



**U. S. Marine Corps**  
**Officer Professional Military Education**  
**2006 Study and Findings**

**General Charles E. Wilhelm, USMC (Ret), Chairman**  
**Lieutenant General Wallace C. Gregson, Jr., USMC (Ret)**  
**Lieutenant General Bruce B. Knutson, Jr., USMC (Ret)**  
**Lieutenant General Paul K. Van Riper, USMC (Ret)**  
**Dr. Andrew F. Krepinevich, Jr.**  
**Dr. Williamson Murray**

**Marine Corps University**  
**2076 South Street, Quantico, Virginia 22134-5067**



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To: Commanding General, Marine Corps Combat Development Command  
Via: Chair, Board of Visitors, Marine Corps University

Subj: FINDINGS OF THE OFFICER PROFESSIONAL MILITARY EDUCATION STUDY

Within the lifecycle of this study, the nation paused to remember the tragic events of 11 September 2001. This served as a cogent reminder to the members of the study group that the world of this young century is markedly different from the world of the last. Change is the order of the day, and the Professional Military Education Institutions of the Marine Corps must keep pace.

The study group...four retired Marines, three of whom are former MCCDC Commanders...and two distinguished military scholars and authors, worked on this project from July through September. During those three months of deliberation the members shared thoughts, experiences and philosophies. As a result of these exchanges the group reached some fundamental conclusions. We readily agreed that during times of great change, learning and professional development are essential. We also agreed that a truly world class Professional Military Education program must have a number of attributes. Foremost among these are a world class faculty, world class students, world class curricula, and world class facilities. In the our judgment, the Marine Corps is well down the road on the first three, but is lagging badly on the fourth.

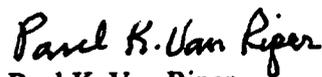
This study contains many recommendations. Some can be executed quickly with minimum resources. Others will cause the Marine Corps to do some soul searching, make hard choices, and ask itself what is really important...on the strategic time line spanning today, tomorrow, and the day after tomorrow.

As we pursued this task, we profited enormously from the day-to-day involvement of Major General Don Gardner, President of the Marine Corps University. We never wanted for access to the University faculty, staff and school directors thanks to the diligence of Dr. Jerre Wilson, and last, but certainly not least, we owe a large debt of gratitude to Major Philip Cushman who not only provided responsive administrative support, but also served as our "Napoleon's Corporal."

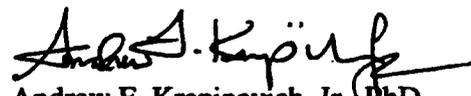
  
Charles E. Wilhelm  
Gen USMC (Ret)  
Chairman

  
Wallace C. Gregson, Jr.  
LtGen USMC (Ret)

  
Bruce B. Knutson, Jr.  
LtGen USMC (Ret)

  
Paul K. Van Riper  
LtGen USMC (Ret)

  
Williamson Murray, PhD

  
Andrew F. Krepinevich, Jr., PhD



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# **Executive Summary**

The study group finds the Marine Corps' Officer Professional Military Education (PME) system to be generally sound. However, left unchanged, this system will be increasingly unable to meet the needs of our officers, the Marine Corps and the nation.

## ***The Changing Environment***

The United States and its Marine Corps confront an environment of accelerating political, economic, technological, social and military change. The world is becoming progressively more dangerous, and our nation's security is increasingly at risk. In addition to the ongoing war with radical Islamists, nuclear proliferation is proceeding apace. North Korea has declared its possession of nuclear weapons, while Iran is hastening its efforts to develop such a capability. Finally, China's continued rise has yet to be matched by an increase in confidence that Beijing will seek to resolve its outstanding strategic objectives through peaceful means. These security challenges will dominate U.S. defense planning for years, and perhaps decades. Consequently, Marine officers will find themselves deploying to many different parts of the world, confronting different challenges, and operating among vastly different cultures.

Marine officers also face a technological revolution characterized by rapid advances in information-related technologies. Moreover, it seems likely that, with breathtaking advances projected in the areas of the biosciences and nanotechnologies, the pace of change will only quicken. The ongoing geopolitical and military-technical revolutions are fundamentally altering not only the conduct of military operations, but the political and social context within which they take place.

These changing times demand major adjustments to—and investments in—Professional Military Education. The Professional Military Education system has never failed the Marine Corps, or the nation. It cannot fail them now. Professional Military Education represents the most important investment the Marine Corps can make in addressing the challenges of this young century.

## ***The Marine Corps Officer***

The dangerous and uncertain world in which we live demands innovative thinking from the Marine Corps in general, and from the Marine Corps University in particular, to support the efforts of officers to acquire the necessary skills to succeed. This is best accomplished in an atmosphere that welcomes independent thinking and encourages spirited professional debate.

Marine officers will need a greater variety of skills and a wider breadth of knowledge to meet the challenges they confront, both in peace and in war. Today's officers must:

- Think critically, whether confronting concrete or abstract problems;
- Express themselves, both orally and in the written form, clearly and effectively in a diverse set of circumstances and before a wide range of audiences;

- Understand national security strategy and policy as well as the responsibilities of other agencies of the federal government;
- Be proficient in their military specialty, Marine Air Ground Task Force (MAGTF) operations and how they fit into joint, international, and interagency operations;
- Appreciate the roles that international organizations, non-governmental agencies, and the private sector play in military operations, especially in the emerging security environment;
- Coordinate, where needed, the employment of military capabilities with the other elements of national power;
- Understand and appreciate the value of their profession's history;
- Master counterinsurgency operations, and operations in nuclear and biological environments; and
- Understand the principles of communications and network theory, system architectures, and the effective use of information management tools that enable such mastery.

### ***The Central Role of Professional Military Education***

The burden of fostering these competencies rests principally on our Professional Military Educational institutions. But it also requires a major and enduring effort on the part of Marine officers themselves, and emphasis and encouragement from Marine commanders at all levels.

When General Gray founded Marine Corps University, he sought to create “a world-class” educational institution for the study of war and the profession of arms. This study group believes that four essential elements comprise world-class status: a world-class faculty, world-class students, a world-class curriculum, and world-class facilities and resources. But MCU is by no means a world-class university. To realize General Gray’s vision, the Marine Corps must support and sustain these four core elements with the resources that a world-class institution requires. We find that the scope and scale of needed change exceeds the resources allocated for this purpose. Nor can the Marine Corps take refuge in the old adage that it will “do more with less.” Simply stated, substantial additional human and material resources are needed to meet this challenge.

