deficient curriculum,” said BGen Walker Field, President, Marine Corps University, “We’re modernizing our delivery method to better reach our students and support the Fleet.” While the learning analysis for such a structure is still in its infancy, BGen Field has set Fiscal Year 2025 as the date for initial operating capability.

Conclusion

There has been a seismic shift in the enlisted PME continuum—but primarily only through the rank of gunnery sergeant. These initiatives will bring forth a level of PME for senior enlisted leaders never seen before to prepare them for their roles as leaders to general officers and Senior Executive Service personnel. More will come in the future as these programs mature. Collectively, these initiatives have made remarkable progress toward the vision laid out in *MCDP 7, Learning*, to create a culture within the Corps that “cultivates the belief that learning is a priority and an enabler for more effective warfighting.”



Mastering the Art of War

Wargaming and professional military education
in an era of great power conflict and competition

by Col Tim Barrick (Ret)

2022 opened with the largest war in Europe since World War II with Russia's invasion of Ukraine. The unwarranted violence unleashed against Ukraine has catapulted Russia and NATO into a new era of competition and potential conflict. In the Western Pacific, China's similar territorial ambitions to gain sovereignty over Taiwan and the South China Sea raise the specter of a potential great power war on both ends of the Eurasian landmass and its surrounding waters. Coupled with China's massive investments in military modernization and advanced technologies, along with a heightened sense of nationalism, China has matched capability with intention to pose a very real threat to security in the region. Amidst this political and historical backdrop, advancements in space technologies, cyberspace, computing and artificial intelligence, stealth aircraft, hypersonic missiles, the internet and social media, and unmanned systems dramatically increase both the sophistication and complexity of modern warfare. With the speed at which war is now conducted, failure can come fast, from unexpected directions, and be unforgiving. Even 80 years ago, in 1943, frustrated by his own hesitancy in a close-in engagement with Japanese destroyers, ADM Arleigh Burke (commanding a destroyer squadron at the time) commented, "The difference between a good officer and a poor one is about ten seconds."¹

Now, more than ever, our officers and enlisted must be capable of making effective military plans and decisions that account for the opportunities,

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challenges, threats, and risks associated with the complexities of modern all domain, joint and combined warfare. This quality can only come from effective military judgment and decision making that is grounded in an understanding of the principles of war, the dynamics of modern warfare, and the application of military capabilities across the range of military operations and scenarios. This judgment must be cultivated through experiential learning. For professional military education (PME), wargaming is the optimal means to gain this "synthetic" experience. Through multiple iterations in wargaming, our officers and enlisted students can sharpen their military judgment and better understand the complex dynamics of modern, all domain, great power conflict and competition. At Marine Corps University (MCU), an increased focus and investment in wargaming over the past two years is now starting to come to fruition. As these wargaming initiatives gain momentum, our PME schools will produce officers and enlisted Marines with a greater appreciation for the complexities and decision-making requirements of contemporary and future warfare, thereby increasing our preparation and readiness for the challenging demands that potential future conflicts will place upon us.

These wargaming investments are focused on the educational goal to

produce graduates with multiple experiences during their course of study in applying military capabilities and making decisions that achieve tactical, operational, and strategic objectives. Iteration in the practice of military decision making is often cited as the key to honing professional military judgment. In their recent article on wargaming titled "Promise Unfulfilled: A Brief History of Educational Wargaming in the Marine Corps" in the *Journal of Advanced Military Studies*, Maj Ian Brown and Sebastian Bae paraphrased Admirals Nimitz and Sims and concluded,

Leaders can only hone decision-making skills for future wars when they are given repeated opportunities to make, and learn from, decisions. Moreover, wargaming's full value for the operating forces comes from giving as many Marines as possible as many opportunities as possible to sharpen their critical thinking.²

The key to learning from wargaming is the opportunity to make decisions and see those decisions play out. Unfortunately, most of the learning experiences that occur in today's PME courses across the joint force are focused on gaining knowledge in the planning process, military theory, and historical case studies. While these are all valuable and increase knowledge, they are not the same as requiring our officers and enlisted to weigh the critical factors of a specific situation, decide, and see the consequences of that decision over time. Furthermore, in most PME practical exercises, there is the absence of an opposing will seeking to defeat or destroy

the student in a contest of arms. This is the dynamic of war. Yet, this dynamic tends to be a rare experience in many PME courses. This gap was called out by Gen Berger in his *Commandant's Planning Guidance* in July 2019 when he stated,

In the context of training, wargaming needs to be used more broadly to fill what is arguably our greatest deficiency in the training and education of leaders: practice in decision-making against a thinking enemy.³

MCU is on the pathway to correcting this deficiency by expanding wargaming significantly within all MCU PME programs.

Marine Corps University Wargaming Initiatives

MCU's approach to wargaming is multi-faceted.

The Wargaming Cloud

Coming online in Spring 2022 is MCU's new Wargaming Cloud. This new capability has the potential to completely revolutionize wargaming and PME by delivering a set of tools that make it easier to integrate wargaming into curriculum and extra-curricular activities. There are two key aspects to this capability that promise a significant return on the investment: the ability for faculty and students to play a digital wargame from anywhere from almost any device at any time and the ability to tap into a government-provided digital wargame library with a wide range of wargames and scenarios spanning tactical, operational, and strategic requirements. Neither of these capabilities has existed in the past. Beginning with Academic Year 2022–23, MCU faculty and students can start tapping into this new wargaming capability. Like any new technology, it will take time to fully leverage this new wargaming potential. One of the keys to long-term success with this Wargaming Cloud will be the availability of a wide range of wargames and scenario content that is easy to learn, challenging to master, and relevant to student learning. If students see and experience the value of playing these games, they will return to them for more of the proverbial “reps and sets”

of virtual experience in tactical, operational, and strategic decision making.

Expanding the Wargame Toolkit

In the near term, MCU will leverage a mix of government and commercial off-the-shelf wargames to populate the Wargaming Cloud's virtual game library. While many of these will prove of value, there are limited options on the market for games that are oriented toward contemporary and future conflicts that model all domain warfare and present opportunities to practice new methods of war and joint warfighting. It will take time to adapt promising wargames to meet specific PME requirements. In the meantime, faculty and students will be presented with opportunities to leverage the best digital games that the government and the commercial game industry offer for both historical and contemporary scenarios. These games still offer excellent opportunities to practice decision making versus both computer and human opponents and to apply the principles of war. MCU will also promote extra-curricular opportunities for students and faculty to wargame via tournaments in this Wargaming Cloud. Ideally, this new capability will enable students to graduate with far more reps and sets in military decision making than ever before.

In addition to creating opportunities for computer-based wargaming, MCU is focused on delivering a set of tabletop wargames optimized for PME requirements in all domain, joint warfighting. A primary game in this effort is the Operational Wargame System (OWS). Originally developed by wargame designers in the Marine Corps Warfighting Lab and then collaboratively beta tested and refined with professional wargamers from across the Services and allies, OWS is focused on modeling joint and combined campaigns at the theater level and has game modules that cover a hypothetical war in the Western Pacific (*Assassin's Mace*), a potential war in Europe between Russia and NATO (*Zapad*), and specific regional scenarios for NATO's Northern Flank (*Sever: War in the Arctic*), and most recently *Ukraine: War on the Steppes*.

Mastering Military Capabilities

In mastering the art of war, to recognize opportunities and risks, one must first understand the capabilities in play. In Wayne Hughes' book *Fleet Tactics & Naval Operations*, he comments, “To know tactics, you must know weapons.” In addition to joint warfighting concepts and all domain warfare, another valuable learning aspect that wargames bring is an immersion in capabilities—both friendly and adversary. Knowledge of weapons systems and sensors is foundational to being an effective military planner or decision maker. Yet, a solid grounding in Russian and Chinese capabilities is not a common attribute in our officer corps. Through immersion in wargaming, as players plan and make decisions and are attacked by threat capabilities, their knowledge grows. Current wargame tools that MCU is leveraging to help provide this grounding in modern weapons systems and all domain warfare include on the computer wargame side *Command Modern Operations* [also known as *Command Professional Edition*] and *Flashpoint Campaigns* (a Germany 1980s World War III commercial game that has been adapted to modern scenarios). And, on the tabletop side, in addition to the OWS, MCU has used *FMF INDOPACOM* developed by Sebastian Bae (soon to be released commercially as *Littoral Commander: Indo-Pacific* by the Dietz Foundation) and the Next War game series published by GMT (*Next War Korea*, *Next War Poland*, *Next War Taiwan*). As we look to the future, MCU plans to expand the wargame portfolio of both digital and tabletop wargames, not only leveraging historical games but focusing on wargames that enable player decisions set in contemporary and future battlefields.

MCU Individual School Initiatives

While this article cannot cover the full scope of MCU wargaming initiatives, to give a sense of the overall effort, a few of the individual schools' efforts are highlighted here. At the School of Advanced Warfighting, there is a concerted effort to inculcate the students in wargaming and to challenge them with force-on-force campaigning. Two

examples are their Gothic Wildcat and Singapore Sling wargames, which explore some alternative historical campaigns from World War II using *The Operational Art of War* computer game. The School of Advanced Warfighting infusion of wargaming now builds to the granting of a Wargaming Certificate to graduates, with the vision that they have the skills to run a staff wargame upon arrival at their next assignment. At Expeditionary Warfare School, the staff is actively experimenting with wargame tools such as *Command PE* to identify the best capabilities to support student wargaming at the MEU level. At Command & Staff College, the Pacific Challenge series of games continues to be updated to better model threats and to take advantage of wargaming tools such as *Command PE*. College of Enlisted Military Education is also exploring wargaming options to include *FMFINDOPACOM* to better enhance student understanding of MAGTF and joint operations. Furthermore, the Marine Corps War College incorporates a series of historical board games, the *Hedgemony: Game of Strategic Choices* strategy game developed by RAND and an end of year Global War simultaneous conflict wargame based on OWS. MCU also runs an annual Sea Dragon wargaming tournament that includes teams competing from across all schools.

MCU and Wargaming Future Warfare

In addition to producing graduates steeped in tactics, operational art, and strategy, MCU seeks to contribute to advancing ideas on future warfare, joint warfighting, and future force design via wargaming as a research method. Over the past few years, the University developed a close partnership with the Marine Corps Warfighting Lab to support Service-level wargames and iterative research games. This was initially done via the Command and Staff College's Gray Scholars Program initiative and has evolved into multiple efforts over the course of the academic year. With a player pool of students and faculty across all MCU schools who can take a relatively unbiased and academic approach to wargaming and who are

local to Quantico over the span of the year, MCU is in an ideal position to enhance futures focused wargaming.

In 2024, the new Marine Corps Wargaming & Analysis Center (MCWAC), currently under construction right next to the MCU campus, will become operational. This new wargaming center will represent the state of the art in wargaming capability. MCU is working with the MCWAC program office to identify ways for MCU to export some of this capability into MCU wargaming efforts at the unclassified level. The full MCWAC capability will certainly be leveraged to support classified advanced research wargames conducted by small groups of students and faculty.

Exporting Wargaming to the Operating Forces

Another byproduct of these wargaming efforts is that students emerge from these PME courses with a degree of familiarity with wargaming—including specific games like *Command PE* and OWS. These graduates can then leverage these games once back in the operating forces to help inform problem framing, course of action development, and plan rehearsals. By leveraging these games and educating students on how to play them, and demonstrating their potential as tools to refine plans, tactics, operations, and strategy, MCU not only makes graduates better planners and decision makers but directly contributes to enhancing the overall planning capabilities of each operating force unit as they in-turn leverage these same wargaming tools for planning. The groundwork for this is already being done through wargaming partnerships between MCU, the MAGTF Staff Training Program, and each of the MEF staffs. This partnership has already led to wargame efforts in Academic Year 2021–22 at both I MEF and II MEF.

Conclusion

The need for wargaming inside our PME programs is more critical now than ever. The increased sophistication of war, the demands of all domain warfare, and the wide range of joint capabilities (both friendly and adversary)

require that military planners and commanders become diligent students of war beyond just their individual areas of expertise. As integrated joint warfighting is pushed to ever more tactical levels, it is incumbent upon all to look beyond the capabilities residing within their Service and gain an understanding of how to leverage capabilities from across the joint force. Since our future adversaries will try to gain their own advantages across all domains, understanding the array of threat capabilities across domains is just as important. There is perhaps no better quote appropriate to mastering the art of war than this one from Sun Tzu:

If you know the enemy and know yourself, you need not fear the result of a hundred battles. If you know yourself but not the enemy, for every victory gained you will also suffer a defeat. If you know neither the enemy nor yourself, you will succumb in every battle.⁴

The mandate for PME is that our graduates emerge from our courses with a foundational knowledge of the joint force, joint warfighting, allied warfighting, and the capabilities, tactics, and strategies of our potential adversaries. It is through the means of wargaming that these ends will be achieved.

Notes

1. Roger Misso, "Ten Seconds," *U.S. Naval Institute Blog*, (March 2016), available at <https://blog.usni.org>.
2. Maj Ian Brown and Sebastian Bae, "Promise Unfulfilled: A Brief History of Educational Wargaming in the Marine Corps," *Journal of Advanced Military Studies*, (Quantico, VA: Marine Corps University Press, Fall 2021).
3. Gen David H. Berger, *38th Commandant's Planning Guidance*, (Washington, DC: July 2019).
4. Sun Tzu, *The Art of War*, (Minneapolis, MN: Filiquarian, 2007).



High-Impact PME

Scholarship programs at Marine Corps University

by Maj Ian T. Brown

This past January, Gen David Berger, Commandant of the Marine Corps, noted that “we have to incentivize superior performance” in professional military education (PME).¹ A necessary element of incentivizing such performance is by providing opportunities for superior performers to truly challenge themselves. Fortunately for the FMF, the schools at Marine Corps University (MCU) already offer several options for those high performers to both challenge themselves and generate useful research and insights that can benefit the fleet. Many of these options are in the form of extracurricular academic programs, in which students immerse themselves more deeply in an area of study and have that immersion guided by subject-matter experts both within and outside of the MCU environment. This article highlights some of the programs available at each school and how those programs allow already high-performing students to be even more impactful on their return to the FMF.

Expeditionary Warfare School—Enrichment and Fellowship

For career-level officers, Expeditionary Warfare School (EWS) offers two options for extracurricular academic enhancements: the Enrichment Activities Program and the Fellowship Program. The EWS Enrichment Program grants students and faculty numerous opportunities for academic, professional, and personal development beyond the school’s core curriculum and allows participants to broaden their academic experience while building lifelong learning habits. EWS uses a tiered approach to its enrichment programs. Tier I are those formal programs that either offer elective credit or have the potential to reinforce the EWS curriculum. Examples

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include Dr. Williamson Murray’s “Seminar on War” and “Greek Seminar on War” electives, Dr. Kirklin Bateman’s “Irregular Warfare” and “Gettysburg Campaign Staff Ride” electives, the “Beyond Boyd” seminar, “Wargaming Exploration,” “21st Century Leadership,” and the “Captains’ Combat Leadership Seminar.” Tier II programs more indirectly reinforce the EWS curriculum and include the Futurist Forum and Quatrefoil Society. Finally, Tier III programs are more informal, focusing on camaraderie, esprit-de-corps, com-

Traditional Fellowship. A Traditional Fellowship allows students to write papers that go beyond what is required of every student at EWS. These longer papers encourage original research and give students the opportunity to stretch their creative abilities. Over the past five years, Fellows have produced papers on suicide awareness programs, unmanned aerial systems, and returning service members with amputations to active duty. The Non-Traditional Fellowship requires students to present a final project in some form besides an essay.

The EWS Enrichment Program grants students and faculty numerous opportunities for academic, professional, and personal development beyond the school’s core curriculum ...

munity service, and physical fitness. Examples of these programs include Dr. Todd Holm’s woodworking program, orienteering, and the EWS basketball team.

EWS developed its Fellowship Program in 2017 under guidance from Maj-Gen Jason Bohm (then-Col Bohm). The intent was to provide a deeper challenge beyond the school’s required 2,000-word Argumentative Research paper for top students who wanted to explore subjects of which they were passionate. Fellowship projects can take two forms: a Traditional Fellowship and a Non-

Such projects have included the development of an additive-manufactured square water bottle, which increased the volume of a shipping container by 60 percent; using augmented reality to assist field medics; a unique art exhibit exploring youth in combat; a social media tool kit for Marine recruiters to leverage during COVID restrictions; and children’s books designed to help children of service members adapt to permanent-change-of-station moves. In addition to creating a final product for a grade, students also present their projects to the EWS student body at the



Capt Valerie Krygier presents her EWS Non-Traditional Fellowship project, the "Social Media Prospecting Playbook," as part of the AY 2021 Innovation Summit. (Photo provided by author.)

end of the year, with the top projects also featured in the annual cross-school Innovation Summit hosted by the Brute Krulak Center for Innovation and Future Warfare.