### ***The Way Ahead***

The study group believes the Marine Corps cannot field a world-class fighting force without a world-class educational institution. In the course of its deliberations, the study group formulated a total of 63 recommendations. Among the most important are:

## **General**

- Request the Commandant of the Marine Corps issue a policy statement on Professional Military Education. This statement must elevate the importance of PME within the institution and place it on an equal or higher plane with other priorities such as physical conditioning. Further, the Commandant's guidance should clearly define the roles and responsibilities of the individual officer, commanding officers, and the Marine Corps as an institution in the overall PME equation.
- Craft an MCU Campaign Plan that integrates initiatives across PME's four essential elements. The plan must reflect an appreciation that the four elements' contribution is not the sum of their efforts, but rather the product of their efforts. Thus a lagging effort in one area will undermine the effectiveness of the other three.
- Establish unity of command over officer PME under the Marine Corps University. The University must be responsible for establishing requirements for the College of Continuing Education, the Basic School and pre-commissioning education.
- Radically change the Expeditionary Warfare School's (EWS) framework and construct. All captains should receive the majority of EWS instruction via non-resident distance learning, followed by attendance at an in-residence program at Quantico.

## **Faculty**

- Increase faculty size for both resident and non-resident PME while sustaining quality in order to meet current and emerging requirements. This will improve instruction while facilitating the expansion of the various curricula to support the development of new skills.

## **Students**

- Ensure officers understand that they are responsible for their professional development, and that they actively seek opportunities to meet this responsibility, to include pursuing self-study programs.
- Increase enrollments in the School of Advanced Warfighting and the Marine Corps War College. The Marine Corps University is equipping officers with superior skills in strategic planning and decision-making, and in operational art and science. However, it is not producing sufficient numbers of graduates to satisfy the demands of Marine Corps and Combatant Commanders for officers possessing these skills. To align supply with demand and meet requirements created by global contingencies and proliferation of joint task forces, enrollments in both schools must be increased.

## **Curriculum**

- Rebalance the curricula of the respective schools to place appropriate and proportionate emphasis between the art and science of warfare. While the study of military history and historical analyses underpin the curricula of all Professional Military Education, current programs place a premium on art at the expense of science.
- Encourage the study of languages by young men and women who demonstrate an interest in becoming Marines, while providing opportunities for language instruction by those who demonstrate a peculiar aptitude for such study. Expand universal cultural education.

## **Infrastructure**

- Develop and implement a new facilities master plan to remedy the University's antiquated physical plant and information technology (IT) infrastructure.
- Overhaul the University's information technology infrastructure to support best communications practices.

The emerging security environment will challenge Marine officers' ability to maintain their traditional core skills, and to develop new ones as well. Professional Military Education has been, and will remain, central to meeting this challenge. While professional learning is a life-long responsibility of all Marine officers, they, along with their commanders and the Marine Corps as an institution, share a collective responsibility for its success. But success also requires major changes in the Marine Corps' military education system, and a substantial increase in resources. This challenge is one that cannot be deferred, and must be met, if the Marine Corps is to maintain its heritage of service to the nation.

## **Introduction**

**Objective:** This study was conducted at the direction and under the supervision of the President of the Marine Corps University (MCU). The members of the study group have undertaken a comprehensive independent review of the Marine Corps' Officer Professional Military Education program, its processes, and procedures. The study's findings will help in the revision of Marine Corps Orders related to Professional Military Education (PME) and the curricula of the various PME educational institutions. The framework and parameters of the study rest on seven key assumptions and ten questions posed in the study directive.

### **Assumptions**

1. The study will be completed within three months.
2. Distributed education will remain an important component of the Marine Corps Officer PME program.
3. Recommended changes must consider the impact on distance learning (DL) programs.
4. USMC PME must continue meeting joint requirements and receive joint accreditation via the Process for Accreditation of Joint Education (PAJE).
5. MCU will continue to maintain its accreditation with the Southern Association of Colleges and Schools (SACS).
6. USMC PME must maintain participation by other services, civilian agencies, and international fellows.
7. Officers must be able to complete individual PME courses within a reasonable period of time.

### **Questions**

1. Does the basic structure and content of USMC officer PME require change? If so, why?
2. How can the USMC develop leaders who can recognize and adapt to the changing character and form of conflict, and operate confidently and effectively within it, at the tactical, operational, and strategic levels of war?
3. How can the USMC develop leaders who think critically and creatively, plan, assess risks - then act decisively?
4. What is the optimum combination of resident and non-resident officer PME?
5. What is the best way to share USMC officer PME responsibilities among the institution, commands, and individuals?

6. What is the appropriate methodology to ensure Marine Reserve Officers receive PME?
7. What major faculty, student, curricula and facility changes should be considered?
8. Are the length and difficulty level of current PME courses appropriate for the subject matter and majority of student population?
9. To what extent should the following be included in the curricula?
  - Military history
  - Policy and strategy
  - Traditional vs. irregular warfare
  - Language and culture
10. What is the value of the Occupational Field Enhancement Course (OFEC) and Command and Control Training and Education (C2 T&E) curriculum currently provided by the resident Expeditionary Warfare School (EWS)? Should these programs be available to non-resident students and other Marines along the T&E continuum?

## ***Approach***

After reviewing the study directive and following discussions with the MCU President and key members of the university staff and faculty, the study group determined that the purpose and intent for this project could best be met by addressing study requirements in two ways. The members concluded that the first three questions have a conceptual orientation and focus on long-term factors and conditions. Section I of the study, entitled “Concept,” addresses these issues. To provide a framework for the report, this section begins with a succinct description of the evolving strategic environment, and the attributes an officer will need to operate successfully in the postulated environment. The section continues with a general discussion of the implications of the evolving environment on PME programs and training needs, and concludes with responses to the first three questions of the study directive.

Section II, titled “Assessment,” answers the remaining seven study directive questions. This segment has a more immediate focus, concentrates on specific elements of the existing officer PME program, and addresses factors, conditions, and requirements that the President, MCU, and the Marine Corps as an institution should address within the next two to three years to preserve the program’s quality and ensure its continued relevance.