Command and Staff College—Gray Scholars Program

The Command and Staff College's (CSC) Gray Scholars Program (GSP) is an advanced studies program of multiple academic lines of inquiry (LOI) organized as individual courses taught by CSC faculty. GSP provides a space for a group of competitively-selected CSC students to complete their Master of Military Studies degree while challenging many of the assumptions about war, strategy, operations, history, policy, and international and domestic politics. Classes are small (4:1 student-teacher ratio) and meet throughout the entire academic year (AY). GSP scholars receive a certificate and two additional credit hours on their transcripts, with some GSP LOI linked to the CSC electives program as well.

Demand for the GSP exceeded expectations, prompting CSC to grow the program from one line of inquiry to five. The current AY21/22 list of LOIs offered includes: "The 5,000-Year-Old-Mind," led by Dr. Lon Strauss, Dr. Paul Gelpi, and LtCol Brian McLean; "Social and Political Conflict Lab," mentored by Dr. Craig Hayden and Dr. Claire Metelits; "Educational Wargaming,"

The Command and Staff College's Gray Scholars Program is an advanced studies program of multiple academic lines of inquiry organized as individual courses ...



GSP students explore wargame mechanics in the "Educational Wargaming" LOI in AY21/22. (Photo provided by author.)

led by Dr. Paul Gelpi and Dr. Hayden; "Naval and Maritime Strategy," led by Dr. Douglas Streusand; and the "Strategic Dialogue," mentored by Dr. Gelpi and Dr. James Joyner.

While the themes of specific LOIs have changed across the years, the GSP is constant in its opportunity to provide CSC students with chances to collaborate with outside entities such as the Marine Corps Warfighting Laboratory (MCWL), present their findings to audiences outside of CSC—such as MCCDC and the Innovation Summit—and distinguish themselves academically (44 percent of GSP students were Distinguished Graduates last year).

Marine Corps War College—Advanced Studies Program

Students at MCU's top-level PME school, the Marine Corps War College (MCWAR), all partake in MCWAR's Advanced Studies Program (ASP). Initiated in AY13, the ASP supplements the core courses taken by the students—"Warfighting and Economics," "Diplomacy and Statecraft," "National Security, Leadership and Ethics," and "Joint Warfare"—by providing unique methods for a deeper analysis of each course's content. As noted by Mr. Tim Barrick in "Mastering the Art of War: Wargaming and PME" (also found in

this *Gazette* issue), students in the AY22 ASP used the “Assassin’s Mace” module of the Operational Wargame System (OWS) to plan and execute a simulated joint campaign in the Western Pacific. The OWS focuses on hypothetical conflicts in the 2025 timeframe and helps students understand the relationship between operational time and distance factors, the rapid tempo of decision-making, and the complexities of joint warfare in the future operating environment.² As MCWAR students go on to positions of Service-level leadership, the ASP, utilizing tools like the OWS, is a crucial program for developing leaders able to inform strategy, joint warfighting concepts, and Marine Corps force design efforts.

Cross-School Scholars Programs

In addition to the school-specific programs outlined above, MCU also hosts several cross-school programs open to all PME students. Beyond offering opportunities for high-performing students to more deeply explore key research areas, these programs create a unique environment in which students from different ranks and backgrounds can share their perspectives and learn from each other in a way not normally found inside standard PME curricula. These programs are described below.

Van Riper Scholars

The kernel of what would become the Van Riper Scholars program formed near the end of AY20/21, when a request came to MCU from MCWL to provide players for a wargame focused on force design. The collaborative game was a success and resulted in BGen Benjamin Watson, commanding general of MCWL, seeking support in AY21/22 for a series of iterative force design wargames. To both formalize and streamline student participation, MCU stood up the Van Riper Scholars program. Taking the GSP as a model, the Van Riper Scholars was opened to students from all MCU schools and incentivized students signing up by granting credit for extracurricular enhancements: EWS students got credit for their Enrichment Program, CSC students received credit for the elec-



Mr. Tim Barrick explains the outline of a scenario in the OWS. (Photo provided by author.)

tive program, and MCWAR students earned credit toward the ASP. In return, MCWL gained a trained and experienced wargaming cadre for its iterative Force Design wargame series, with students playing through an Infantry Battalion 3030 game in the fall of 2021 and a Marine Littoral Regiment wargame in the spring of 2022. Thus, the Van Riper Scholars received a unique opportunity to directly impact

ter has generated several of its own scholar’s programs to achieve this goal. Since AY19/20, the Center’s flagship programs include the General Robert H. Barrow Fellowship and Lieutenant General Victor H. Krulak Scholars. In addition to resident PME students at MCU, a unique aspect of the Krulak Center’s programs is that they have also included interagency students from national security and law enforcement

Charted to ... provide opportunities for innovative thought and creative problem-solving ... the Krulak Center has generated several of its own scholar’s programs ...

the dynamic force design process, as well as gleaned valuable insights on the future force that they took with them when they returned to the FMF.

Krulak Center Scholars Programs

The final category of cross-school scholars programs is run by the Brute Krulak Center for Innovation and Future Warfare. Charted to cultivate and provide opportunities for innovative thought and creative problem-solving to all MCU schools, the Krulak Cen-

ter has generated several of its own scholar’s programs to achieve this goal. Since AY19/20, the Center’s flagship programs include the General Robert H. Barrow Fellowship and Lieutenant General Victor H. Krulak Scholars. In addition to resident PME students at MCU, a unique aspect of the Krulak Center’s programs is that they have also included interagency students from national security and law enforcement entities in the National Capital Region, as well as Marine Corps distance education students. Coursework includes immersive lectures and discussions from subject-matter experts, culminating in a final written product with the specific goal of having it published professionally. Covering themes from the strategic competition with China, the space domain, alliance dynamics, and the national security implications of climate change, Barrow Fellows and Krulak Scholars have enjoyed unique



LtGen Lori Reynolds (Ret), former Deputy Commandant for Information, talks to students in the Women, Peace, and Security Scholars program. (Photo provided by author.)



Dr. Amin Tarzi, Director of Middle East Studies, provides a lecture on security issues in the eastern Mediterranean to the Krulak Scholars. (Photo provided by author.)

opportunities to influence the broader discussion and policy framing of these topics by briefing their research to Service chiefs, Marine Corps deputy commandants, and senior civilian leaders within the Defense Department. They have enjoyed significant success in the publication realm as well, with essays featured in the *Marine Corps Gazette*, presented at the International Studies Association and Strategic Command's Academic Alliance Conference, and

elsewhere.³ Thanks to a growing demand signal for additional programs, in AY21/22 the Krulak Center added a Women, Peace, and Security Scholars program in conjunction with Dr. Lauren Mackenzie, Professor of Cross-Cultural Competence at MCU.

Conclusion

While there are myriad approaches to "incentivizing superior performance" in PME as Gen Berger challenged, creat-

ing opportunities for superior performance is a vital one. Moreover, MCU has looked beyond the framework of standard educational curricula and generated unique programs that engage all OPME schools. The scholarship programs described allow those students who want to maximize the benefits of their time in resident PME the chance to do so and do so in a fashion that lets them impact the Fleet beyond their transient time in Quantico. For those students of all Services about to come on deck at MCU: welcome aboard, and if you hunger for a deeper challenge during your months here, we have an opportunity for you!

Notes

1. Gen David H. Berger and Ryan Evans, "Gen David H. Berger on the Marine Corps of the Future," *War on the Rocks*, (January 2022), available at <https://warontherocks.com>.
2. Georgetown University Wargaming Society, "Wargame Design: The Marine Corps' Operational Wargame System," YouTube video, 1:59:06, (July 2021), available at <https://youtu.be>.
3. For *Gazette* contributions, see: Maj Robert Manuel, LTC Jeremy Glauber, and LtCol Christopher Jones, "Yes, They Can Hear Us Now," *Marine Corps Gazette*, (Quantico, VA: September 2021); LCDR Timothy Polyard, Capt Adam Fountain, CAPT Andrew Folt-ermann, and Capt Edwin Latrell, "Fighting From the Ultimate High Ground," *Marine Corps Gazette*, (Quantico, VA: September 2021); and Maj Jared Cooper, "Marines in the Space Domain," *Marine Corps Gazette*, (Quantico, VA: September 2021). International Studies Association and Strategic Command Academic Alliance contributions by Capt Casey Lamar with Dr. Leah Windsor can be found on the organizations' respective websites.



Rethinking Enlisted Education

Supporting force modernization

by Randi R. Cosentino, Ed D & Mr. Robert Kozolski

In the past, many viewed college education for enlisted Marines as a distraction from unit training or operations. It was often considered a benefit or perk—an endeavor only to prepare Marines for a successful transition to civilian life. However, as society, technology, and geopolitics changed, so did the character of warfare. The Marine Corps recognized the need to adapt to these external changes as described in *Force Design 2030*. A critical part of this bold force modernization effort must include rethinking how the enlisted force's academic and intellectual contributions could be used beyond their traditional roles in combat.

Force Development and Education

Gen Charles Krulak wrote about the strategic corporal and leadership in the three-block war.¹ While the three-block war did not envision the resurgence of strategic competition, it did identify the increasingly complex decisions made by small-unit leaders. Gen Krulak's article reinforced the need for small-unit leaders to recognize opportunity and seek advantage by seeing both the enemy's actions and their own actions in a broader context. This is not a new concept and remains the center of success in maneuver warfare. Time is a weapon; a unit that is able to identify what is important and act on it at the lowest level is a quicker, more lethal unit. *MCDP 7, Learning*, refers to *MCDP 1, Warfighting*, a dozen times. In one reference, it states, "Maneuver warfare requires intelligent leaders at all levels who possess a bias for intelligent action."² The link between learning and maneuver warfare is clear: expeditionary advanced base operations will only

push further down in rank the need for small-unit leaders to understand the larger context of their decisions, possess the skills to operate in communication constrained environments, thrive as a smaller organization with less support, and employ weapons of greater reach.

Additionally, the evolving character of war places a premium on the total force's cognitive abilities and advanced technical skills. Yet, the Marine Corps is faced with several strategic challenges that it must address to succeed on the modern battlefield. First, modern warfare places a greater emphasis on cyber, big data, and other advanced weaponry. Different skillsets and the ability to process information quickly and accurately are required to take full advantage of these emerging capabilities. Second, in the information age, competition occurs in the cognitive domain. Therefore, enlisted Marines need to develop advanced critical-thinking skills as a force protection measure to defend against the misinformation, deception, and propaganda of our adversaries. Finally, despite the demand for high-tech skills on the battlefield, those same tech skills are in great demand in the American private sector. This reality creates a retention problem in certain enlisted career fields. It also creates a situation where the best and brightest Americans may choose more lucrative career opportunities in the private sec-

tor over joining the military Services. These problems must be addressed by placing more emphasis on the professional development of enlisted Marines, including academics.

In February 2019, the Department of the Navy issued its Education for Seapower (E4S) Report, calling for reform and improvement of the naval education system and in particular for enlisted forces.³ The E4S Report provides recommendations stemming from the Education for Seapower Study, which found that the majority of the naval Services (the enlisted forces), while provided training, were generally excluded from the myriad of educational opportunities afforded to naval officers. Unlike the officer corps, there was no clear connection between college education and improved leadership skills, technical competency, or operational readiness for enlisted service members. To solve this problem and a call to action in the E4S Report, the Secretary of the Navy established the U.S. Naval Community College (USNCC) specifically to provide enlisted sailors, Marines, and coast guardsmen an academic institution that provides college-level education designed around the needs of the naval operating forces.

In the two years since its inception, the USNCC leadership team engaged with naval officers and enlisted leaders from the Services to design and launch

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outstanding online, naval relevant academic programs that service members can complete on their own time that directly contributes to the FMF.

Naval Body of Knowledge

Most professions, such as accountants, project managers, or lawyers, operate from a common body of knowledge, and the naval profession should be no different. A common body of knowledge promotes a shared understanding of the profession and provides a general foundation for specific competencies. To date, only naval officers have had access to the study of naval

opportunity for active-duty enlisted members to build the knowledge and relationships they need early on to integrate internally, which provides a stronger foundation for mastering the joint environment as a senior enlisted leader.

As a member of the Naval University System, the USNCC reinforces existing efforts of the Navy, Marine Corps, and Coast Guard to maintain partnerships across all three Services and ensure that our continuing education opportunities are relevant to the needs of the Services and the future of the naval forces. All USNCC students must complete five

thinking skills to match their physical combat skills. As the in-residence, brick-and-mortar, online, and hybrid learning options grow within and between military and civilian entities, our junior enlisted forces have increased access to develop the increasingly determinant sharp critical-thinking skills they need to optimally leverage training and educational opportunities to boost professional learning outcomes and force readiness.

Today's enlisted forces are required to assess the credibility and relevance of incoming information under the suppressing fire of a wide range of sources, including the increasingly complex technologies they operate and monitor, the social media sources they have access to, and the interpersonal communications they have with friends, family, and the chain of command. Naval relevant online enlisted education is uniquely positioned to provide enlisted forces with rigorous learning activities to make sense out of complex environments and to boost their resistance to misinformation. This education also sharpens their discernment as it relates to quickly analyzing situations and deciding when to apply previous training versus when to leverage education to formulate and effectively communicate a better course of action informed by the ambiguous and continuously changing threats they face.

The USNCC students engage with the five naval relevant courses designed to boost their critical-thinking skills, analytical skills, good judgment, and effective communications that they need to maximize operational effectiveness and warfighting advantage. Critical thinking comprises the intellectual ability and metacognitive skills to continuously monitor and refine their own understanding of the world while evaluating and synthesizing new insights into reasoned judgments and actions to maximize operational effectiveness and warfighting advantage in rapidly evolving contexts.⁵

Marines enrolled in the USNCC Naval Studies Certificate program will engage with sailors and coast guardsmen to sharpen their critical-thinking abilities, including information literacy,

Marines equipped with the USNCC education will develop the skills to frame complex and rapidly evolving issues, develop multiple hypotheses ...

matters at regular intervals throughout their career, leaving the largest portion of the workforce (enlisted service members) without the same foundational academic grounding and opportunity to better understand how the Naval Services operate in the complex maritime environment. This artificial bifurcation was appropriate for the Industrial Age; however, it is no longer optimal for a modern military. The USNCC, in collaboration with faculty from other schools in the Naval University System, designed a Naval Studies Certificate to expand the knowledge base across the entire force.⁴

The USNCC Naval Studies Certificate is designed to supplement—not substitute—the Services' enlisted professional military education. Its purpose is to provide a voluntary education pathway reinforcing existing efforts and providing an opportunity to bring the Naval Services together and increase technical skills in the fleet, as well as an understanding of the context in which they operate. The USNCC provides space for active-duty enlisted members of the Naval Services to sharpen skills and prepare better for small-unit leadership challenges. Additionally, the USNCC provides a much-needed

courses in USNCC's Naval Studies Certificate program to complete their associate degree. These courses bring together students across the Naval Services to:

- discuss and learn moral deliberation, draw upon the case studies of naval history,
- recognize how Naval Services meet the Nation's security requirements,
- consider the military Services in the U.S. Government, and
- understand the challenges of strategic competition.

These skills provide the “reps and sets” for critical thinking, the context for the larger operating environment, and the exposure for small-unit leaders to understand how the Navy, Marine Corps, and Coast Guard come together to support the interests of the Nation. Small-unit leaders are able to tap into this foundation to recognize opportunity and advantage more quickly, thus increasing the unit's efficacy.

Thinking Critically

Critical-thinking skills are as important in modern warfare as physical fitness and marksmanship. The Marine Corps needs to take deliberate efforts to ensure the force has the critical-

analytical rigor, adaptive awareness, ethical leadership, and effective problem solving. These Marines will also develop effective written communication skills through short and long form essays citing and integrating insights from credible sources while they deepen their understanding of naval-relevant topics spanning disciplines such as history, political science, ethics, leadership, and geopolitics.

Marines equipped with the USNCC education will develop the skills to frame complex and rapidly evolving issues, develop multiple hypotheses as well as evaluating alternatives, and clearly communicate insightful recommendations to their peers and chain of command to influence solving complex problems in rapidly evolving and ambiguous circumstances.

Relevance

College-level general education courses are valuable to achieve both

critical-thinking rigor and versatility among learners. Learners develop the discernment they need to frame problems and quickly formulate context-informed solutions in rapidly changing environments by applying the critical thinking, problem solving, and communications skills they learn to a variety of disciplines and knowledge domains. The combination of general education along with professionally relevant courses significantly improve learning outcomes and relevancy to the target audience. The U.S. Naval Academy has been successfully blending general and naval-relevant courses to boost learning outcomes for its graduating officers. The USNCC will leverage similar insights and adapt these approaches to the needs of the enlisted forces in the Navy, Marine Corps, and Coast Guard.