The third and final section of the report, “Conclusions,” summarizes the study group’s overall assessment of the Marine Corps PME program and the steps that can be taken to elevate the program to the next level to make it relevant and responsive to the challenges of the 21<sup>st</sup> century. During its deliberations the study group examined situations and conditions that affect officer PME, but which are beyond the scope of the questions posed by the study directive. Because these situations and conditions are not trivial, additional recommendations are incorporated in this section of the study.

## Section I-Concept

### *Strategic Environment*

**Background:** The United States and its military confront a period of great uncertainty and ambiguity. The emerging threats range from potential peer competitors to radical nonstate entities. None of these threats are open to easy solutions. Countering them will require more than combat capabilities; it will require mental agility as well. Sir Michael Howard has described the military profession as not only the most demanding physically, but also the most demanding intellectually. This is true now, more than ever before.

The world has changed dramatically since the attacks of 9/11. As they did after the surprise attack on Pearl Harbor, Americans now see the world as a very different place, with profound implications for U.S. security. The 9/11 attacks made clear what most Americans had failed to appreciate: the country is at war; indeed, by the declarations of al Qaeda, it has been at war at least since 1998, and no matter what happens to Osama bin Laden and his organization, this war will likely continue for decades.

Following 9/11, the United States undertook major military operations to unseat the Taliban in Afghanistan and the Ba'athists in Iraq. Washington now seeks to stabilize those states sufficiently to enable the development of some form of democracy. Correspondingly, U.S. defense budgets have increased substantially. Yet, it is by no means certain that such increases will continue into the future.

In addition to the war with radical Islamists, we find the "nuclearization" of Asia has proceeded apace. Both India and Pakistan have tested nuclear weapons and built nuclear arsenals. North Korea has declared its possession of nuclear weapons, while Iran has accelerated its efforts to develop such a capability. Finally, China's continued rise has yet to be matched by an increase in confidence that Beijing will seek to resolve its outstanding strategic objectives through peaceful means. These enduring security challenges are likely to dominate U.S. defense planning for years, and perhaps decades.

Historians have noted that as the ways of creating wealth change, so do the ways of war. The agricultural revolution and the industrial revolution both brought about enormous changes in how humans waged war. The current "knowledge-based revolution" is having a similar impact. The processes of globalization that drive the current methods of wealth creation through the empowerment of individuals and entrepreneurial business will drive new ways of war just as surely.

**Radical Islamists:** Radical Islamists present the first and most obvious long-term challenge. They constitute a transnational, theologically based insurgency that seeks to overthrow regimes in the Islamic world friendly to the United States, and to evict American presence from parts of the world vital to America's interests. Moreover, they aim at no less than to negate the past 900 years of history that has seen the rise of the West to a position of unparalleled power and influence.

This insurgency has exploited elements of globalization, to include financial networks, the internet, and porous borders, to form a networked organization whose reach is global. It differs from most insurgencies in that its leaders seek to employ advanced technology—in the form of telecommunications and weapons of mass destruction—to cause maximum destruction. The radical Islamists' global network, their lack of respect for the lives of innocents, combined with their apparent willingness to employ weapons of mass destruction and disruption, should they acquire them, makes this insurgency especially threatening.

No one should be under the illusion that this war will be won quickly, or that the price of victory will be cheap. Insurgencies tend to be protracted affairs and, particularly in the case of religious-centered wars, bloody. As with most insurgencies, victory rests less in military action than in the successful treatment of political, economic and social ills, and in winning the “war of ideas” against those advancing a perverse and dangerous distortion of the Islamic faith. Success will take years, perhaps decades. In the interim, the military's job will be to support efforts to stabilize countries threatened by radical Islamists attempting to subvert them.

The problems in the Islamic World stem from the past nine centuries of history, which witnessed the “rise of the West” and solidification of Western values in governance and human relations. In effect, the Islamic World confronts the need to adapt to a world of global interdependence created by the West. Often led by despotic leaders, denied political participation, shackled to commodity-based economies that offer little prospect of supporting the development of a broad middle class, and bombarded by Western media, many Islamic states have fallen further and further behind not only the West, but South Asian and East Asian countries as well. Their rage feeds on the lies of their corrupt leaders, the rhetoric of their radical imams, the falsifications of their own media, and the images of the prosperous developed world. If the tensions between the Islamic World's past and the present were not enough, the Middle East, the heartland of Islam, is riven with tribal, religious, and political divisions, creating an explosive mixture that makes continued instability and conflict all but inevitable.

**The Nuclear Arc of Instability:** A second major enduring challenge to U.S. security is the spread of nuclear weapons to unstable and/or hostile states in Asia. Since 1998, India and Pakistan have tested nuclear weapons and created nuclear arsenals. North Korea apparently has nuclear weapons, while producing the fissile material necessary to fabricate more such devices. Iran, no doubt aware of the very different treatment accorded North Korea by the United States as compared to Saddam's non-nuclear Iraq, is pressing forward vigorously with its nuclear weapons program. It is conceivable that before the decade ends, a solid front of nuclear armed states will stretch from the Persian Gulf to the Sea of Japan, running through Iran, Pakistan, India, China and North Korea, while Russia looms to the north—a five-thousand mile “nuclear arc of instability,” in a part of the world that has become increasingly important to U.S. security and economic well-being.

These states may not view nuclear weapons in the same way that America's political leadership has viewed them over the years, i.e., as weapons of last resort. In particular, it is far from certain that Iran, North Korea, or Pakistan, whose cultures are quite distinct from that of the United States, and whose regimes are either unstable or unremittingly hostile (or both), view the role of nuclear weapons in such a fashion.

The acquisition of nuclear weapons by hostile rogue regimes threatens to disrupt the military balance. All things being equal, the willingness of the United States to project power against nuclear-armed adversaries would likely be considerably more constrained than against those who do not possess them. Washington may be compelled to alter its strategic aims when confronted by rogue states armed with nuclear weapons, e.g., abandoning the objective of regime changes. This seems to be a principal motive for North Korea to expand its nuclear arsenal and Iran to acquire a similar arsenal of its own. If they succeed, it will reduce U.S. freedom of action in two regions of vital interest substantially and perhaps precipitously. It may also make it far more difficult to deal effectively with ambiguous forms of aggression, such as Iran's support for the insurgency in Iraq, or potential North Korean trafficking in fissile materials.