Specifically, the USNCC is continuously engaging with subject-matter experts from the naval operating forces to develop and optimize cross-disciplinary

programs and learning objectives that maximize learning outcomes toward naval relevant professional concentration areas such as data analytics, military studies, cybersecurity, and organizational leadership.

By collaborating with partner institutions who are experts in providing education in important disciplines such as those noted above, the USNCC can develop and support the delivery of education aligned to the custom outcomes that the naval services require. A standard logistics program takes on the emphasis of maritime logistics; a data analytics program can emphasize the application and understanding of data in contextualized examples that are relevant to the Naval Services. The USNCC will capitalize on the theoretical and applied learning in which leading higher-education institutions specialize while ensuring that service members can apply that learning to their service environments.

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Access

The sea Services must prioritize transitioning enlisted education from Industrial Age-based education platforms to technologically and information age-based formats. One opportunity that directly links *Force Design 2030* to improved educational opportunities is the USNCC. Naval forces are seeking better venues to develop warfighting capabilities at a low cost while incorporating a return to naval integration and amphibious operations. The USNCC links to naval integration by providing educational opportunities based in naval tradition integrated with technology through the delivery of online and competency-based education programs, allowing students—sailors, Marines, and coast guardsmen—to achieve higher levels of education without leaving their home station or ship.

The increased access to educational opportunities creates an environment where the desire to allow learning increases as learning does not interfere with training or readiness, resulting in the flourishing of individual learning. This advancement of a flexible and accessible learning environment develops critical thinkers and lifelong learners. However, this requires the naval forces to remember that learning encompasses both training and education.⁶ The USNCC provides education in naval integration, amphibious operations, and critical thinking, which assists the naval forces to achieve an understanding of the integration of force design into warfighting. This is achieved by the USNCC's focus on technology and information-based platforms integrated with adult learning concepts that develop the service member's warfighting capabilities.

Leadership Support for Education

Intrusive leadership is as essential to achieving the desired critical thinking outcomes as it is for any individual warfighting readiness, such as physical fitness. However, education and other aspects of cognitive development are often left to the individual. The following actions can help improve the success of enlisted students:

Opportunities: Leaders balance a host of priorities when considering the professional development of the men and women in their charge. Leaders consider education important and therefore block off or schedule time within an operational schedule for students to participate in academic programs. This provides stability for students to focus on academic work with minimal disruption.

Engagement: Leaders who engage students in discussions about what they are learning in the classroom play an important role in demonstrating the relevance of the knowledge acquired by the students and providing the students with the feedback that the work they are doing in the classroom matters to the unit.

Application: Leaders should identify opportunities for students to apply the knowledge learned in the classroom to operational missions, as this demonstrates the ultimate test of naval-relevant education. As more knowledge is acquired by the enlisted force, effective leaders will find innovative ways to harness this knowledge and apply it to all aspects of warfighting readiness.

Conclusion

When considering military readiness, renowned defense scholar Richard Betts observed, “the aim of strategy and policy is not to achieve readiness in a single sense but rather to answer three key questions over a long period of time: Readiness for when? Readiness for what? Readiness of what?”⁷ While training prepares Marines for what is known, *education* helps prepare for the unknown. The Marine Corps must strike a balance between training and education to maintain a high state of readiness across the force as a hedging strategy to deal with the uncertainty inherent to modern warfare.

The Marine Corps faces a significant challenge: to succeed in modern warfare, it must have an educated force with finely-honed critical thinking skills to create an intellectual overmatch against potential adversaries.⁸ Given the changes in society, technology, and geopolitics, the onus is on the Marine Corps to develop cognitive capacity and

skills of enlisted Marines. The Marine Corps excels at providing service training for specific jobs skills and developing the leadership skills within the enlisted force. However, until now, it did not have an accredited institution to educate the enlisted force in naval relevant topics. Developing our emerging enlisted Marine leaders early in their career, through the combination of naval studies, general education (21st century skills), and naval-relevant concentration-related courses, will help to develop more agile and effective units that can respond to challenges as they emerge. The USNCC is a valuable resource for the Marine Corps as it provides the unmatched venue to educate sailors and Marines to succeed in modern warfare and places them on a path for lifelong learning.

Notes

1. Gen Charles C. Krulak, “The Strategic Corporal: Leadership in the Three Block War,” *Marine Corps Gazette*, (Quantico, VA: January 1999).
2. Headquarters Marine Corps, *MCDP 7, Learning*, (Washington, DC: March 2020).
3. Department of the Navy, “Education for Seapower Report,” (Washington, DC: May 2018).
4. The Naval University System Consists of Marine Corps University, Naval War College, United States Naval Academy, and the Naval Postgraduate School.
5. Angelle Khachadoorian, Susan Steen, Lauren Mackenzie, “Metacognition and the Military Learner: Pedagogical Considerations for Teaching Senior Officers in Professional Military Education,” *Journal of Military Learning*, (Fort Leavenworth, KS: Army University Press, April 2020).
6. Ibid.
7. Robert Kozloski, “Understanding the Naval Learning Ecosystem,” *CHIPS*, (July–September), available at <https://www.doncio.navy.mil>.
8. Ben Werner, “Focus on Critical Thinking is Key in New Navy Education Study,” *USNI News*, (August 2018), available at <https://news.usni.org>.



The Infantry Marine

A multidisciplinary perspective

by Maj Elliott Arrington & Col David C. Emmel

With the current and projected geopolitical challenges posed by peer and near-peer competitors, the Commandant of the Marine Corps declared a need for change to ensure the Marine Corps' continued relevance to the Nation. As he states, the "defining attributes of our current force design are no longer what the nation requires of the Marine Corps."¹ Discussions spurred by the Commandant's *Force Design 2030 (FD2030)* have fostered emergent ideas such as the *arms-room concept* and *multidisciplinary infantry Marine* as potential ways for the Marine Corps to adapt to meet the varied challenges inherent in the future operational environment. Although these ideas merit exploration, they must be grounded in reality, specifically regarding the constrained duration of entry-level infantry training, acquired levels of weapons proficiency, service resource limitations, and the advantages of weapons specialization.

The arms-room concept and desire for multidisciplinary infantry Marines emerged based on the need for decentralized operations where small, dispersed infantry elements, as part of stand-in forces, require individual Marines who can employ multiple weapons systems to meet mission requirements. Given the limited resources available in distributed operations, Marines must be able to do more with the finite resources available to them. In the arms-room concept, as then-BGen Watson, head of Marine Corps Warfighting Laboratory, states, "Your Marines would be trained in all [weapons] ... and then you pick the weapons suited to the mission. It's producing a more mature, sort of multidimensional utility infilder as an infantryman."² In other words, the

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"SOF-like" and "MARSOC-like" are effective descriptions of the capabilities envisioned for future infantry Marines; however, the training requirements are difficult to achieve. (Photo by Cpl Patrick Crosley.)

arms-room concept affords commanders greater flexibility in task organizing and equipping their forces based on specific mission needs, given their Marines' multidisciplinary skillset and increased weapons qualifications.

To address the significance of these changes, some may offer similes such as "SOF-like" or "MARSOC-like" to illustrate the additional leverage conventional infantry battalions could draw from in the future. These adages are most often applied to the expected flexibility afforded to commanders when a unit's infantry Marines qualify on multiple weapons systems. In theory, this allows

their employment to be based on specific mission requirements. Such a construct conjures up images of small groups of Marines streaming through the armor and outfitting themselves with the weaponry their leaders identified for an upcoming mission that may—for the sake of illustration—weight machine-guns and mortar employment over anti-armor capabilities.³ While undoubtedly beneficial and certainly aspirational, the notion of every basic infantryman receiving specialized training on the preponderance of weapons systems organic to an infantry battalion (without significant resourcing increases) proves

problematic.⁴ Ongoing Service-level experimentation is currently assessing this multidisciplinary Marine construct through the Infantry Battalion Experiment 2030 initiative. Nevertheless, the Marine Corps' mass production model for entry-level infantry training naturally conflicts with the development of a broad variety of weapons-related competencies, especially when the available duration of training time and the number of resources is constrained.

For reference, the current Basic Infantry Marine (BIM) course taught at the Schools of Infantry (SOI) takes just over two months to complete. All infantry Marines train together for approximately four weeks covering individual infantry skills and then separate into specific groups to conduct four more weeks of specialized weapons courses, thereby gaining their respective MOS.⁵ Applying this production model to train the desired multidisciplinary infantry Marine (qualified in all entry-level infantry MOSs) would take the SOIs more than five months to achieve. This drastic increase in training time proves problematic for multiple reasons. The longer duration of the training pipeline and the lower output of graduates resulting from fewer course iterations each year creates throughput issues at the SOIs. This situation results in an ever-increasing population of Marines awaiting training until the start date of the next course; consequently, Marines will not have enough time to operationally deploy twice on a first-term enlistment.

In response to *FD2030*, while also recognizing resourcing realities, the SOIs developed a fourteen- and eighteen-week option for transforming infantry training based on the perceived skillset required of future infantrymen. These two variations build upon the existing BIM course to improve the proficiency of graduates in weapons-related training as well as other infantry competencies. With fourteen weeks, Marines receive additional training on medium machineguns, anti-armor weapons (minus the Javelin), and 60mm mortar employment (in handheld mode only).⁶ The eighteen-week course progresses this process further and includes training on

heavy machineguns, the service pistol, and the Javelin system. Each of these options ultimately endeavors to increase the combat lethality of infantry Marines. However, despite the longer duration of these courses, Marines still do not attain the skills many envision necessary to be a multidisciplinary Marine—at least as it relates to specialized proficiency in all infantry weapons systems.

... Service-level experimentation is currently assessing this multidisciplinary Marine construct ...

Beyond the ramifications of limited training time and the varying degree of proficiency for entry-level infantry Marines, the Service must also contend with the subsequent and substantial increases in resources each course requires. Irrespective of the fourteen- or eighteen-week option, there exists a need for supplemental staff and support personnel in addition to the current SOI organizational structures. These personnel serve as additional combat instructors, training company staff, and regimental enablers like motor transport drivers, optics technicians, and corpsmen. Longer, overlapping courses with increased time spent in the field also drive a corresponding growth in logistical needs, most notably transport vehicles. Furthermore, the influx of permanent and student personnel along with expanded training requirements necessitate the construction of new berthing and training facilities in addition to other fiscal increases to cover costs of training consumables, maintenance, and weapons replacement.

Taking all these factors into consideration, the SOIs are in the process of transitioning to the fourteen-week Infantry Marine Course (IMC) which—in relation to developing multidisciplinary infantry Marines—emphasizes proficiency with the light variants of an infantry company's weaponry (i.e.,

M240, rockets, 60mm mortar). The SOIs are currently in their eleventh IMC iteration, and the results indicate that the effort and investment produce a significantly more proficient infantry Marine who possesses a broader skill set when compared to graduates of the BIM course.⁷ However, the further investment of five and a half weeks of training, while beneficial, is not sufficient to produce a Marine skilled enough to employ all infantry weapons systems who could be assigned a unitary infantry MOS. Achieving this goal at IMC requires the Corps to invest even greater amounts of time, money, and resources.

In addition to the aforementioned realities of the entry-level infantry training pipeline, the current infantry construct in the FMF promotes the specialization of riflemen, machine gunners, anti-tank assault men, and mortarmen to meet mission requirements. Similar to the challenges of entry-level training, resourcing limitations such as ammunition and equipment shortfalls coupled with demanding and high-tempo pre-deployment training timelines help explain why weapons training and MOS specialization currently exist. Although not necessarily bad, especially in a resource-constrained environment, such actualities regarding MOS specialization impede the goal of creating and sustaining a multidisciplinary infantry Marine in the FMF.

Aggressive deployment schedules aligned to specific mission sets sometimes preclude units from investing adequate time to reinforce skills beyond the basics. With weapons-specific proficiency, this proves especially problematic as high-demand and low-density equipment along with limited ammunition inhibit routine training opportunities, such as anti-armor infantry Marines who are fortunate to shoot a single live-fire Javelin missile during their enlistment. As a result, even when focusing on fewer Marines to receive specialized MOS weapons training, FMF units remain hard-pressed to ensure sustained proficiency—let alone to effectively advance weapons skills.

Assuming that commanders will be able—and have the desire—to system-



The SOI-East, Infantry Marine Course is a fourteen-week program designed to modernize infantry training by improving efficiency and lethality. (Photo by Cpl Christian Ayers.)

atically rotate Marines to train them on all infantry weapons systems, this runs counter to the natural proclivity to assign the most proficient Marines to specific weapons systems. Commanders incur greater risk when spread loading limited time and resources to train all infantry Marines in all 03XX MOSs by potentially achieving a lower baseline of proficiency than would be realized if Marines concentrated on just one. In resource-constrained environments, specialization should not necessarily be viewed negatively. While the preferred course of action may be to thoroughly train multidisciplinary infantry Marines, the heavy resourcing implications indicate this training methodology may not be feasible with today's force. This brings into question the viability of teaching, resourcing, and training *every* Marine on *every* infantry weapons system, especially with the current fiscally-constrained environment.

Addressing the potential issues surrounding the anticipated development of multidisciplinary Marines and the arms room concept highlights the key (and uncontested) point that the status quo must change. The current BIM course graduate does not meet the requirements for tomorrow's battlefield in which the infantry must rely on well-rounded, critical-thinking Marines able to employ multiple weapons systems. With that in mind, the SOIs have developed and

implemented improved training methodologies incorporating adult learning tenants that, along with a longer duration course, better prepare infantry Marines for service in the FMF. With the new IMC, the SOIs produce more proficient and lethal infantry Marines trained on the light variants of all infantry weapons systems. These combat-capable, "multidisciplinary-light" Marines are better poised for continued development as they progress along the infantry training continuum, building upon the SOI's introductory weapons training.

The current reality as the Service implements *FD2030* illustrates that there remains an ongoing need for specialized, weapons-related, MOS training—at least in the near to midterm. As a result, the SOIs are currently revising follow-on four-week weapons MOS courses focused on the heavier variants of the infantry weapons systems. This additional training will produce even better results and progress skills beyond the current state based on IMC graduates who are more tactically-proficient, critical-thinking Marines capable of higher level, independent thought, and action. Fewer Marines conducting this specialized weapons training following their graduation from IMC also maximizes the use of limited resources to meet current FMF needs.

As part of the training continuum, infantry units receiving these entry-level

Marines must focus efforts to effectively build upon this foundation, advancing the proficiency of Marines on multiple weapons. Besides training in the FMF, Marines must still return to the SOIs to attend advanced infantry courses and realize even greater levels of skill acquisition needed to be multidisciplinary.⁸ This partnership between the FMF and the SOIs, informed by Service-level experimentation and supplemented with Marines' self-directed learning, provides a path to creating the multidisciplinary Marine needed to overcome the inherent challenges as stand-in forces and keep the Nation's adversaries at risk.

Notes

1. Gen David H. Berger, *Force Design 2030*, (Washington DC: March 2020).
2. Gina Harkins, "The Marine Corps is Experimenting with a Concept that Could Reshape the Infantry," *Military Times*, (April 2021), available at <https://www.military.com>.
3. MajGen Julian D. Alford, "Implementation of the Hunter Killer Platoon," *Marine Corps Gazette*, (Quantico, VA: February 2022).
4. Some skillsets and weaponry require specialized training beyond entry-level training (e.g., scout sniper and 81mm mortar weaponry/employment).
5. These additional four weeks qualify Marines for specialized MOSs of 0311, Infantrymen; 0331, Machine Gunners; 0341, Mortar Men; and 0352, Anti-Armor Assault Men.
6. The specialized training needed for the mortar systems coupled with the low density of systems in operational units requires dedicated follow-on training for both the 60mm and the 81mm mortars.
7. This number reflects eight completed IMC courses with an additional three iterations in progress between the SOIs as of 1 April 2022.
8. The courses offered at the SOI's Advanced Infantry Battalion encompass training on advanced infantry skills to include infantry weapons systems and small-unit leadership.



The 21C Infantry Marine

A modernized approach to training

by Mr. Bob George & Col David C. Emmel

The mass-production approach to training that inundates Marines with overwhelming amounts of information in a short period of time, with an expectation that additional knowledge and skills will be obtained while on the job, does not effectively meet the challenges of the future. The Commandant explicitly states in his planning guidance that, “we will not train without the presence of education; we must not educate without the complementary execution of well-conceived training.”¹ Therefore, the Marine Corps can no longer afford to train infantry Marines as if they are a product coming off an assembly line. Instead, it must align well-conceived infantry training efforts along a continuum to better foster the development of critical thinking Marines who can excel in tomorrow’s more complicated operational environment. To better meet future operational challenges and serve 21st-century infantry Marines, the Marine Corps must evolve its training approach by focusing on outcomes while emphasizing the acquisition of skills within specific infantry competencies that are aligned to the infantry training continuum.