The proliferation of nuclear-armed states increases the likelihood that these weapons will be used. It is not clear that the regimes possessing such weapons will take the kinds of precautions to secure them against unauthorized use that the mature nuclear powers have put in place. Owing to the relative instability of states like Iran and North Korea, these weapons could potentially fall into the hands of nonstate entities, either as a consequence of corruption, e.g., the unauthorized sale of a nuclear weapon to a nonstate actor, or state failure, e.g., possession by a faction in a civil war. Nor can one discount the possibility that North Korea, which proliferates ballistic missile technology, could consciously provide, for a price, nuclear weapons or fissile material to other states, or even nonstate groups.

One can make the case that the United States is now in an era best characterized as a "Second Nuclear Regime," with the First Regime, which began in 1945 with the attacks on Hiroshima and Nagasaki, having passed into history. Two principal elements defined that earlier regime: first, a few great powers possessed nuclear weapons, with all but China having a common European heritage. Second, during that period, which lasted until the early 90s, there developed a tradition of the non-use of such weapons. Now, the former no longer holds, while the latter remains open to debate.

One might also expand the above definition to include state and nonstate actors possessing biological weapons. By all accounts, such weapons are becoming progressively easier to fabricate — certainly easier than nuclear weapons—and, under the right conditions, they could produce mass casualties, economic disruption, and terror on the scale of a nuclear strike. Yet, there are virtually no restrictions on the knowledge associated with developing biological weapons, while the infrastructure costs for producing them are modest compared to those associated with nuclear weapons. For nonstate entities, this combination of comparatively low cost and high destructive potential may make the pursuit of biological weapons irresistible.

**China:** The third enduring challenge to the United States involves major countries which find themselves at "strategic crossroads." While this group includes India and Russia, China is the country with the greatest potential to challenge U.S. security interests.

China does not represent the type of threat posed by the Soviet Union during the Cold War. Unlike the Soviets, the Chinese do not possess an aggressive, expansionist ideology. However, this does not guarantee that China will not pose serious challenges to the United States. Rather, if it does, such challenges are likely to take different forms and employ different means. Moreover, China presents problems for the U.S. military quite different from those posed by

adversaries in other post-Cold War conflicts. To begin with, the scale of military effort the Chinese can generate far exceeds that of any rogue state. China's anti-access and area-denial capabilities are far more mature than any other potential rival of the United States, while its enormous size provides it with great strategic depth, a problem U.S. defense planners have not had to address since the Cold War.

China may emerge as a major threat to U.S. security in the manner that Germany was to Britain a century ago. Like Germany in the late 19th and early 20th centuries, China is a rapidly rising power. It is dealing with challenges of political legitimacy, growing ecological problems; an economy that has enjoyed remarkable growth, but which soon may wane; potentially serious demographic problems, societal instabilities; a rapidly growing dependence on foreign energy supplies; and outstanding territorial issues over Taiwan, the Spratley Islands, Tibet, and perhaps portions of the Russian Far East.

There is evidence that China seeks to displace the United States as the principal military power in East Asia, and to establish itself as the region's dominant power. If this were to occur naturally, stemming from the evolution of Chinese economic power with a corresponding increase in influence, the United States would probably accept the outcome. However, if China attempted to achieve preeminence through coercion or aggression, such an approach would serve neither U.S. interests in the region, nor the stability of the international system and rule of law.

The challenge, then, for the United States is to encourage China to cooperate in the areas of common security interests and to convince Beijing that the two nations should achieve the resolution of their outstanding geopolitical issues within accepted international legal norms. This would mean creating and maintaining a military balance in East Asia favorable to the United States and its allies against the kinds of contingencies that might tempt Chinese aggression.

**Implications for the Marine Corps:** It appears likely that most of the wars and military interventions of the early 21st century will find the Marine Corps operating in many different parts of the world, among vastly different cultures and against a spectrum of threats. In some instances, knowledge of local cultures and understanding of the cultural and religious motivations that animate the enemy will be essential in determining the success or failure of American efforts, especially in the era of omnipresent media and round-the-clock programming. American military leaders—from lieutenant to general—will have to appreciate not only their own cultural framework, but those of others as well. They will have to be familiar and at ease with people who have very different attitudes and different perspectives.

This is not to say that the extraordinary tactical and operational competencies that the Marine Corps has developed over the past thirty-five years are no longer relevant. But it is also well to remember that the Marine Corps has developed those competencies through its intellectual efforts as well as through its blood, sweat, and tears. Given the dramatic changes in the form and the origins of the threats that now confront the United States, the intellectual challenges of the profession of arms will be even greater than in the past.

Exacerbating the difficulties confronting the officer corps is the fact that a technological and scientific revolution is occurring in the world outside the American military, one

characterized by rapid advances in information-related technologies. Moreover, it seems likely that, with breathtaking advances in the areas of the biosciences and nanotechnologies projected by many, the pace of change will only accelerate.

This ongoing revolution is fundamentally altering the conduct of tactics and operations, and the political and social context within which wars will occur as well. At a minimum, this emerging new world demands that officers not only become literate in the fundamental nature of war, but also understand and adapt to the technological revolution occurring throughout society. The implications of that focus for the Marine officer of 2020 and for how the Marine Corps should think about Professional Military Education in the coming decade, are the subject of sections I and III.

### ***The Future Marine Corps Officer***

Marine officers stand atop the profession of arms, renowned for their honor, courage, and commitment. Through the decades they have embodied the ethos of the Corps, remaining *always faithful* to fellow Marines and the nation they serve. Their soldierly skills are unmatched. Imbued with a love of Corps and country, these officers have willingly placed themselves in danger on freedom's frontiers, leading their Marines in battle, outfighting the toughest foes, and using their intellects to solve intractable problems, all while assuming a range of other responsibilities. Their stories are legendary, and their accomplishments enrich the Marine Corps' heritage.

Yet, the coming decades will demand even more from Marine Corps officers. In the rapidly emerging strategic environment, the Marine Corps—as a body and as individuals—must not only possess the attributes long associated with the Corps' leaders, but also develop new and unique qualities as well.