This infantry training continuum begins at the Schools of Infantry (SOI), continues throughout a Marine’s time in the FMF, constantly linking back to the SOIs and other training centers. As knowledge repositories, these schools facilitate a modern, holistic approach to development where students are responsible for their learning. Leaders then must embrace and reinforce this learning to further long-term retention and promote a life-long pursuit of knowledge in

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their Marines. To maximize the benefits of this continuum, the Marine Corps must first discard antiquated and less effective training techniques and methods.

The training approach that relies on passive learning—where an instructor stands in front of the students and tells them what they need to know—combined with demonstrations on what they need to do, followed by supervised practical application of those skills, falls short in meeting the needs of the student, both physically and cognitively. Physically, they are simply performing muscle memory movements, and cognitively they are memorizing just enough facts to pass a test. They are not responsible for their learning in this type of training; rather, they are viewed as just sponges that are supposed to absorb all of the information presented to them, regardless if it makes sense or not. This is a short-term tactic where knowledge and skills are more often than not forgotten shortly after they are acquired.

This training methodology usually assesses the skills Marines learn in isolation by executing steps on a checklist to demonstrate mastery. This proves problematic in that the term “mastery” implies in-depth or comprehensive levels of proficiency. In reality, this moniker is awarded to those who simply complete tasks on a prescribed checklist, not even accounting for how well or how poorly a Marine demonstrated a skill.

In the mastery paradigm, Marines fail to demonstrate an ability to perform multiple skills at once, which is essential to building context and long-term retention. Furthermore, this approach to training typically relies on the false premise that Marines will continue to progress those learned skills during on-the-job training and that the memorization of multiple acronyms assist a Marine in recalling important information.

To illustrate, when company-level units plan training, the unit references the infantry training and readiness

Using the antiquated “PECLing” method as the goal for mastery each T&R event is tested separately:

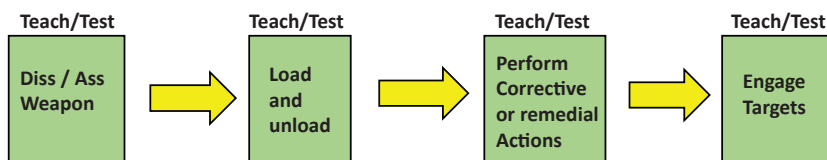


Figure 1. (Figure provided by author.)

(T&R) manual to identify those company-level tasks that align with their mission and the ambiguous criteria required to demonstrate mastery of those tasks. Training then takes the form of practice sessions with those vague standards of company-level T&R events as goals. Like football practice, the unit runs multiple sets and repetitions of prescribed scenarios to demonstrate completion of those indistinct standards established in the T&R manual. Often, this occurs with modest increases in how the unit performs those tasks, negating the need—and even desire—for any further development or refinement.

Unfortunately, when Marine leaders use a checklist to assess their unit's proficiency or readiness, the approach only focuses on the overall company-level outcome and fails to account for—and instead promotes—a lack of understanding by Marines as to their roles and responsibilities within the unit, as well as the effects they have on the overall success of the unit. In other words, Marines often lack context. Despite some who believe and even argue that this checklist model served the Marine Corps well enough in the past and does not require change, it no longer best supports the needs of current and future infantry Marines who must understand their detailed role within the unit to be truly successful.

This poses a serious problem when training warfighters for the 21st century and beyond because they will be expected to think critically, make decisions, perform their learned skills, and operate as members of a team. Transitioning from telling Marines what they need to know and how they will be tested to active-learning environments where they instead apply skills in situations that resemble future operating environments is a challenge that must be accepted and embraced. No longer must lecturing and talking at the students be the mainstay for instructors to impart knowledge to passive students. Rather, Marines must be active and willing participants in their role as life-long learners.

To effectively meet this challenge, the current infantry training paradigm must adapt. Rather than force-feeding

knowledge to those who often do not even recognize that they are hungry, leaders must focus heavily on the development of Marines who are responsible for their own learning, sustainment, and progression as they perform their duties in the FMF. This training approach takes the form of student-centered, active-learning environments where

... the SOIs utilize an approach that moves from training in isolation to one that applies T&R events within collective environments ...

Marines seek out information and assume ownership of their learning. It also relies on the students' ability to relate the skills and knowledge they acquire to what they already know, rather than simply absorbing what is presented by subject-matter experts. Another key tenant of this approach is that it requires Marines to reflect on and learn from their prior experiences. Reflecting on what was learned and how it was applied enables Marines to be more flexible and

of requiring additional time-consuming training that the gaining unit cannot afford. *MCDP 7* describes this learning continuum as:

Institutional processes such as recruit training and formal schools set[ting] the conditions for a culture of learning. Commanders in the fleet reinforce those initial processes, setting the conditions for a culture of learning that encourages Marines' adaptability, problem solving, initiative, reasoning, and innovation while maintaining structure, discipline, and readiness.²

Embracing the tenets of *MCDP 7*, the SOIs utilize an approach that moves from training in isolation to one that applies T&R events within collective environments in support of an essential competency. Marines perform the multiple skills (T&R events) associated with each competency, simultaneously or throughout an event, allowing them to gain an understanding of how those skills affect each other, as well as how they affect lower- and higher-level skill-sets.

To facilitate this change, the SOIs, in concert with multiple representatives from the FMF and higher headquarters, developed 39 infantry competencies. Each competency depicts the skills a Marine must know and perform and is inclusive of the T&R events required to demonstrate that knowledge and skills.

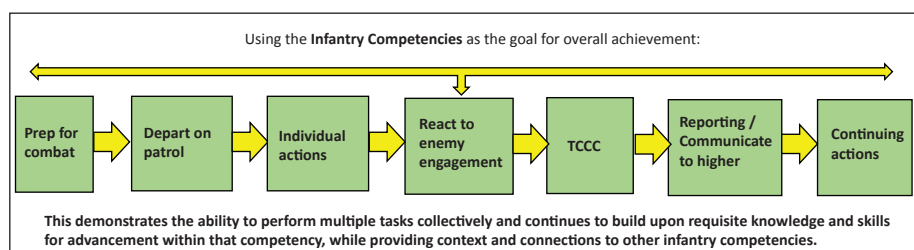


Figure 2. (Figure provided by author.)

adaptable when those skills are applied again in the future and also promotes critical thinking, communication, and innovation.

As part of the infantry training continuum, the SOIs developed, and are introducing, a competency-based approach to training that focuses on preparing Marines to perform as contributing members of their team instead

The use of these competencies differs from relying solely on T&R events because they go beyond describing the conditions and the standards that must be met. Rather, they identify all the skills that must be performed collectively. To illustrate, employing the rifle is not limited to just achieving effects on target for a single T&R event. It encompasses all aspects of employment

#	Infantry Competencies	#	Infantry Competencies
1	Employ the Service Rifle	21	Employ C4I
2	Optimize Human Performance	22	Operate in Compartmentalized Terrain
3	Embody the Marine Corps Philosophy of Warfighting	23	Operate from a Combat Platform
4	Employ Observation Devices	24	Conduct Rope Suspension Techniques
5	Employ Target Designators	25	Conduct Breaching
6	Conduct Fire and Movement	26	Employ Organic Indirect Fire
7	Employ Demolitions	27	Employ Mortars
8	Employ Pyrotechnics	28	Handle Small-Arms Threat Weapons
9	Employ Grenade Launchers	29	Employ Counter sUAS
10	Employ Machineguns	30	Employ sUAS
11	Employ Anti-Armor	31	Employ Organic Precision Fires
12	Employ the MAAWS	32	Employ Aviation Delivered Fires
13	Tactical Combat Casualty Care	33	Employ Non-Organic Direct Fires
14	Conduct Field Craft	34	Operate a Tactical Platform
15	Manage Signature	35	Operate in an Aquatic Environment
16	Navigate to an Objective	36	Conduct Austere Environment Sustainment
17	Perform Individual Actions in a Patrol	37	CBRNE
18	Conduct Surveillance	38	Employ the Service Pistol
19	Defend a Position	39	Support Non-Kinetic Engagements
20	Process Combat Orders		

Figure 3. (Figure provided by author.)

including disassembly and assembly, loading and unloading, zeroing, range estimation, corrective action, optics, target engagement, and continuing actions. This now allows for multiple T&R events to be used in support of the skills required instead of simply concentrating on one. By focusing on performing multiple skills at the same time, Marines have the opportunity to put all of the skills in context and recognize how they relate to other skills. Twenty-one of the infantry competencies listed in Figure 3 are trained and assessed in the new Infantry Marine Course, and thirteen of those are trained and assessed within the Marine Combat Training (MCT) course as part of the rifleman continuum.³

This alignment of competencies and T&R events works well for Formal Learning Centers, but what does this mean for the operating forces? It means that Training and Education Command needs to develop T&R tasks that support a competency and the progression of skills and knowledge throughout the infantry training continuum. This does not mean that T&R standards are ignored. Just the opposite. They are essential building block skills that must be learned, practiced, and assessed prior to demonstrating them collectively to achieve the overall outcome of training. Instead of focusing on the mastery of T&R events to demonstrate perceived knowledge and skills that are specific

to each event, the focus changes to assessing the skill acquisition level (SAL) a Marine attains for each infantry competency.

This approach provides a more complete measure of a Marine's abilities compared to that of simply demonstrating the elements of a checklist associated with a single T&R event. The five skill levels starting with novice and progressing through advanced beginner, competent, proficient, and expert allow for a holistic assessment and align with the infantry training continuum. Much like a fitness report, each SAL contains a descriptive narrative highlighting what the Marine must demonstrate to achieve that specific level (see Figure 4 for a general description of the different levels).

On the surface, this approach appears to be nothing more than the use

of T&R events all conducted together, just like the company-level training described earlier. That would be a fair assessment, and to some extent the point, if it were not for the focus on the competency and the inclusion of SALs. By changing the focus from demonstrating steps on a checklist to infantry competencies, the T&R events become the steppingstones to greater knowledge and skill retention. With a competency mindset, lower-level skills must be learned, practiced, assessed, and consistently maintained to demonstrate them collectively.

Utilizing SALs removes the checklist mentality of *one and done* and the progression of those skills in time and proficiency then becomes the focus. In other words, a Marine can use the infantry training continuum as a road map for skills progression and the SALs to identify their strengths and weakness within each competency for future focus and development. This collective application of events also continues to build upon requisite knowledge and skills for progression while providing connections to other infantry competencies. Marines received from the SOIs no longer require months of additional training just to perform as a contributing member of a team. Contrary to the past when infantry students at the SOIs demonstrated skills taught but still lacked a general understanding of where and when to apply them, they are now more "plug and play," having been introduced to skills that enable them to continue their personal and professional learning and development.

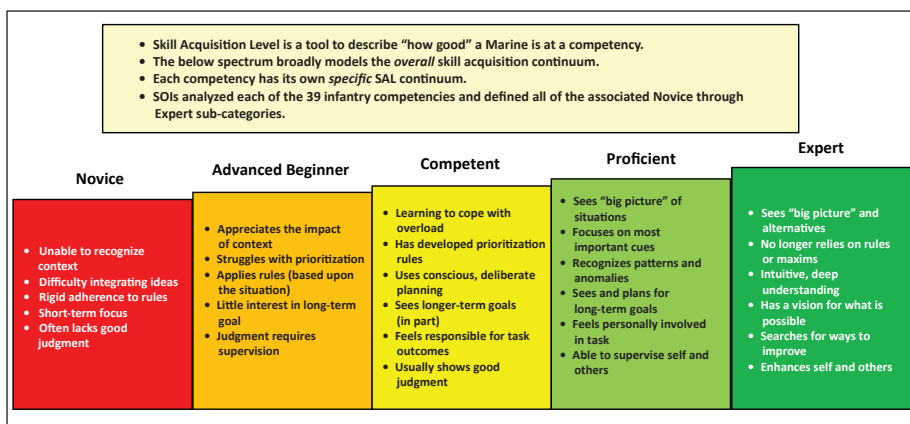


Figure 4. General overview of skill acquisition levels. (Figure provided by author.)

This ability to perform skills when and where required is essential to continued success on the battlefield and the ability of the organization to sustain and thrive in future resource-constrained operating environments. Marines must understand how they fit into the bigger picture and how it changes and evolves as they progress through the infantry training continuum and rank structure because their actions have effects on the

the educational outcome for the learner, vice content to memorize.”⁴ The SOIs responded and developed this methodology to better achieve the *38th Commandant’s Planning Guidance* and move toward a combination of training and education to achieve a higher level of understanding and proficiency.

However, these changes must go beyond just increasing the effectiveness and efficiency of training in the infantry,

way ahead by developing essential skills in concert with critical thinking, decision making, and personal ownership. These self-directed behaviors facilitate lifelong learning that will continue throughout a Marine’s career with the necessary reinforcement. In this way, Marine leaders can effectively develop more proficient and lethal Marines able to operate independently on tomorrow’s battlefield.

As part of the infantry training continuum, the SOIs developed ... a competency-based approach to training ...

mission of the unit. By focusing on how to develop Marines and units utilizing the infantry competencies, training no longer resembles a “practice session” that checks off events associated with training. Instead, training establishes opportunities to assess Marines’ units by utilizing the infantry competencies and focusing on the sustainment and development of knowledge and skills they acquired.

For training to adapt and progress for the 21st century, the infantry T&R manual must also evolve and take on a new and intuitive form. Competencies, SALs with descriptive narratives, and alignment of T&R events then become the means to better assess a Marine’s capabilities. This allows the T&R manual to become the resource that aligns the infantry training continuum and that furthers the development of a Marine’s knowledge and skills.

These proposed changes are not novel or unique; they exist in current doctrinal publications, such as *MCDP 1* and *MCDP 7*. They require the Marine Corps to embrace them and make the required policy modifications within training commands and operational forces that ensure their application, adherence, and longevity. As Col Joel R. Powers (Ret) states in his article on 21st Century Learning, Training Command recognizes the need for learner-centric experiences that “Incorporate outcomes-based learning, focused on

they must also facilitate the organization’s ability to operate in future decentralized environments where decisions are made at the lowest level no matter a Marine’s MOS. As previously mentioned, this process has already begun in MCT as part of the rifleman continuum and can be continued throughout the training pipeline for every MOS of the Marine Corps. All MOSs must adopt this way ahead by identifying their own essential competencies, the SALs and accompanying narratives, and alignment of T&R events to achieve them. Obviously, it is not a panacea, but it is currently addressing the organization’s

Notes

1. Gen David H. Berger, *38th Commandant’s Planning Guidance*, (Washington, DC: July 2019).
2. Headquarters Marine Corps, *MCDP 7, Learning*, (Washington, DC: 2020).
3. The Marine Corps Recruit Depots introduce three of the infantry competencies as well. Collectively, the MCRD and MCT train Marines to the advanced beginner skill acquisition level in the employment of the service rifle competency; all other competencies are taught to the novice level.
4. Joel Powers, “21st Century Learning: Professionalizing How We Train and Educate Marines to Sustain a Competitive Edge in the Future Security Environment,” *Marine Corps Gazette*, (Quantico, VA: June 2020).



<p>(Competency): Employ the Service Rifle: Marines are skilled in the handling, operation, maintenance, and engagement with the service rifle suite to include optics, associated SL-3 gear, and aiming devices. Marines instinctively engage threats in a range of combat environments. While engaging threats at varying distances, levels of protection, and formations, Marines reduce threats in support of commander’s intent.</p>				
Novice	Advanced Beginner	Competent	Proficient	Expert
Has an introductory understanding of the fundamentals of rifle marksmanship. With the aid of coaching can operate the service rifle, aiming device, and optic. Struggles to conduct basic operator level maintenance and struggles with immediate and remedial actions. Through coaching can apply the fundamentals of rifle marksmanship within a controlled environment.....	Has a basic understanding of the fundamentals of rifle marksmanship. With the aid of coaching can operate the service rifle, aiming device, and optic. Can conduct basic operator level maintenance and immediate action. With coaching can conduct remedial action. Without coaching can apply the fundamentals of rifle marksmanship within a controlled environment.....	Has a knowledge of the service rifle, aiming device, and optic. Supervises conduct of user level maintenance. Understands and applies immediate and remedial actions. Will be able to identify when higher echelon maintenance is required. Possesses the fundamental knowledge and skills of rifle marksmanship required to move beyond the need for coaching.....	Has a in-depth knowledge of the service rifle, aiming device, and optic. Has a basic understanding of ballistic theory. Possesses the fundamental knowledge and skills of rifle marksmanship while still being able to perform at an advanced level. Has experience and intuitive knowledge in the employment of the service rifle in most situations.....	Has deeply rooted knowledge of the service rifle, aiming device, and optic. Has a firm understanding of ballistic theory. Possesses the fundamental knowledge and skills of rifle marksmanship while still being able to perform at all levels and environments. Has experience and intuitive knowledge in the employment of the service rifle in all situations.....
<p>T&R Events that support this SAL:</p> <p>0300-RFL-1001 0300-RFL-1002 0300-RFL-1003 0300-RFL-1004</p>	<p>T&R Events that support the SAL:</p> <p>0300-RFL-1005 0311-M27-1003 0311-M27-1001 0311-M27-1005 0300-WPNS-2009 0300-OPTS-1001 0311-M27-2002</p>	<p>T&R Events that support the SAL:</p> <p>0300-WPNS-2001 0300-WPNS-2002 0311-TRNG-2001 0931-RNGE-2003 0931-TRNG-2005 0931-TRNG-2006 0931-TRNG-2007</p>	<p>T&R Events that support the SAL:</p> <p>0931-MARK-2001 0931-RNGE-2001 0931-RNGE-2002</p>	<p>T&R Events that support the SAL:</p> <p>0931-RNGE-2004</p>

Note: This figure is purely illustrative and does not contain all elements of this competency.

Figure 5. (Figure provided by author.)

21st-Century Rifleman

**Marine Combat Training Battalion
developing tomorrow's leaders today**

by Capt Ryan J. Love & LtCol Stephen E. DeTrinis

Since the summer of 2019, the Marine Corps has rapidly evolved to meet the challenges that peer competition and the future operating environment present. The Marine Combat Training Battalion (MCT Bn) at School of Infantry-East overhauled its culture, teaching methods, and curriculum, following the *38th Commandant's Planning Guidance*. Directing change to the training and education continuum, Commandant Gen David Berger explained, "We must change the Training and Education Continuum from an industrial age model, to an information age model."¹ Since October 2020, MCT Bn created a student-centered, outcome-based information age learning program of instruction that resulted in entry-level riflemen who are more lethal and better prepared for future challenges.

The future operating environment requires critical thinkers and problem-solvers at all levels. Understanding that it is impossible to predict the next conflict and that competition is continuous, MCT Bn realized it needed to develop a challenging training program that improved thinking and decision making while also placing the student at the center of the experience. The Marine Corps needs riflemen with an expeditionary mindset, a bias for action, and a foundational understanding of leadership because today's entry-level Marines are tomorrow's leaders. To do this, MCT Bn adapted its culture from an instructor-centric one that focused on instructional output to one that concentrated on the learner's experience. Changing culture required a singular

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focus on the battalion's main effort—the combat instructor.

Since its inception in the 1990s, the Marine Combat Training Battalions have successfully prepared riflemen by exposing them to infantry individual training standards in a challenging environment. Each of the combat training battalions typically train between 18 and 20 thousand Marines per year in approximately 40 classes. With a maximum class size of 420 students,

it is more manageable to divide course content up so that each instructor is responsible for one or two classes delivered to the entire company in a large classroom followed by practical application and a performance evaluation. The combat instructors were adept at teaching via the Industrial Age model. It was seen as effective and easier. When the Commandant explained that the Marine Corps needs Marines that can adapt to an ever-changing operational



MCT Bn prepares Marines to serve as riflemen by exposing them to infantry individual training standards in a challenging realistic training environment. (Photo by Cpl Andrew Kuppers.)

environment, he did not qualify the statement by noting rank or MOS groups. Planning teams quickly identified that the best way to ensure Marines possessed the qualities the Commandant highlighted was to focus on laying a foundation of skills and experiences during entry-level training. As a result, Combat Instructors had to change the way they delivered course content. To do that, the battalion had to change itself.

For the entry-level training continuum to challenge students with active learning strategies, the battalion had to convince its people that this would result in better-trained riflemen that are more lethal. Battalion leaders had to challenge their instructors with active learning strategies and teach them how to lead learning using methods more akin to a field grade officer professional military education conference group than an entry-level squad. MCT Bn implemented active learning strategies throughout instructor development to demonstrate value and to ensure the instructor experienced learning in a student-centered environment.

In early 2021, instructors transitioned from troop handlers to squad leaders. In a brief amount of time, the combat instructors prepared to teach all the classes at the squad level (as opposed to platoon or company level) and shifted their focus from how they taught the classes to how the student best learned and retained the information. As the squad leaders for their student squads, the combat instructors became a coach to their entry-level Marines. To complete the transition, these coaches focused on specific outcomes rather than specific processes.² Much like a coach for a football team leads practices (training) throughout the week with a focus on the specific outcomes he or she desires in the weekend's game, this technique emphasizes the practical application of new skills concurrently in varied environments. When effectively applied, this technique improves recall when outside of a sterilized training or educational environment. By focusing on student outcomes, the combat instructor helped create an environment for active learning.

Another fundamental change MCT Bn made was to maintain squad and squad instructor integrity for the entirety of the course. Remaining in the same small group increases the combat instructor's ability to better know the needs of each learner, adapt instructional approaches and problem-scenarios to the needs of the squad, and interleave content based on learner proficiency and aptitude. The smaller groups allow squad instructors to gauge learner understanding and identify problem areas that require focus. By focusing the curriculum on fewer tasks and improving the instructor's position to observe their squad execute tasks in a variety of circumstances, the battalion improved consistency as compared to previous programs that delivered instruction to larger groups in a less personalized manner.

MCT Bn implemented active learning strategies ...

Simultaneous with preparing the combat instructors, MCT Bn transitioned the curriculum to a more focused program of instruction that creates better riflemen. Counterintuitively, the new program is shorter than past versions. Previous programs of instruction trained entry-level Marines in over 35 individual training standards during 29 training days. The new MCT program covers 16 learning outcomes, defined as competencies, in 21 training days.³ The combat instructors evaluate them using skill acquisition levels (SALs). The evolution to competencies and SALs is not a replacement for the *Training and Readiness Manual* but an evolution to "Training and Readiness Manual Next" that migrates away from checklist-based performance standards being the sole metric to achieve mastery. Instead, the SAL describes *how well* a Marine performs the outcome and provides a structure to evaluate skill development throughout a career.

Competencies did not replace the *T&R Manual* individual training stan-

dards (ITS). On the contrary, each one encompasses multiple ITSs. The SALs include five categories that explain a Marine's maturation from novice to expert across a career continuum. Each level along the continuum considers Marines' tactical acumen as well as their leadership and ability to apply the skill in varying environments.⁴ Adopting this approach to deliver course content allowed the battalion to focus on Marine learning needs as opposed to training Marines to an institutionalized checklist or overly prescriptive qualification.

Evolution on this scale required assistance. Key contributors to success included Marine Corps Recruit Depot Parris Island (MCRD PI) and Infantry Training Battalion. MCT Bn worked closely with MCRD PI to ensure entry-level training reflected a continuum that begins at recruit training and continues through the Marine's career. In addition to its already full schedule, MCRD PI adopted 12.5 rifleman hours into its program to ensure the next stop on the entry-level pipeline could develop Marine riflemen with the requisite SAL—novice and advanced beginner—in the 13 rifleman behaviors (See Note 3). In return, MCT Bn included the "5 Marine Attributes" that MCRD PI uses as outcomes during the crucible.⁵ Incorporating the attributes as additional outcomes for each of the rifleman competencies enhanced the training outcomes and problem-based scenarios the combat instructors use during the program while reinforcing the importance of a rifleman career continuum.

In response to the Commandant's direction and intent, MCT Bn transitioned to a program of instruction that fosters an active learning environment. The combat instructors adopted student-centered, outcome-based teaching techniques developed and refined in athletics and academia. As a point of differentiation from the most experienced lecture method, an active learning environment primes the learner by continuously requiring the student learner to recall knowledge and practice skills throughout training. The new program included learning techniques designed to improve recall in diverse environments analogous to

what Marines experience in competition and conflict. Techniques such as scaffolding, interleaving, stacking, and quizzing help improve retention by forcing the learner to recall information throughout the program, whereas previous iterations required learners to recall information during prescribed blocks and the subsequent evaluation. In the new curriculum, instructors creatively pose problems to entry-level students, who then solve them using effortful thinking. This typically begins with the instructor-coach offering the students options but progresses to the students generating their own solutions free of instructor input.

A key characteristic of the student-centered model is that the learner has access to all course material and is encouraged to review the material ahead of meeting with their “coach.” In support of putting students in control of their education, the battalion’s academics section created interactive course content using an online module (MOODLE) (hosted on MarineNet) that entry-level Marines use during non-training hours to prepare for upcoming events and to learn on their own. On MOODLE, the learners interact with course content in a variety of ways including via live action videos, games, recorded classes, and source documents. The entry-level Marines also gain an appreciation for mission-type orders and commander’s intent in conjunction with the online material. Combat instructors deliver orders that include how to prepare for the next training day, the intent of the training, and information relevant to a tactical scenario culminating in the final exercise. This indoctrination to the orders process builds understanding and fosters decision making throughout combat training while providing a foundation relevant to service in the FMF.

Once training commences, the combat instructor squad leader (coach) reviews material with the squad by asking questions. This is the first quiz the students conduct with the material. The quiz primes learners by requiring them to recall information, which exercises the pathway from long- to short-term memory. Following the brief discussion, the combat instructor assigns billets and



The tough, realistic training MCT Bn provides builds basic infantry competencies in all Marines. (Photo by LCpl Anthony Quintanilla.)

directs student leadership to apply the material practically. For example, students may participate as members of a patrol tasked with crossing a linear danger area. The student squad leader assigns the student fire team leaders their tasks, and they execute the crossing. Once complete, the coach debriefs the action through a combination of leading and open-ended questions. By asking the students what went well, what did not go well, why they made certain decisions, and guiding them as they recall the online material, the coach is leading a third quiz. (The practical application counts as the second quiz since the students had to recall and apply the material they learned the night prior.) The squad instructor (squad leader/coach) highlights areas the squad performed well and the squad’s areas for improvement. This style of questioning is designed to highlight student thinking and decision making and to codify their experience. Most entry-level student squads will not practically apply new material flawlessly. However, failure is an important learning component that helps make learning stick. It builds retention and, as Peter C. Brown, Henry L. Roediger III, and Mark A. McDaniel allude to in their book, *Make It Stick*, retention is learning.⁶ By permitting the student to solve problems, fail to solve problems, and

apply new skills in various scenarios, the Information-Aged model facilitates effortful thinking, generates the skills necessary to learn, and improves recall over time.

As an additional technique to enhance training and knowledge retention, MCT Bn introduced squad instructor time. Previous MCT programs did not include dedicated time to ensure the students learned new material. Following performance evaluations on a topic, the students filed back into the classroom to learn the next material. Now, training days culminate with time purposefully built for debriefs, ethical thinking, and resiliency training. In the new program, instructors lead students through reflection exercises that recall events from the day, apply the events in context, and explore the events in potential future applications. Over time, this effort creates improved retention because the student consistently transfers new skills and knowledge from long-term to short-term memory and back. This recall solidifies the new knowledge and improves recall over time as opposed to sequential, block training programs.

All these purpose-driven changes created an active learning environment for entry-level Marines, improved retention skills (by teaching them how to absorb information), challenged their think-

ing and built a foundation for sound decision making and problem solving. Historically, military training included a sequential, building-block approach to knowledge and skill development. The learning approach MCT Bn adopted varies information and skill delivery and practice by interleaving, stacking, and scaffolding skills and knowledge. To create more lethal riflemen capable of being critical thinking leaders, MCT Bn placed the student at the center of the learning equation and modified the means and methods it used to deliver new information and skills. By focusing on fewer behaviors, MCT Bn improved entry-level Marines' ability to recall skills and knowledge. MCT Bns' evolution to a student-centered, outcome-based program of instruction exemplifies a method for improving training, retention, and preparation for the future operating environment.

Notes

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

2. MajGen William Mullen, "TECOM Vision and Strategy for 21st Century Learning," (Quantico: VA: Training and Education Command, July 2018).

3. The 17 Rifleman competencies are derived from the competencies that comprise the new Infantry Marine Course. The Marine Corps Recruit Depots are the initial trainers for three competencies, while MCT Bns are the primary trainers for 13. MCT Bns sustain and evaluate three of the four competencies that the MCRDs train. MCT Bns do not sustain or evaluate "operate in an aquatic environment."

4. A novice in the "employ the service rifle" behavior requires supervision when conducting immediate and remedial action. An "expert" in the same behavior can design and supervise training for others to enhance their skill acquisition level.

5. The Marine Attributes are defined as "the manifestation of competencies and traits required of all Marines to meet the challenges of the present and future operating environments." See Headquarters Marine Corps, *NAVMC 1510.18D*, (Washington, DC: December 2018). The attributes are physical and mental toughness; leadership; decide/act/communicate; war-fighting; and exemplary character. The attributes help with the transformation by providing focused outcomes for training events.

6. Peter C. Brown, Henry L. Roediger III, and Mark A. McDaniel, *Make It Stick*, (Cambridge, MA: Belknap Press, 2014).



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Enhancing the Infantry Training Continuum

MOS training in support of *Force Design 2030*

by LtCol T.L. Hord, Majs J.T. Snelling & T.W. Fields

LOCATE, CLOSE WITH, and DESTROY: the mission of Marine Corps infantry is to move toward the sound of guns and win our Nation's battles. Stirring images of past and recent conflicts are replete with dusty, bruised, and exhausted combat hardened "grunts" in the heat of storied battles with rifle in hand and determination in eye. The evolving character of conflict requires the constituent elements of the infantry mission statement embrace new methods and techniques to meet the challenges of combat in the modern era.

Central to Force Design 2030, how is the Infantry Training Continuum enhanced to meet the requirements of emergent concepts while retaining the fighting spirit of and ability to fight and win in close combat?

As new capabilities and formations are being developed, it is essential the infantry training continuum is enhanced and synchronized concurrent with Service-level force development activities to ensure the best training is



AITB seeks to maximize individual weapons skills and prepare units to employ weapon systems to create a combined-arms effect . (Photo by author.)

provided to the FMF. Without linkages to updated entry-level training outputs and coordination between experimental organizations, the potential exists for divergences within the infantry training continuum and suboptimal integration of future capabilities and emergent tactics, techniques, and pro-

cedures in support of maritime campaigning.

Seat of the Purpose and the Landward Element of a Fleet

It is well understood decisive battles at sea are not fought for their own sake and are often connected in direct and

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>>>Maj Fields is currently the Operations Officer of AITB, SOI-East. He is a graduate of the Expeditionary Warfare School.

immediate ways to events on land.¹ The tactical interaction of the landward element of a fleet must also be recognized as a key factor in fleet design and the means by which to fight and be sustained in distributed methods. In an era marked by the proliferation of long-range precision guided munitions coupled with advanced sensors, the requirements of the FMF to contribute to maritime domain awareness, close naval and joint kill-chains, and conduct sea denial missions come to the fore in support of the Navy.

Developing naval concepts such as Distributed Maritime Operations and Expeditionary Advanced Base Operations place a premium on maritime campaigning throughout the spectrum of competition. This focused effort along with the creation of experimental formations optimized to generate effects in the seaward space has left the infantry community racing to determine its value proposition in the application of

novel operational concepts and capabilities. For some, defining the value proposition of the infantry in light of change becomes dogmatic and past successes cloud future opportunities. However, with the experimental formations under development, namely the Marine Littoral Regiment (MLR) and the Infantry Battalion Experimentation, the past *is* the exact place to explore roles of the infantry in formations not expressly designed to project combat operations ashore in a landward campaign.

The Past as Prologue: “Force Design 1933” and the Marine Defense Battalion

Before entering into the Second World War, the Marine Corps underwent dramatic changes to fulfill its role with the War Department. Coming out of two decades of irregular conflict in the Caribbean and Central America, sufficient forces became available to experiment with newly developed

concepts and equipment in partnership with the Navy. Envisioned as “a striking force, well equipped, well armed and highly trained, working as a unit of the Fleet under the direct orders of the Commander-in-Chief,” the Fleet Marine Force concept was created in 1933 in an ongoing effort to implement a more structured purpose for the Corps in an integrated naval strategy.² The following year the *Tentative Manual of Landing Operation* was compiled and thus solidified the Corps’ role to support naval operations in the seizure, holding, and defense of advanced bases. With both the amphibious doctrine and the FMF to carry it out, the Marine Corps still needed to develop its procedures and validate the tenets through experimentation. Practical application to achieve these objectives began in 1935 and continued annually until 1941 with the Fleet Landing Exercises taking place at Culebra, Puerto Rico as well as San Clemente Island, CA. Each Fleet Land-

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ing Exercises focused on refining the functional aspects of landing operations, naval surface fire support, aerial support, and sustainment operations ashore. Key in all of the exercises was naval integration of the FMF focused on the exploration of new formations to enable fleet operations and the projection of combat power ashore.