The strength of the officer corps rests on its moral and ethical values. A deep understanding of the importance of spiritual awareness buttresses those values. They are the elements upon which Marine officers build their code of honor. Officers in the future will need to continue to incorporate these values and awareness into the fabric of their being if they are to master the challenges of the coming world: a world where they are likely to face trials their predecessors could hardly have imagined. In their most difficult times, Marine officers must rely on these traits as a source of strength and guidance.

Marine officers have always had a special empathy with their Marines and felt privileged to lead them. This natural caring has been a singular strength of the Corps. In this regard, the future cannot be different. Marine officers must continue to have a love for their Marines as deep and abiding as the love they have for their children, while always remembering that the mission must be accorded ultimate priority.

A profound knowledge of the history of the Corps and the military profession have inspired and informed Marine officers. History's practical utility will not lessen in the coming years—if anything, its worth will only increase. While history does not repeat itself, it can

provide the context for virtually every decision the Corps calls upon its officers to make, especially during combat operations. It will be no different in the future.

History is least relevant when “tomorrow” is like “today.” Yet there is considerable evidence that we live in a period of high uncertainty, where the future is likely to be quite different from recent events. Therefore, the range of experiences that historical depth provides is crucial. For this reason, the Marine Corps must encourage its officers to develop a penchant for historical study, while ensuring history permeates its professional education. As the noted military pundit Basil Liddell Hart once wrote, “There is no excuse for any literate person to be less than 3,000 years old in his mind.” Historical literacy will remain vital to Marine Corps officership.

For more than 230 years, the nation has called on Marines to execute a wide variety of tasks, not all directly related to confronting its enemies. Masters of military operations, Marine officers have shown an uncanny ability to be jacks of many other trades. Along the way, they have served as diplomats, teachers, police officers, public officials, relief workers, builders, astronauts, peacekeepers, and peace enforcers.

All evidence points to the need for officers to possess a greater variety of skills and a wider breath of knowledge if they are to meet new demands both on and off the battlefield. Developing intellectual capability depends on the willingness of Marine officers to “cast their nets widely.” The Corps must strive to commission officers with this quality, while encouraging those in its ranks today to expand their fields of interest, while at the same time identifying officers who need to focus on specific skills. Professional Military Education provides one of the essential means for creating that sense of and thirst for knowledge in Marine officers, while widening their vistas. For Marine officers, learning must be a continuous and life-long endeavor.

Scientists have long known that any closed system—a system not connected to others—is incapable of receiving energy, thus inevitably tending toward entropy, a state of disorder or uncertainty. In a real sense, a corps of officers not open to the energy provided by new ideas and concepts tends to stagnate. Thus, Marine officers must study areas well beyond the profession of arms. They must travel, immerse themselves in foreign cultures, learn to appreciate the arts, explore the humanities, and grasp the implications of scientific discoveries. They must also look for adventures and welcome situations that regularly test their physical, mental, and emotional abilities. Over time, every Marine officer, to the extent possible, should take on the mantle of the “Renaissance man,” integrating the contributions of multiple intellectual disciplines. Professional Military Education is central to this learning. With every new experience, officers will increase their capacity to adapt to the unexpected. In the end, they will see possibilities where others see obstacles.

Although officers understand that few, if any, individuals naturally like to fight, they recognize that someone must know how to fight, and do so as effectively as possible. Therefore, every officer must possess an appreciation of the skills needed to lead a Marine unit in combat. Moreover, officers must maintain the individual combat skills characteristic of Marines. Whether leading or supporting, officers must display an innate desire to move willingly to the sound of the guns. The Greek historian Thucydides once wrote, “The secret of happiness is

freedom and the secret of freedom is courage.” Marine officers who have been in combat know that the secret of courage is professional competence. Such competence results from study as well as experience. The Corps must ensure its officers receive a healthy mix of both.

In addition to being fully qualified in a military occupational field, Marine officers must be proficient in the use of combined arms, especially Marine Air-Ground Task Force operations. Furthermore, at an early stage in their careers, they must begin to acquire competency in joint and combined operations. They must ensure that as senior field grade officers they have fully developed this competency. Helping to build and then function as members of a joint or coalition force must become second nature.

Today’s Marine officers must possess greater expertise in counterinsurgency and stability operations and a more extensive knowledge of nuclear and biological defense operations than is currently the case. Both types of operations have been outside the practice of many Marine officers in the recent past; this cannot continue.

Today’s Marine officers must also have the knowledge required to coordinate the employment of all elements of national power. Increasingly, they will see the manifestations of these elements at lower levels of command. Officers must be especially adept in understanding how military force can accomplish political goals and strategic aims. In this regard, it is well to recall Clausewitz on this subject:

...war is simply a continuation of political intercourse, with the addition of other means. We deliberately use the phrase *‘with the addition of other means’* because we also want to make it clear that war in itself does not suspend political intercourse or change it into something entirely different.

Today’s Marine officers must be familiar with national security strategy and policy as well as the responsibilities of other federal departments and agencies. Similarly, they must understand the roles that international organizations and non-governmental agencies play in military operations, especially at the lower end of the conflict spectrum.

Since the end of the Second World War, frequent routine deployments and occasional involvement in contingency operations have enabled most career Marine officers to become familiar with other parts of the world. Many have served repeated tours in the Mediterranean, the Far East, and Southwest Asia. A small number have even acquired the ability to speak the languages of these areas. Current operational trends suggest that the Marine Corps will need officers with cultural and language expertise in other regions as well.

The Marine Corps needs to ensure that the civilian and military education of officers reflects this expanded international focus, to include instilling an appreciation of cultural anthropology and geography. To achieve this capability, the Corps may have to adjust policies for the accession of officers, emphasizing the selection of those with a proficiency in cultural knowledge and language skills. Such skills and knowledge might eventually become a requirement for commissioning. Moreover, Professional Military Education programs should aim at enhancing these skills and knowledge as officers progress through their careers.

Over the past half-century, the Marine Corps has sought to diversify the racial and ethnic makeup of its officer corps to support larger social goals. In the years ahead, it may need to focus such efforts on acquiring those knowledgeable of certain cultures.