The Marine Defense Battalion was just one of several experimental formations the Corps put forth in the 1930s as ongoing fleet experimentation occurred to enable concepts and contingencies within the RAINBOW Plans. These battalions were designed and equipped to operate within key maritime terrain and “hold area for the ultimate offensive operations of the Fleet” in task organized elements from the landward side of littoral areas.³ The structure of the unit consisted of a headquarters element, antiaircraft batteries, seacoast batteries, ground and antiaircraft machinegun batteries, and supporting logistic elements. The battalions boasted impressive surface and air fires systems aided by specialists with an array of the latest technological capabilities in the way of RADAR and sounding devices. The combined arms capability of the formation made it ideally suited for being a first line force able to secure advanced bases and adjacent key maritime terrain against a multi-domain threat. These battalions task organized detachments around critical capabilities required by the supported fleet and the geographic nature of their location. Their ability to morph commensurate with the enemy surface and air threat made them a highly dynamic unit in support of the fleet during the course of the war.

The example of the defense battalions stands as a worthy parallel study to the development of the MLR and larger force design efforts relating to the infantry. While the battalions served well in their intended missions, they initially lacked the structure of an organic infantry element to provide local security or an offensive capability on their own right. After the Battle of Wake Island, in which the valiant defenders from the 1st Defense Battalion were eventually overrun and captured by enemy landing forces, composite infantry units were in-

cluded in various detachment locations. In subsequent offensive campaigns, infantry elements from division units became common place in locations where defense battalions operated. Though we institutionally remember little of the infantry’s contribution to the defense battalion’s mission, they were essential to ensuring the tempo of fleet operations. While the analogy is no doubt imperfect, the inclusion of infantry units to enable the roles and missions of a landward formation optimized to generate effects in the seaward space can be explored. The inclusion of the Littoral Combat Team within the MLR structure is parallel in thought. This is not to say the infantry is required to change to enable one concept or be able to operate effectively in a single theater. Rather, as the FMF experiments with

a result of the greater emphasis placed on entry-level infantry training and the enhanced output of IMC, the AITB are evolving to support and build upon this superior foundation.

AITB is a combat leadership and hard skills training unit that reinforces the infantry training continuum along recognized touchpoints of a Marine’s career. As such, maximizing those touchpoints is a study in both enhancing individual weapons skills and an understanding of training and preparing units to employ weapon systems at echelon to generate combined arms effects. Ongoing planning efforts to enhance the course offerings at AITB are informed by the output of the IMC. Further, structural feedback mechanisms from division units, and, where appropriate, linkages to Service-level

... the inclusion of infantry units to enable the roles and missions of a landward formation optimized to generate effects in the seaward space can be explored.

new concepts and formations, recognizing how the infantry contributes to evolving missions and defeating global threats present tremendous opportunity for enhanced threat informed training.

The Way Ahead

In line with *Force Design 2030* and current experimentation efforts with emergent concepts, the Marine Corps is investing heavily in the infantry by lengthening and enhancing the entry level training pipeline.⁴ What was an eight-week MOS producing program of instruction (POI) following basic training is now an enhanced fourteen-week Infantry Marine Course (IMC). The goal of the fourteen-week POI laid out in *Force Design 2030* directed Training Command to produce a more capable and lethal infantry Marine. After the IMC pilot courses were introduced, evaluated, and adopted it is clear the updated POI will produce a more skilled infantryman ready for follow-on weapons MOS courses (0331, 0341, 0352) or introduction to the FMF as an 0311. As

advances in experimentation are also key inputs to future course design. The desired end state is to fully align AITB within the infantry training continuum while also synchronizing concurrent Service-level force development activities to ensure the best training for the FMF.

Building Institutional Knowledge by Linking Experimentation and Training

Updating the infantry continuum is not merely a function of course lengths and alignment alone. As experimentation efforts continue the opportunity at Service-level schools to accelerate the adoption of new capabilities and tactics, techniques, and procedures are presented. Exposure to emergent concepts and formations is key to developing infantry non-commissioned officer and staff non-commissioned officers who are the small-unit leaders that will refine and execute these concepts in the near future. The simulation center at AITB-East is working to link its systems



Figure 1. Use of the AITB-East simulation lab to contribute to live, virtual, and constructive experimentation. (Figure provided by author.)



Figure 2. Electro-magnetic planning tool from PROTEUS. (Figure provided by author.)

with the Marine Corps Warfighting Lab (MCWL) and II MEF to participate at the small-unit level in Service-level wargaming exercises. This will provide squad- and platoon-level insights to Marine Corps Warfighting Lab and the MEF while simultaneously exposing aspects of force development activities to the students of AITB. Through the use of various simulations and planning tool software, the AITB students will, in effect, assist in the development of modern tactics, techniques, and procedures for operational concepts and emergent formations. This integration will greatly impact the effectiveness of live, virtual, and constructive experimentation while building institutional knowledge within the Service-level schools and leaders at the small-unit level.

Small UAS and Infantry Integration

Arguably one of the most profound developments in the modernization of the Marine infantry is the integration of organic small unmanned aerial systems (sUAS) and loitering munitions. The Services' first MOS producing sUAS School will stand up under the structure of AITB-East in 2023. This school will produce Marines of the 7316 MOS that will operate Group 1 and 2 systems organic to ground unit Tables of Equipment. This represents a unique opportunity to fully realize the potential of our current and forthcoming systems to extend the lethality of the rifle squad. As sUAS platforms continue to mature, it is essential that the capabilities become as natural to the infantry as the

employment of medium machineguns and mortars while conducting various missions and tasks. By having the sUAS School within AITB, the 7316 student will be fully trained and integrated to operate within infantry formations. In light of the usage of these systems in recent conflicts, the creation of the 7316 MOS and integration of sUAS capabilities represents a fundamental evolution in modern combat where the Marine Corps is poised to lead the way.

... one of the most profound developments in the modernization of the Marine infantry is ... sUAS ...

Conclusion

Recent commentary from retired senior leaders portends a future where the ability of the Marine Corps to fulfill its global crisis response role is in jeopardy. Unfortunate to that commentary, the views expressed reinforce the status quo force while ignoring the changing ways and means of our pacing threats and other threat actors with modern capabilities. To meet these challenges the Corps is adapting, as it always has, to be the most ready when the Nation is least ready. The Marines' history of innovation stands as a testament to the

ability to meet emergent threats while retaining the ethos and fighting spirit of generations past. Today, the infantry training continuum is benefiting from the aggregate of force development activities. While the methods and techniques to LOCATE, CLOSE WITH, and DESTROY have changed, the infantry training continuum will continue to imbue each Marine with tactical fundamentals and the knowledge to employ the new capabilities required to fight and win in any clime and place.

Notes

1. CAPT Wayne Hughes and RADM Robert P. Girrier, *Fleet Tactics and Naval Operations Third Edition*, (Annapolis, MD: United States Naval Institute, 2018).
2. David J. Ulbrich, *Thomas Holcomb and the Advent of the Marine the Corps Defense Battalion, 1936–1941*, (Quantico, VA: History and Museums Division Marine Corps University, 2004).
3. Maj Charles D. Melson, *Condition Red: Marine Defense Battalions in World War II*, (Washington, DC: Marine Corps Historical Center, 1996).
4. Gen David H. Berger, *Force Design 2030*, (Washington, DC: 2020).



Investing in Lethality

The Marine Corps' need for combat instructors

by Capt Marc S. Martinez

As Gen Berger stated in his initial *Commandant's Planning Guidance*, "We need to determine the best way to effect the desired change, which includes the way we select, train, and evaluate instructors throughout the continuum."¹ Regardless of MOS, the three years of experience as a combat instructor is a great investment the Marine Corps makes for the individual Marine and the institution. The aim of this article is to provide information and education on combat instructor duty to result in leaders informing and recommending top-tier Marines to serve as combat instructors. Investment in the combat instructor through opportunities to gain small-unit leadership experience and improve their tactical and technical abilities to shoot, move, and communicate will result in more lethality throughout the Marine Corps. Their positive influence extends beyond the Marines they train in their three years during combat instructor duty to the capabilities they bring to their future unit and continue the training continuum with the units they serve. Serving as a combat instructor is challenging and requires a strong work ethic, but it is equally rewarding in both experience and impact on the Service. The material resources committed to the upfront investment and training of Marines have contributed to advancements within the Schools of Infantry, but there is no greater resource than top-quality Marines serving as combat instructors to increase lethality in the Marine Corps.

Invest in the Marines

The beauty of a formal learning center is the ability to gain experience, reflect, adjust, and apply new ideas or fine-tune the training for a new and improved experience in future courses.

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This allows instructors and leaders the ability to exercise creativity and innovate to accomplish an established learning outcome. This environment builds a natural leadership laboratory for small-unit leaders to learn through failures and success and carry these experiences with them for future assignments. The role of teacher, coach, and mentor to a squad of entry-level Marines fosters a learning environment where students, entry level and advanced, are not afraid to make decisions, learn from their mistakes, and take ownership of their own training and education. A focused effort on developing Marines in knowing *how* to think instead of *what* to think allows for the future leaders of the Marine Corps to improve problem-solving skills. One of the factors that have influenced this success is through maintaining a smaller student to instructor ratio for these relationships to form. A requirement to maintain this ratio is ensuring there are enough combat instructors to support small-unit instruction. Three years of experience as a small-unit leader sets combat instructors up for success when they return to the FMF or supporting establishment (SE) with recognition-primed decision-making skills and the knowledge on how to train Marines to shoot, move, and communicate.

These experiences all feed into the progression of a combat instructor's technical and tactical abilities. Combat instructors become subject-matter experts in warfighting skills, marksmanship coaching, human performance,

and 21st-century learning approaches to transfer knowledge and skills to the student population attending every course at the Schools of Infantry. Combat instructors receive fundamental and advanced marksmanship training through the Marine Combat Instructor Course which results in the additional MOS of 0933 Combat Marksmanship Coach. These marksmanship techniques when applied to entry-level Marines ensure they can achieve a vital hit on a target under stress and provides a strong foundation in marksmanship fundamentals they can build on as they move on to the FMF/SE.

Marines who serve as combat instructors receive several individual benefits from serving in a tier-1 screenable billet in addition to the privilege of creating warfighters. Assignment Incentive Pay (AIP) is a stipend that Marines receive after graduating from the Marine Combat Instructor Course and beginning their 36-month tour as a combat instructor. The amount authorized per month is \$300 or a \$9,800 lump sum.² The amount of AIP combat instructors receive is double the amount of AIP other Special Duty Assignments receive. Combat instructors have additional meritorious promotion opportunities through Training and Education Command and boast a selection rate of 91 percent in regular promotion boards for staff sergeant and gunnery sergeant for the past three years. This result comes from the opportunities presented to non-03XX MOSs to perform and grow outside of their community, as well as infantry Marines continuing to improve their technical and tactical abilities as experts within their community. Marines receive the Combat Instructor Ribbon after a successful 36-month tour of duty. From the Marine's perspective, a benefit of

volunteering for combat instructor duty removes them from consideration by the HQMC Special Duty Assignment Selection Team process. This gives the Marines another option to shape their careers depending on what they desire, geographical location, job fulfillment in developing combat skills in Marines, or the certainty of support systems that come with the major installations of Camp Lejeune and Camp Pendleton.

The Return on Investment

In return for sending the Marine Corps' best Marines to serve as combat instructors, the FMF/SE receive better-trained and more lethal war-fighters. This occurs with the entry-level Marines but also the advanced-level infantry skills Marines receive from the Advanced Infantry Training Battalion (AITB). Some of the Corps'

will permeate throughout the Service.

Marine professionals that understand the guidance from *Talent Management 2030* can lay the foundation and inspire entry-level Marines in a way that increases retention in the Marine Corps. Positive learning experiences in entry-level and advanced-level training lead to retention of our best Marines, for both instructors and students. The goal is to create lifelong learners that enjoy what they do. This falls in line with changing the paradigm of a "recruit and replace" personnel model to an "invest and retain" model.⁴ The benefit of a post-combat instructor duty leader is lost if the Marine does not make the decision to re-enlist to return for service with the FMF/SE. The incentives listed throughout this article should be targeting our best Marines with the aim to mature the force.

Combat instructors serve an essential role in the mission of the Marine Corps in training entry-level and advanced-level Marines in combat skills to win future wars.

most tactically and technically proficient infantry Marines serve in AITBs because of the nature of their occupation. Imagine the return on investment for future Marines that attend their infantry advanced courses when you know the best infantry Marines that you recommended are providing the mentorship and guidance to the students. Combat instructors serve the essential role of ensuring that Marines attending their advanced infantry training progress across the training continuum and possess the ability and maturity to lead their units in combat. This accomplishes the Commandant's desire to make "modifications to advanced infantry training to develop quality, maturity, and capabilities."³ The Marine Corps enjoys these long-term gains from placing an emphasis on combat instructor duty. Surging leaders with a drive to train entry-level and advanced-level skills ensure the increase in lethality

Combat instructors have the ability to make an immediate impact on their units when they return to the FMF/SE. The majority of combat instructors complete their Professional Military Education Course and MOS Advanced Course. Combining PME completion and their small-unit leader experiences, combat instructors arrive ready to serve as a mentor and coach to the Marines in their units throughout the entire battalion lifecycle. This minimizes the amount of time small-unit leaders spend attending school instead of leading and developing their Marines through training exercises or field events, improving the interpersonal relationships and the tangible/intangible attributes of their units. This is applicable to not only the ground combat element but within the wing squadrons and combat logistic battalions. The non-03XX Marines that return from combat instructor duty provide the capability to maintain and

progress Marines' combat skills through the training continuum. Past programs like the Basic Skills Training (BST) failed to fulfill this function because they lacked significant expertise to conduct the program. The intention of the BST was right, and combat instructors are qualified to ensure the success of a program like the BST to progress Marines' combat skills across the training continuum.

Combat instructors serve an essential role in the mission of the Marine Corps in training entry-level and advanced-level Marines in combat skills to win future wars. Commanders do not make an investment to receive an immediate return to their units while in command. They make the investment of informing and recommending their best Marines to serve as combat instructors for the benefit of the individual Marines and the Marine Corps. Combat instructors gain experience as small-unit leaders and progress their abilities to shoot, move, and communicate. They help produce better and more lethal Marines and serve as force multipliers when they return to the FMF/SE. Marines make the Marine Corps.⁵ The best investment to prepare for combat and future conflicts are the best Marines the Marine Corps has to offer to serve as combat instructors.

Notes

1. Gen David H. Berger, *38th Commandant's Planning Guidance*, (Washington DC: July 2019).
2. Headquarters Marine Corps, *MARDAMIN 039/22, Special Duty Assignment Pay, Assignment Incentive Pay, and Volunteer Supplemental Incentive*, (Quantico, VA: February 2022).
3. Gen David H. Berger, *Force Design 2030*, (Washington, DC: March 2020).
4. Gen David H. Berger, *Talent Management 2030*, (Washington, DC: November 2021).
5. Ibid.



Improving our Learning Environment

A proposal to modernize education command

by Capt Eli J. Morales

Education Command must improve its learning environment to reduce the dissonance between what we are doing regarding education and what we need to be doing based on the evolving operating environment. Through an evaluation of Marine Corps University's methods, resources, and peer groups, it is evident that Expeditionary Warfare School (EWS) and Command and Staff College (C&S) require greater naval orientation, that programs of instruction lack the resources and the ability to provide a common understanding of pacing threats in the future operating environment, and that student populations display limited allied and naval integration. Education Command will reduce the gap between education and the evolving operating environment if it integrates classified content into programs of instruction and increases the allocation of allied and naval unrestricted officers within its cohorts.

Background

In the 2019 *Commandant's Planning Guidance*, Gen David H. Berger identified that "the current force is not organized, trained, or equipped to support the naval force."¹ Gen Berger further went on to conclude that within Training and Education Command, he has noticed "over the past several years that there is an increasing dissonance between what we are doing with regard to training and education, and what we need to be doing based on the evolving operating environment."² Gen Berger's guidance directs the need to modernize Marine Corps training and education programs of instruction and institutions. He concludes that

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we need an information-aged approach that is focused on active, student-centered learning using a problem-solving methodology where students are challenged with problems that they tackle as groups to learn by doing and

also by each other."³ Specifically, Gen Berger identified that we must change the learning environment within our formal learning institutions.

In the recently published *MCDP 7, Learning*, the learning environment is defined as "encompassing all the factors that influence instruction, such as methods, resources, technology, culture, instructors, peers, and the social elements of learning."⁴ *MCDP 7* identifies the learning environment

Education Command will reduce the gap between education and the ... operating environment if it integrates classified content and increases ... allied and naval unrestricted officers ...

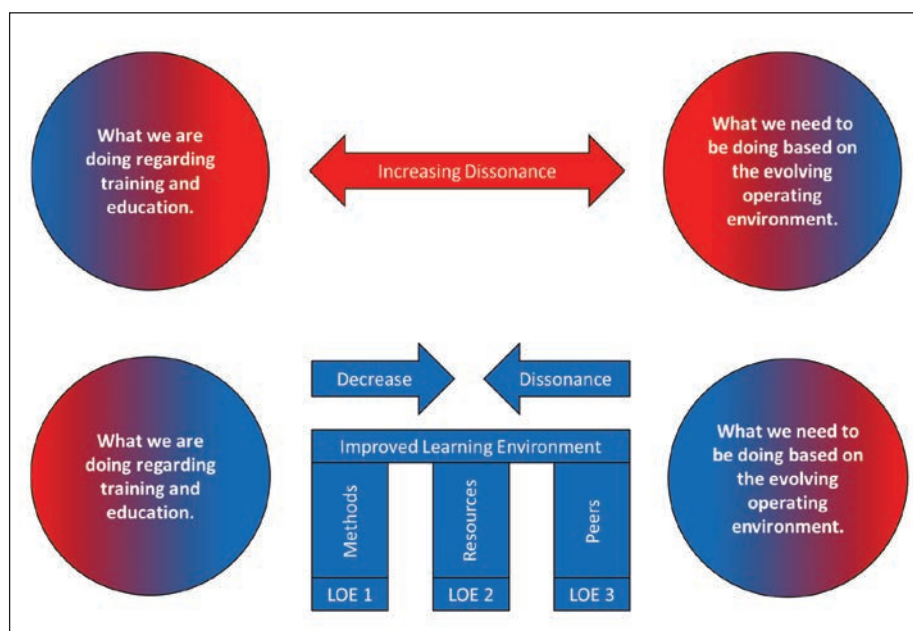


Figure 1. Implementing learning environment lines of effort. (Figure provided by author.)

as much more than just the physical space where learning occurs. Therefore, to determine what change is required within the learning environment of our formal learning institutions, it is necessary to evaluate our current model with the criteria established by the Commandant and the elements that define the learning environment. As shown in Figure 1 (on previous page), *methods*, *resources*, and *peers* are three elements used as lines of effort to decrease dissonance and improve the learning environment.

The criteria established by the Commandant to evaluate each of these elements is the requirement that “all formal schools must and will change their programs of instruction to include a greater naval orientation.”⁵ Additionally, to evaluate *methods*, the Commandant called for the building of a wargaming center on the campus of Marine Corps University. This wargaming center is required to handle all levels of classification and be responsive to changing technologies.⁶ To evaluate *resources*, the Commandant reminds us that the *National Defense Strategy* directs the Marine Corps to focus on new areas along with our Navy counterparts to share a common understanding of pacing threats within the future operating environment. Additionally, the Commandant directs us to focus on “those capabilities that provide the greatest overmatch for our Navy.”⁷ Lastly, to evaluate *peers*, the Commandant reminds us that our alliances are an essential factor in achieving success.⁸ Specifically, he emphasizes their importance when he states, “our wargames have shown that in any great power conflict, our alliances are an essential factor to achieving success.”⁹

With these criteria in mind, we can determine that within the element of *method* Marine Corps University became compliant after it established the Brute Krulak Center for Innovation and Creativity in 2019. Today, the Krulak Center facilitates and encourages novel solutions to current and future warfighting challenges. Working alongside the Wargaming Division at the Marine Corps Warfighting Laboratory, wargaming at all levels of classification

AY2017-2020 MCU Demographics		2017				2018				2019				2020	
		CSC	CSCDEP	EWS	EWSDEP	CSC	CSCDEP	EWS	EWSDEP	CSC	CSCDEP	EWS	EWSDEP	CSC	EWS
Joint	USMC	97	538	182	852	99	587	185	856	99	548	182	848	103	164
	USMCR	5		3		8		3		7		3		6	3
	USA / USAR / NG	22	1	23	5	23	2	22	1	22	5	23		22	23
	USAF / USAFR	17	9	6	1	19	7	6	3	20	4	13	2	19	12
	USN / USNR	18	26	11	3	9	22	3	1	11	21	6	1	12	2
	USCG	2	4			2	2			2	1			1	
Allies	Australia	1				1				1				1	
	Canada			1				1				1			1
	New Zealand	1				1				1				1	
	United Kingdom	1	UNK		UNK	1	UNK		UNK	1	UNK		UNK		
	Japan	1		2		1		2		1		2		1	2
	Republic of Korea	1		1		1		1		1		1		1	1
Total International Students		32	26	23	5	32	28	23	1	31		20	1	30	25
OSD / Civilians		17				19				15	31				19
USMC Sgt(Maj) / MGySgt		2				2				6					
Total Students		212	604	248	866	213	648	242	862	213	610	247	852	212	229

Figure 2. Academic Year 2017–2020 Marine Corps University demographics. (Figure provided by author. Source: Marine Corps University Factbook 2020.)

AY2017-2020 MCU Percent Integration		2017				2018				2019				2020	
		CSC	CSCDEP	EWS	EWSDEP	CSC	CSCDEP	EWS	EWSDEP	CSC	CSCDEP	EWS	EWSDEP	CSC	EWS
Total Students		212	604	248	866	213	648	242	862	213	610	247	852	212	229
USN / USNR		18	26	11	3	9	22	3	1	11	21	6	1	12	2
% Naval Integration		8.5%	4.3%	4.4%	0.3%	4.2%	3.4%	1.2%	0.1%	5.2%	3.4%	2.4%	0.1%	5.6%	0.9%
% FVEY Integration		1.4%	UNK	0.4%	UNK	1.4%	UNK	0.4%	UNK	1.4%	UNK	0.4%	UNK	1%	0.4%
% JPN/ROK Integration		1%	UNK	1.2%	UNK	1%	UNK	1.2%	UNK	1%	UNK	1.2%	UNK	1%	1.3%

Figure 3. Academic Year 2017–2020, Marine Corps University percent integration. (Figure provided by author. Source: Marine Corps University Factbook 2020.)

is conducted in accordance with the Commandant’s guidance.

Within *resources*, it is important to note that the programs of instruction for resident and non-resident EWS and C&S are taught at the unclassified level. As a result, scenarios during practical applications are fictitious. Although they are based on attributes of our real-

Lastly, within *peers*, the 2020 edition of the Marine Corps University Factbook indicates resident and non-resident EWS and C&S courses achieved limited allied and naval integration. As indicated in Figure 2, allied integration for resident EWS and C&S is primarily achieved through single student participation from countries like the United

Marine Corps University academic chairs and scholars are used by the institution to provide simulated geopolitical and military considerations of our adversaries.

world adversaries, in many cases these attributes are a misrepresentation of our pacing threats’ real capabilities. Training against a fictitious threat inhibits our ability to understand our competitors within the future operating environment and the capabilities that will provide the greatest overmatch for our Navy. To help bridge the gap between fiction and reality, Marine Corps University academic chairs and scholars are used by the institution to provide simulated geopolitical and military considerations of our adversaries. However, this instruction is also being provided at the unclassified level and is still fictitious in nature.

Kingdom, Canada, New Zealand, and Australia.¹⁰ In addition, for our Korean and Japanese allies in the Pacific, we are only seeing a small increase of one or two students annually.¹¹ By achieving a limited amount of allied integration within resident and non-resident EWS and C&S, Marine Corps University is stymieing the potential to enhance our relations with our closest strategic allies from around the world.

Also contained within *peers* is the distinct lack of naval integration that occurs within the student population. As indicated in Figure 3, the emphasis and synthesis of naval concepts will degrade

if the participation of Navy students attending resident and non-resident EWS and C&S continues to reduce. Specifically, for resident EWS, Navy student participation has decreased from 4.4 percent to .9 percent (11 to 2 students).¹² For resident C&S, Navy student participation has decreased from 8.5 percent to 5.6 percent (18 to 12 students).¹³ This lack of Navy student participation within resident and non-resident courses significantly reduces the potential for Marine Corps University to achieve the Commandant's vision of including greater naval orientation within our formal learning institutions.

Proposal

To begin improving the learning environment within Marine Corps University resident and non-resident EWS and C&S, I recommend that—in the short term—modeling and simulation be conducted on a variety of student cohorts and their associated content. Simultaneously, I recommend that the programs of instruction begin eliminating fictitious content and begin utilizing current and relevant real-world naval challenges and threats. Table 1 displays several examples of how modeling and simulation can combine a variety of student cohorts and their associated content. These groups can be tailored and designed to address specific problem sets from the FMF that require urgent assistance in the development of concepts, plans, and strategies with our strategic allies. The tradeoffs provided in Table 1 range from Five Eyes Alliance (FVEY) nations, NATO, or INDOPACOM only cohorts to reducing Army, Air Force, and Marine Corps allocations in an effort to increase Navy student participation.

Based on the results of modeling and simulation, if appropriate and feasible, I recommend that in the long term Marine Corps University begins to integrate more classified content into resident and non-resident EWS and C&S. As these changes are implemented, Marine Corps University must make staffing and physical security modifications. Displayed in Table 2 are proposed modifications that Marine Corps University can implement that

Modeling & Simulation Examples

1. One USN unrestricted officer per EWS and C&S cohort. Reduce Army, Air Force, and Marine Corps allocations as required.
2. Only FVEY international officers placed in resident courses. Course content is taught at the S//REL FVEY level of classification.
3. Non-FVEY International officers participate in non-resident seminars with USM non-resident students. Utilize unclassified course content.
4. Only NATO international officers placed in resident courses. Course content is MARFOREUR / Russia focused.
5. Only INDO-PACOM international officers placed in resident courses. Course content is MARFORPAC/China-focused.

Table 1. Modeling and simulation examples.

Proposed MCU Modifications

1. Increase USN instructors at EWS and C&S. Preferably, Amphibious Warfare Weapons and Tactics Instructor qualified USN Surface Warfare Officers.
2. Increase the manning of FVEY instructors at EWS and C&S.
3. Establish structure within MCU for a S//REL FVEY Intelligence Production and Analysis Cell to support all MCU Colleges and Schools.
4. Augment Academic Chairs and Scholars with intelligence community subject-matter experts to provide current intelligence within resident geopolitical and adversary briefs.
5. Establish a closed secret network within Geiger and Warner Hall.

Table 2. Proposed Marine Corps University modifications.

I recommend that in the long term Marine Corps University begins to integrate more classified content into resident and non-resident EWS and C&S.

will enable the successful execution of these long-term modifications. These include increasing the manning of Navy Amphibious Warfare Weapons and Tactics Instructors, establishing an intelligence production and analysis cell within Marine Corps University, and establishing a closed secret network within Geiger or Warner Halls.

Modeling and simulation will present challenges to modifications attempted at Marine Corps University. Any attempts to modify a program of instruction, change instructor staffing, adjust student cohorts, or revisit security protocols will require deliberate planning and wargaming. Changes

made must be in compliance with the Commandant's guidance and ensure Marine Corps University maintains its capacity to develop and deliver professional military education and training through resident and non-resident learning programs. Therefore, any changes made must not degrade Marine Corps University's mandate to provide Joint Professional Military Education Phase 1 Accreditation through C&S. The intent behind these recommendations is to adjust the focus of discussion and practical applications to include greater naval integration while considering real-world maritime challenges. Formal instruction and evaluation on the history

and fundamentals of our joint doctrine must not and will not change.

Conclusion

Education Command must modernize its learning environment within EWS and C&S to meet the Commandant's guidance of becoming a highly trained and educated corps that is capable of supporting the naval force. Using the Commandant's guidance as criteria along with our doctrine published within *MCDP 7*, we are able to determine that our *methods, resources, and peers* must change within our resident and non-resident programs of instruction. Modifications within each learning environment indicate that greater naval orientation can be achieved through the integration of threat-based classified content into programs of instruction, as well as an increase in allied and naval unrestricted officers within the student population. Modeling and simulation, wargaming and experimentation, and

deliberate planning are required to implement necessary changes to each program of instruction. Ultimately, the effects of these changes will have positive impacts on the future Navy and Marine Corps force. By modernizing Education Command, the Navy and Marine Corps team will be better prepared to fight and win in the future operating environment.

Notes

1. Gen David Berger, *38th Commandant's Planning Guidance*, (Washington, DC: July 2019).
2. Ibid.
3. Ibid.
4. Ibid; and Headquarters Marine Corps, *MCDP 7, Learning*, (Washington, DC: 2020).

5. *38th Commandant's Planning Guidance*.

6. Ibid.

7. Ibid.

8. Ibid.

9. Ibid.

10. Staff, *Marine Corps University: Factbook 2020*, (Quantico, VA: Marine Corps University, 2020).

11. Ibid.

12. Ibid.

13. Ibid.



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10 YEARS OUTSIDE

A CREATIVE WRITING CONTEST

The Marine Corps is in the midst of a paradigm shift as it conducts Force Design to prepare for the future fight. The character of warfare is constantly evolving and there is opportunity to learn about the changes to the operating environment through an analysis of recent conflicts, particularly those that did not directly involve the U.S. military. Select a recent conflict from the past 10 years that did not directly involve the U.S. military, analyze the relevant aspects of the conflict, and assess its implications to the Marine Corps and force design.

Open to all Marines!

Submissions due 1 June 2022, send entries to: the_krulak_center@usmcu.edu

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An Intellectual Maginot Line

Professional reading to overcome “conventional wisdom”

by Dr. James Herndon

When the dictator’s crimes threatened the safety of other nations, a far stronger state launched a pre-emptive invasion. Battle-hardened and emboldened by recent victory, their overwhelming superiority in technology and firepower allowed them to take the enemy capital within weeks. Evidence of the regime’s crimes littered the landscape. Never mind the cynical maneuvering at the UN, this was clearly a humanitarian intervention. However, their plans for the occupation of that impoverished country soon fell awry. The populace resented foreigners and rejected the figurehead leadership of the new government. Soldiers from the old army faded into the countryside or found sanctuary in bordering nations. The insurgents’ guerrilla tactics stymied the static occupiers. After much trial and error, a second generation of generals settled on a counterinsurgency strategy that relied on local troops fighting close to their homes. A frustrating and indecisive decade passed before they finally withdrew. Only then did the real battle for power ensue.

Who could have foreseen in 2003 how Operation IRAQI FREEDOM would play out? Perhaps someone familiar with the Vietnam-Cambodia conflict of 1978–1989, the war described in the preceding paragraph. In retrospect, the Cambodia analogy seems obvious: an economically backward society with no history of effective central government is a much better template than, say, Japan or Germany, two ethnically homogeneous countries with a coherent national identity, educated middle classes, and experienced bureaucrats capable of delivering public goods. Nevertheless, in

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his 2006 memoir, Paul Bremer—head of Iraq’s Coalition Provisional Authority—made five references apiece to post-war Japan and Germany but not one to Cambodia.

This happens because even the smartest and most experienced men and women are subject to cognitive blind spots. Most people are familiar with confirmation bias, which makes us prone to highlight evidence that supports our preferred conclusion while

... the Marine Corps strives to overcome the inertia of human bias ...

ignoring what contradicts it. Unfortunately, this bias is much easier to spot in someone else than in ourselves. Because we are so ill-equipped to understand random events, our narrative bias compels us to postulate causes and impose patterns where none exist. Norman Mailer captured this in *The Naked and the Dead* when a commander found glory in having the good fortune to attack an enemy on the verge of collapse. Most pernicious of all might be what Nassim Taleb calls “silent evidence.” We see the wars that diplomacy fails to stop but not the ones they prevent.

Perhaps more than any other organization, the Marine Corps strives to overcome the inertia of human bias and conventional wisdom. Think of Gen Mattis’ aphorism that “the most important six inches on the battlefield is between your ears,” Gen Neller’s call for “disruptive thinkers,” or Gen Berger’s recent comment, “We are better than anybody else, primarily because we don’t all think exactly alike.”¹ To that end, Marines have a newly revised professional reading list issued in 2020.