To overcome the complex, dynamic, and unique problems that arise from interactions in the emerging international security environment, Marine officers must hone their intellectual skills. Foremost among such skills is the ability to think critically when faced with either concrete or abstract problems. Knowing when and how to ask the right questions is essential, particularly when confronted with an over abundance of information, much of which is conflicting. This is especially true when an officer is trying to establish exactly what the problem is, since formulating a problem is necessary before one can attempt to solve it. In its approach to military planning, the Marine Corps must emphasize the skills required to accomplish such *problem setting*. They are skills that allow officers to plan effectively. Developing such skills requires incorporating instruction in system theory, operational design, and critical thinking into curricula.

There is an old adage that, “If you have not written about a subject you have not truly thought about it.” The difficult and multifaceted problems Marine officers confront call for development of written and oral communication skills that permit officers to engage in rich discourses. A university degree no longer assures that those applying for and earning an officer commission possess superior writing and speaking talent. The burden to foster these crucial competencies will increasingly rest on Professional Military Education.

Marines have always recognized that the science of war supports the art of war. Though its importance was acknowledged, technology has seldom been at the center of Marine Corps thinking. However, as information technology becomes ubiquitous, supplanting the common pen and paper with the word processor, and the map and grease pencil with an electronic display, it is incumbent that Marine officers possess an understanding of that technology. If technology is not to master an officer, he or she must master it. Understanding the basic principles of communications and network theory, system architectures, and the effective use of information management tools enables such mastery. The Corps’ Professional Military Education must provide the foundation and then keep officers abreast of the latest information technology that allows them to be proficient in its use.

The demands on the time of Marine officers have increased dramatically in recent years. An officer can easily find his or her life out of balance due to conflicting professional and personal responsibilities. Alleviating such conflicts requires the concerted effort of individual officers and their commanders. Ignoring the tensions inherent in these demands will undermine the effectiveness of the individual officer and the organization.

In most ways, Marine officers of the future will resemble a long line of predecessors – they will truly be *Old Corps*. In other ways, though, they must represent a *New Breed*. So it has always been and must always be.

## ***The Implications for Professional Military Education***

The accelerating rate of change in our world will demand the sharpest and most original thinking from the Marine Corps in general, and from the Marine Corps University in particular. The University atmosphere must welcome independent thinking and be tolerant of divergent positions. In other words, the Marine Corps University must nurture and protect the future “Young Turks” and the mavericks that will help prod our doctrinal development in new and unanticipated directions.

The Marine Corps confronts a number of daunting challenges in preparing the officer corps to meet a complex and difficult future. These challenges demand that Professional Military Education begin before officers come on active duty and continue throughout their careers to retirement. This requires attention at all levels of command, not just from Marine Corps University. Selection and promotion of officers must emphasize Professional Military Education along with performance in the field. Even more importantly, mentoring and individual responsibility must play crucial roles in an officer’s Professional Military Education.

The in-residence schooling that officers receive can only point the way toward future professional and intellectual development. Yet, it inevitably must play a major role in setting the Marine Corps’ intellectual standards and the culture. Here, the quality of students as well as the size and academic standards of in-residence schools themselves demand the highest attention from senior Marine leaders. This is not an easy task, because the results of educational efforts are often not apparent for years, if not decades. Nevertheless, Marine Corps University and other institutions of Professional Military Education provide the intellectual seed corn on which success of the U.S. military in the future will depend.

There are three clear components to Professional Military Education: the efforts of individual officers; the emphasis and encouragement provided by Marine commanders at all levels; and the contribution that the schools make to the intellectual development of officers. Of these three elements the first is the most important, because in the end, it is a duty of each officer to educate him or herself in the profession. But the Marine Corps also has responsibilities. It must guide, encourage, and support its officers in their self-education efforts. Moreover, it must provide real inducements, such as graduate education, to those who have shown exceptional intellectual talents.

The goal of Marine Corps University in the processes of Professional Military Education must be to raise the vision and understanding of officers either through its non-resident courses or through the challenging curriculum presented to those in residence. As Admiral Stansfield Turner commented in the mid 1980s:

War colleges are places to educate the senior officer corps in the large military and strategic issues that confront America . . . . They should educate these officers by a demanding intellectual curriculum to think in wider terms than their busy operational careers have thus far demanded. Above all the war colleges should broaden the intellectual and military horizons of the officers who attend, so that they have a conception of the larger strategic and operational issues that confront our military and our nation.

There are two crucial elements to a successful program in Professional Military Education. The first is imparting an ability to think critically and creatively, both in operations and in acquisition or resource allocation. The second is the ability to draw from a breadth and depth of education in a range of relevant disciplines to include history, anthropology, economics, geopolitics, cultural studies, the 'hard sciences,' law, and strategic communications. A significant difficulty that staff colleges and war colleges have confronted over the past half century lies in their attempts to teach everything—the “Pecos River approach,” a mile wide and an inch deep. Even that approach has still missed major subjects such as Islamic studies and culture. Thus, at the highest level, the Marine Corps needs to determine what subjects officers must study and learn, discarding what is superfluous or only nice to know.

When General Gray, the 29<sup>th</sup> Commandant, founded Marine Corps University almost two decades ago, his aim was to create “a world-class” educational institution for the study of war and the profession of arms. Marine Corps University has made considerable progress since then. Yet at present, it is not a world-class university. To realize General Gray’s vision, the Marine Corps must have access to the resources that a world-class institution requires. It currently does not possess that access. “Doing more with less” in educational terms is simply a recipe for mediocrity.

The study group recognized early on that to have a world class university, you must have a world-class faculty, world-class students, a world-class curriculum, and world-class facilities and resources. This means recruiting a faculty that combines outstanding scholarship and outstanding teaching. Accomplishing the former requires providing faculty with the time needed to engage in scholarly pursuits. Achieving the latter requires frequent and enduring contact between the schoolhouse and the operating forces in ways that link scholarship to ‘real-world’ concerns.

An equally important element is the students. With few seats available in the residence programs, the Marine Corps must fill them with those officers who have demonstrated the highest potential. Schools must not be places that manpower managers populate with those who are easiest to move or who need breaks in “their busy Marine Corps careers.” The Marine Corps must insure only its most promising and deserving officers enter the institutions of Professional Military Education.

Another major element in Professional Military Education is the curriculum. An academic year is a very short period of time. There are only a limited number of subjects on which students can study in depth to establish the intellectual base for continuing their self-education efforts. A first-class curriculum must rest on case studies and theoretical and historical analyses that enable an understanding of the past and encourage thinking about the future. That demand, in turn, requires a balanced curriculum, leaving sufficient time for reading and reflection as well as for seminar participation and writing assignments. Graduate education that inculcates both creative and critical thinking demands an approach that does not spoon-feed the students. The idea that real learning does not require hard work is a product of the 1960s revolution in education, the unsatisfactory results of which are only too clear.

The last vital elements of a world-class educational system are resources and facilities. Without sufficient resources one cannot hire a “world-class” faculty, or maintain a first-class library. Equally significant is the IT infrastructure, particularly given the importance of the internet and war gaming. The current IT infrastructure at the University is appalling.

The Marine Corps needs to address a number of issues to achieve the goals of a world-class system of professional education. Some of these will require fundamental alterations to the legal framework and the personnel system within which the services work. Marine Corps University can easily address some issues in the short term, provided it receives major increases in funding. In some areas, such as faculty manning and IT, the Marine Corps is simply not providing the University the resources it requires. Other problems can only be alleviated in the long term. Sections II and III lay out paths the study group believes the Marine Corps leadership needs to follow to create the system that the challenges of the 21st century require.

## ***The Questions***

Having characterized the strategic environment, described the Marine officer prepared to operate successfully within that environment, and identified the implications for the Professional Military Education program, the study group: (1) examined the basic structure and content of the current officer PME program; (2) considered the approaches the Marine Corps might take to develop leaders capable of recognizing and adapting to the changing character and form of conflict; and (3) assessed how the Marine Corps could go about the task of developing officers who think critically and creatively, plan, calculate risks, and then act decisively. The outcomes of the group’s study and deliberations and its recommendations follow.

### ***Question #1: Does the basic structure and content of USMC officer PME require change? If so, why?***

The rapidly changing nature of the threats to U.S. national security and correspondingly sharp changes in the character of conflict demand the highest degree of professionalism and adaptability within the Marine Corps’ Professional Military Education system. Marine officers, from the newest lieutenant to the most seasoned general, require the most responsive, relevant, and imaginative educational programs that the Marine Corps can provide them.

The basic structure and content of Marine Corps’ officer Professional Military Education barely meet current requirements, and left unchanged will increasingly be unable to meet the needs of the Marine Corps and its officers. America’s national security establishment and the Marine Corps confront a world of accelerating political, economic, technological, social and military change. Correspondingly, the Marine Corps must periodically make changes in its education and training structure, to include its instructors, curricula, infrastructure, command involvement, and individual officer commitment. In the past, the Professional Military Education system has never failed the Marine Corps, and the Marine Corps has never failed the nation, in large part because it was able to change. The need for change is even more important now. The Marine Corps must make adapting and improving its PME program a high priority investment.

The good news is that the necessary changes rest on a solid foundation. The basic structure of Marine Corps officer Professional Military Education is sound. The predecessors of today's leaders created a system that provides opportunities for Marine officers to be educated in a continuous and progressive fashion throughout their careers. The Marine Corps' PME program has supported professional and intellectual development within its deliberate and emergency deployment rhythms and personnel rotation practices.

Over the last fifteen years, the addition of new educational venues has vastly expanded professional educational opportunities for officers, increasing overall effectiveness and professionalism across the Corps. These enhancements include, among others, the School of Advanced Warfighting, the Marine Corps War College, the Commanders' Course, the School of MAGTF Logistics, the Senior Leader Development Program for General Officers and the College of Continuing Education. These initiatives are testimony to the high priority the Marine Corps has traditionally placed on improving the quality of Professional Military Education. The accreditation of Marine Corps University schools and courses lends testimony to this, enabling the University to award well-earned advanced degrees to its officers and recruit superb civilian faculty from a variety of disciplines. In summary, the basic structure of the Marine Corps' PME program, while in need of increased resources and a commitment to adapt to rapidly changing circumstances, provides a solid foundation to meet the varied demands of a dynamic future security environment.

The content of Marine Corps officer Professional Military Education is varied, flexible, and wide-ranging. The students rotating through the education system bring fresh perspectives on current issues and problems. The faculty, a mix of military practitioners and civilian professors from a wide range of disciplines, is adapting to meet the new challenges facing the Marine Corps and other national security institutions.

However, the scale and scope of needed change threatens to outstrip the resources allocated for this purpose. Marine Corps University has done an admirable job in adapting to new and emerging requirements within available resources. Nevertheless, the strain on people and fiscal resources is showing; the institutional tachometer is at the red line. The University is at the point where it confronts an unacceptable choice between increasing focus on today's urgent requirements at the expense of future vision, innovation, and timely adaptation.

While the University is thin in all resources, it is critically thin in qualified faculty and supporting infrastructure. A reduced faculty means less research and preparation time, and a reduced capability to respond to dynamic conditions. Consequently, the educational horizon reduces to current operations. Moreover, the University's antiquated physical infrastructure and thoroughly inadequate information technology (IT) infrastructure make it difficult to provide even a minimum level of support, let alone keep abreast of changes in joint commands and the broader defense establishment. The sad state of current infrastructure compromises the University's ability to exploit advanced education techniques. Its graduates are becoming progressively less prepared for the challenges of their future duties. Furthermore, the infrastructure must be able to support current and future operational C2 systems. Starved of resources, Marine innovation efforts are increasingly ad hoc and short-term focused; University

investments are “penny-wise and pound foolish.” Simply put, the current course and speed of PME are no longer viable.

The Marine Corps’ educational establishment must reinforce its traditional emphasis on intellectual rigor, fostering a habit of thinking critically and creatively, and promoting a culture of continuous, progressive Professional Military Education from the most junior to most senior officer grades. At the same time, Professional Military Education must not only adapt to the ongoing changes along the spectrum of conflict, but also anticipate and adjust to coming changes in the security environment. The University must recruit a faculty that reflects the new circumstances in which the Marine Corps finds itself, as well as where the future may take it.

The need is especially acute with respect to this latter issue. During a “long era of tranquility at home” in the “interwar” years of the previous century, the Schools at Quantico embarked on a study of a signal failure in the Great War – amphibious warfare – in response to the hazy outlines of emerging requirements. Their efforts paid incalculable benefits in the Second World War. Today, the Marine Corps confronts a much greater degree of change coming at a much faster rate. Its educational establishment must lead the way in supporting the debates over how best to define the new environment, and undertake the necessary changes that will enable officers to succeed against the demands of this very different world.