In many ways, that list of 53 books could scarcely be improved. The authors’ credentials are impeccable: George P. Shultz on diplomacy, Jim Collins on organization, Daniel Kahneman on thinking, and a bevy of other Ivy League graduates besides.² And that is before we even consider writing by flag officers such as Jim Mattis and James Stavridis. Beyond military history, subjects include business, psychology, management, and technology. But this apparent diversity belies meaningful commonalities. All were originally written in English, 47 by U.S. citizens and 18 by Marines.

Why could this be problematic? Because psychologists have known for generations that people rarely change their minds in response to new evidence.³ Moreover, past a certain threshold, exposing experts to more information makes them more confident without increasing their accuracy.⁴ I witnessed this firsthand in Ramadi in 2008. The commander of my military transition team attached to the Iraqi Army invariably reported progress up to his chain of command, but I never forgot a corporal rolling his eyes when we surveyed the new Iraqi base: “Sir, we’ll be bombing



The Marine Corps' approach to professional reading does not support diversity of thought or "disruptive thinking." (Photo by MCA.)

this building in ten years." It is clear who possessed a better sense of Iraq's trajectory. After years immersed in social science research, today I believe my commander was wrong not despite his experience but because of it.

Absent a draft, people self-select into the military. That goes double for those who make it a career. In general, those who spend decades in the Marines do so because the mission gives them a sense of purpose and because they love being around Marines. They tend to see the Corps as a force for good, capable of doing almost anything given appropriate support from the government and the American people. That mindset may be essential for sustaining a force that can fight and win wars, but it also makes us especially vulnerable to the biases listed above.

How can you "turn the map around" if you have never seen the world through our enemies' eyes? If you spend decades hearing that we always win, how could you recognize a losing war? These are not hypothetical questions. Bureaucratic evasions delayed a comprehensive study of the Iraq war even as ISIS ran amok.⁵

Having one's core beliefs challenged is uncomfortable. But if we fail to do it, then much of our professional education will have been wasted. We may laugh at Marxist professors unable to

acknowledge history after 1989. But how different are they from the officers who spent twenty years extolling progress in Afghanistan? The price we pay for being wrong is far higher than the ridicule of undergraduates. If we want leaders to better appreciate the context and consequences of their decisions, we should make three changes to our professional reading list.

First, we need to study a wider range of wars, especially those not involving the United States. I have no idea which conflict will be the best precedent for America's next major war, but I suspect that a commander is more likely to apply the right lessons if his staff officers have all read broadly about dozens of wars and not deeply about the same handful. Gen Nhem's *The Chronicle of a People's War* would be a great place to start.

Second, we need to read more works by authors from outside of our worldview. Most books about America's wars written by service members, journalists, or historians rely on interviews and documents from domestic sources. For example, Patrick K. O'Donnell provided a superb account of the Battle of Fal-lujah in *We Were One*. But Nir Rosen, a journalist who speaks Iraqi-accented Arabic, offered a very different take on that fight in *The Triumph of the Martyrs*. Both books offer lessons for Marines.

Third, we need to acknowledge the trade-off inherent in any professional reading list: by requiring everyone to read certain books, we increase the risk of groupthink. One possible solution would be for the Commandant to delegate the assembly to the list to subordinate commanders. In that scenario, Marines would encounter a much wider range of ideas as they move through their careers while still achieving the intent found in *ALMARS 023/20*: "To ensure the Commandant's Professional Reading Program (CPRP) remains relevant, current, and promotes professional discussions amongst all Marines."

"Victory does not necessarily go to those who have the largest or most modern forces, but to those who are able to recognize the need to adapt, generate intelligent decisions, and execute them more quickly than their enemy." Those words, from *MCDP 7, Learning*, could well serve as an epitaph on the war in Afghanistan. To prevent similar fiascos in the future, we must start with the "six inches between our ears."

Notes

1. Emma Bowman and Rachel Martin, "The Marine Corps Is Reinventing Itself to Reflect America, Says Top General," *NPR*, (November 2021), available at <https://www.npr.org>.
2. Although Eric Greitens' continued presence on the list is inexplicable in light of the circumstances that led to his resignation as Governor of Missouri.
3. Peter C. Wason, "On the Failure to Eliminate Hypotheses in a Conceptual Task," *Quarterly Journal of Experimental Psychology*, (Routledge: Taylor and Francis, April 1960).
4. Stuart Oskamp, "Overconfidence in Case-Study Judgments," *Journal of Consulting Psychology*, (Washington, DC: American Psychological Association, 1965).
5. Michael R. Gordon, "The Army Stymied Its Own Study of the Iraq War," *The Wall Street Journal*, (October 2018), available at <https://www.wsj.com>.



“Run More, Read Less”

Professional military education is on you

by Mr. Brendan B. McBreen

The Marine Corps can only teach you 25 percent of what you need to know. *You* need to drive the majority of your professional military education (PME). Years ago, Marine cynics would say, “Run more, read less!” But today’s battlefield—and today’s Marine Corps—demands professional, well-educated leaders.

The Marine Corps order on PME, *MCO 1553.4B* (2008), tasks each of us to “assume responsibility for your own professional development.” Of the four types of PME, two are provided by the institution and two are provided by individual Marines.

Resident Instruction is school. Formal schools are excellent resources that standardize the education of Marine leaders at each grade. Non-Resident Instruction is also school. Using similar curricula, our remote learning programs educate Marines who do not attend resident school and provide other online courses. Unit PME is military education conducted inside units, and professional self-study is the work done by individual Marines to educate themselves.

Unit PME

Unit PME—events run *by* the unit *for* the unit—builds strong and cohesive teams. In some ways, this is more important than school. Commanders, who are responsible for mentoring their Marines, should conduct most unit PME events. Leaders teaching leaders directly increases the combat capabilities of our deployable units.

Unit PME should be a regular event, ideally weekly, at a regular location away from the office: “PME is Friday at 1430 in Building 7.” An aggressive quarterly

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training plan might schedule six to eight PME events in a twelve-week quarter.

Officers and staff noncommissioned officers can hold combined or separate PME events. The unit leaders selected to facilitate, and their dates and subjects, are best coordinated at the beginning of the quarter so that facilitators have time to prepare. Conducting PME on ship or while deployed is challenging but rewarding—your captive audience can focus on your specific conflict and specific geography.

Unit PME should not be diluted by social events or administrative briefings. The focus should be on tactical education—that essential knowledge required by Marines. Commanders who are too

busy for regular unit PME are not fully developing their leaders.

Professional Self-Study

The main effort for you—and every Marine leader—must be professional self-study. Everyone needs his own individual PME plan with a set of specific goals for each year.

Ever since I was a lieutenant, I have kept an annual set of fitness, financial, and professional goals. These lists evolved each year as I grew professionally. Clearly-stated written goals help you to prioritize your time and ignore Netflix and the NFL.

When I talk to young officers today, I ask them, “What are your goals? What

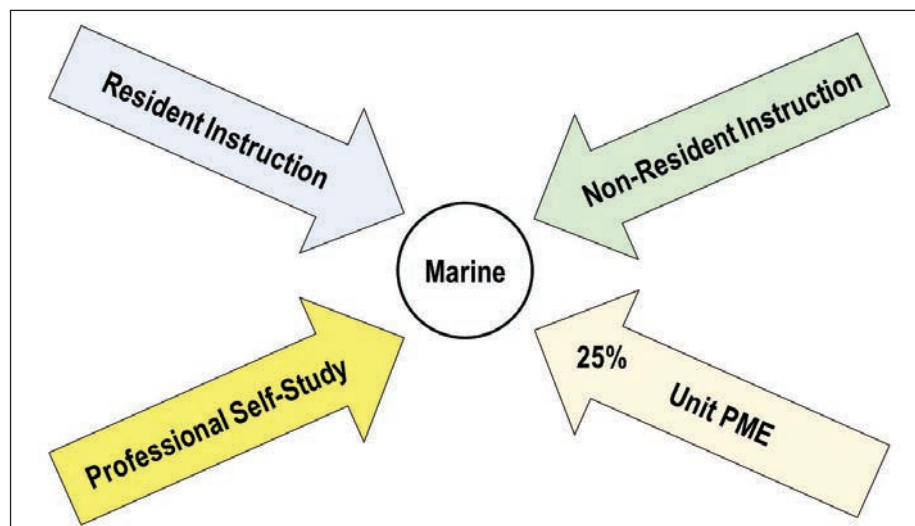


Figure 1. Two of the four types of PME are the responsibility of the individual Marine. (Figure provided by author.)



Reading is the cornerstone of professional self-study. (Photo provided by author.)

is your PME plan?” This is mine:

- Read one book every month.
- Read one article every month.
- Fight one adversary every month.

Books

If you read ten books a year, you will consume 100 texts by the time you make major. Keep one book in your office, one in your briefcase, one by the bed, and one on the toilet. Listen to one in the car. Know the 100 standard authors, works, and ideas that you are expected to understand—the *canon* of the profession.

The Commandant’s Professional Reading Program, *ALMAR 023/20*, is a great place to start, but you should seek other recommendations from your peers, instructors, and other authors. Do not ignore fiction. Life’s truths are often best understood through stories.

Articles

Regularly read one or two online military sites. Subscribe to the *Marine Corps Gazette* and another journal. Recent and relevant ideas and issues as

well as new challenges and concepts are all introduced and debated in military journals.

Fights

The Marine Corps fights. Regardless

of your MOS, you need to fight to appreciate the challenges of conflict and develop the skills of a combat leader. Every month, you should make an assessment, make a decision, and issue an order.

For ten years, I submitted a monthly tactical decision game (TDG) order to the *Gazette*. We fought TDGs with our noncommissioned officers in the platoon and company. I fought wargames with my peers on ship, at EWS, and on Okinawa. In the battalion, in addition to field training, our unit PME included map exercises and tactical planning problems. Then, deployed to crises and combat, my peers and I issued real-world orders face-to-face to our Marines with life or death consequences. I probably made 300 tactical decisions by the time I was a major. This was my fanatical pursuit of tactical excellence.

Fighting makes you comfortable with ambiguity, imperfect intelligence, and changing situations, and forces you to develop good habits for estimates, decision making, and orders. Fighting should be, but is not, a common activity in the Marine Corps. You must forge ahead by yourself because decision-making opportunities during field training are so rare. Fight yourself, fight the computer, and fight your peers in wargames, computer simulations, map exercises,



“Fights” in the form of multiple TDGs provide essential cognitive “reps and sets” to develop and practice decision making as a combat skill. (Photo provided by author.)

tactical problems, and TDGs. Learn to facilitate decision-making exercises for your Marines. Learn to create your own map problems. It is not that hard.

As you gain professional experience, you can expand your annual PME goals:

- Write one article every year.
- Study one battle every year.

An Article

Writing makes a Marine precise. We are all obligated to improve the organization, so we need to hear your ideas. Writing an article forces you to think clearly about a subject and then communicate your recommendations. You are not writing a novel. News reporters write paragraphs every day—useful information explained clearly to others. Every Marine leader is a communicator, and everyone should be a writer.

A Battle Study

Professional Marines should understand how their ancestors fought. Why? Because the human side of battle never changes, because the fog of war teaches us to expect uncertainty, and

because some battlefield lessons are the shorthand of our profession: *“Just like Buford’s decision on the first day.”*

Pick a battle that interests you. Focus on one small section—a *key* leader of a *key* unit making a *key* decision at a *key* hour. Narrow specificity is the key to understanding a complex event.

We now need to squeeze twenty years of wisdom into ten years of service.

Read the standard account, and then read two more texts to get a more rounded view. Draw a map, list the units, and write the order. Assemble your own list of insights and lessons learned. You are not regurgitating history; rather, you are analyzing specific decisions. Prepare your research as if you are going to present it to your Marines at PME. Field-grade officers should know multiple battles.

When you want to dig deeper, link your battle to the institutional decisions that built that army. There are some great books on British, German, French, and U.S. Army policies and how those policies affected battlefield competence.

Why PME?

The Marine Corps needs old heads on young shoulders. We emphasize PME because: our leaders face new and growing challenges, our smaller combined-arms teams require skilled decision makers at lower echelons and at greater distances, technology and communications are revolutionizing conflict, the operational range of precision weapons and the worldwide range of information operations now make all of our units more vulnerable, and because future joint, urban, counterinsurgency, and expeditionary advance base operations require educated, capable, and flexible leaders.

Our leaders must be *educable*: “able to be educated.” Like all executives, we must be able to evolve, learn, and change over the course of our careers. The ability to expand our knowledge and the willingness to change our opinion are the hallmarks of true leaders.

“Run more, read less” *cannot* be our philosophy, prioritizing pull-ups—easily-measured fitness scores—over professionalism. A recent report on company commanders gushed at their scores as if running was the most important skill for a commander.

We now need to squeeze twenty years of wisdom into ten years of service. PME builds this professional knowledge so our leaders can fight smarter. The future battlefield demands leaders with solid insights on the environment, the adversary, and tactical solutions. The American people expect high levels of competence from our small-unit commanders—leadership, experience, war-fighting skills, and most importantly, education.

PME is critical. Professional self-study is your main effort. The Marine Corps cannot adequately prepare us all, so *you* must drive your own professional development.

Op COBRA: 1944	CCA, 3rd AD
Naktong Bulge: 1950	2 / 5
Goose Green: 1982	2 Para
<ol style="list-style-type: none"> 1. Battle Summary 2. Map 3. Task Organizations – Annex A 4. HHQ OpOrder 5. Key leader, key unit, key decision, key hour 6. Lessons learned 7. Bibliography 	

Battle studies. (Photo provided by author.)



A Different Approach for Similar Results

Changing the transformation

by MajGen Bill Mullen (Ret)

I spent the last 34 years of my life in the organization that I started to love as a teenager in the late 1970s. That organization paid my way through college and then enabled me to have the best (and worst) experiences of my life. Most of those experiences centered around the most precious assets in the organization—the individual Marines. Some only stayed for short durations either because they failed to live up to all that is expected of being a Marine or because they were either killed or seriously injured. Many of the latter category more than lived up to all that is expected of a Marine. Others served their one enlistment and returned to civilian life, hopefully, better for the experience of having served. Others, like myself, spent decades in the organization and thoroughly imbibed the culture and ethos of that organization. I can truly say that I love Marines and the Marine Corps and want to do everything in my power to help despite having taken the uniform off last fall. It is for these reasons that I am writing what I can anticipate will be a controversial article.

In this article, I want to propose a change to how we bring in civilians and transform them into Marines. For many, especially those who have served as drill instructors, touching on this subject is like touching the third and highly electrified rail of a subway line. I know that this article will provoke a great deal of outrage but have long felt that it needs to be written because of the challenges we have experienced in the past and will continue to experience until we decide to do something different. In essence, the current way we transform civilians into Marines gener-

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ates risk for the institution and can be detrimental both to those who undergo the process as well as those who implement the process. The negative effects of this suboptimal process then echo on into the operating forces in the form of unlawful hazing as well as negative and sometimes abusive leadership. I know these things are realities because I have been observing or dealing with them for many years.

All of the above is not to say that we have not produced hundreds of thousands of great Marines over the past decades using this system. It is also not meant to disparage the performance of the majority of those who have served as drill instructors who did their job exceptionally well and to the best of their ability. Many of them are some of the finest Marines I have ever served with. That said, I argue that if you take the time to think about this issue objectively, and with an eye toward what is best for the Marine Corps in the years ahead, I think you will find what I say in the remainder of this article to be compelling.

The last two years of my time in the Marine Corps were spent as the Commanding General of Training and Education Command. In that capacity, both Recruit Depots, as well as Officer Candidate School (OCS), were subordinate to that command. I spent a decent amount of time at both depots as well as OCS and talked to the leaders

in each location. Everything I saw and heard reinforced my belief that the way we transform civilians into Marines is problematic. It is this way because we place too much power in the hands of drill instructors who seek to live up to the legacy and reputation of the rock-hard taskmaster whom all the recruits or candidates live in fear of. The results have been a mixed bag of good and bad, with the bad effects placing our institution at serious risk several times in our history.

In the attempt to eliminate the more negative aspects, we have developed thick standard operating procedures over the years and significantly increased the number of officers and senior staff non-commissioned officers providing supervision, but none of these things have been able to completely stop recruit abuse events. We have even had cases of junior drill instructor abuse. The actual incidents, that we know about, are relatively rare, but each one has enormous ripple effects that place the institution we love at serious risk. As stated earlier, the majority of drill instructors do exactly what we need them to do, but it only takes one or two events such as a Ribbon Creek or what happened with Recruit Siddiqui to undermine the efforts of all involved in the entire process. The amount of power placed in the hands of a drill instructor team is immense and scientific studies such as the Stanford Prison Experiment of 1971 prove that it takes some very special people to be able to resist turning that amount of power to negative ends.¹ We put a great deal of effort into screening and training our drill instructors to be able to resist this phenomenon but continue to place