Among the greatest emerging challenges are the products of globalization and the related information revolution, with its dizzying advances in information technology. Both promise to affect changes in the form of conflict just as profound as the changes in the ways the world does business. It’s not enough to passively accept these changes; the Marine Corps must be ahead of the curve, just as the founders of its educational system anticipated new requirements and explored emerging technologies prior to the Second World War.

Unity of command will be necessary to accomplish the necessary changes in PME. The essential educational elements of organizations like The Basic School and the College of Continuing Education must be directly responsive to the President of Marine Corps University.

Themes of enduring importance must be introduced to the officer corps as early as pre-commissioning, and continue to be reinforced through Officer Candidate School and The Basic School. Coordinating responsibility for these themes should be assigned to the University.

Resources must be commensurate with requirements. Requirements, in turn, must be linked to approved operational concepts that are linked to both existing and anticipated challenges, and detailed in a Marine Corps University campaign plan. The responsibility for Marine Corps University’s requirements and resource programming must be appropriately designated at the Marine Corps Combat Development Command or at Training and Education Command, or at the University, and appropriate staff and resources assigned in support.

In almost every case, the University’s infrastructure is as “seasoned” as the venerable traditions of the schools which depend on it. The current infrastructure will not support necessary changes to curricula or building the IT backbone characteristic of modern education institutions. The Marine Corps needs to pace – or even lead - current changes in the best

operational command and control procedures. The University must be able to replicate current advances in command and control, and connect with Marines and joint commands around the globe. This requires a holistic approach to avoid wasteful expenditures and repeated purchases of new equipment. Faculty and student research resources must reflect the demands of the current and anticipated operational environment, as well as those of a world-class education infrastructure. This means transforming the information technology backbone of the University's educational establishment. In most cases, this will require replacing current brick and mortar facilities. Consequently, the new facilities and information infrastructure plans must be developed concurrently.

Professional Military Education curricula must reinforce the elements of a classic education while maintaining their relevance to existing and emerging requirements. Challenging, rigorous, dynamic and responsive curricula are as necessary to recruit a superb civilian and military faculty as are financial incentives, such as a competitive salary and compensation package.

High priority must be given to recruiting a first-class faculty with sufficient range and depth to meet growing educational requirements. As the University expands its faculty, it must give priority to hires that will support the necessary adaptation of the PME curricula stemming from changes in the existing and emerging security environment. In this manner, the Marine Corps can increase its return on investment. Sufficient time must be set aside for the faculty to undertake research, anticipate new PME requirements, and support the development of a vision of the Marine Corps' contribution to meeting future security challenges. This means the faculty must have adequate range and depth to meet current operational demands and to anticipate future security challenges.

The success of the Corps always rests with the individual Marine. But the educational foundation is key to preparing Marines, and the Corps, for the challenges of the future.

### **Recommendations: Question #1**

- 1. Increase faculty size to better support current requirements. The enlarged faculty will permit improved current instruction, provide opportunities for more research and allow faculty members to represent the University at various academic seminars, conferences, and faculty education; engage in professional development; provide counseling and mentoring support to students; and support anticipation of requirements and adaptation of our education efforts. This will also serve as an effective incentive to attract high quality professors to join the University faculty.**
- 2. Establish unity of command over officer PME. The University must be responsible for the College of Continuing Education and assume cognizance over the educational components of The Basic School and pre-commissioning education efforts.**
- 3. Fix the responsibility for the University's resource programming efforts, and provide the staff resources to perform these duties properly. These responsibilities may be executed by the Marine Corps Combat Development Command, the Training and Education Command, or the University.**
- 4. Develop an integrated facility and information technology infrastructure plan to support officer education requirements in the current and the future information systems environment. The facility and information technology infrastructure must support day to day academic learning and be able to host current and future C2 systems for planning and wargaming.**

***Question #2: How can the USMC develop leaders who can recognize and adapt to the changing character and form of conflict, and operate confidently and effectively within it, at the tactical, operational, and strategic levels of war?***

Developing leaders who can recognize the changing character and form of conflict, adapt accordingly, and achieve proficiency in tactics, operational art, and strategy, requires creating and sustaining an environment that encourages personal and professional growth through rigorous, relevant, and challenging training and education. The Marine Corps must buttress its educational efforts with assignment policies and procedures that afford officers the opportunity to gain practical experience while applying the skills they acquire and the attributes they develop through Professional Military Education.

Education programs must be broad-based and balanced, embracing not only military matters, but also history, economics, geography, geopolitics, contemporary issues, and other subjects necessary to give Marine officers a genuinely global perspective. A liberal approach to education will widen the intellectual apertures of officers, enable them to anticipate changes in the character and form of conflict, adapt to those changes, and make timely and informed decisions - decisions that reflect a genuine understanding of and appreciation for all the elements of power and the appropriate role for military forces in the calculus of national power.

Marine Corps University must place particular emphasis on the study of history, complemented by the development of skills needed to think critically and the ability to geographically, temporally, and culturally transpose and translate the lessons that history offers. The Marine Corps must view acquisition of these skills as a shared enterprise where the individual officer, unit commanders, the institution, and the PME establishment all bear responsibility. The motivation and inquisitiveness of an officer, the wholehearted acceptance by commanders of their mentorship roles, the imperative need for thoughtful assignment policies and procedures, and the requirement for relevant curricula and supremely qualified teachers are crucial factors that merit close attention at every level.

Finally, the University must expose officers to a learning environment that enables them to progressively hone their tactical skills, master operational art, and acquire the knowledge, wisdom and experience that are prerequisites for strategy formulation and strategic decision-making. Initial military occupation skills (MOS) training and the Expeditionary Warfare School are meeting the mark insofar as imparting tactical skills is concerned.

Mastery of operational art is a demanding proposition. A collective, collaborative effort between and among Marine Corps Command and Staff College, the School for Advanced Warfighting, and Marine Corps War College is needed to meet this challenge. The study group believes that of these three institutions, the philosophy and orientation of the School of Advanced Warfighting provides the most promising pathway for development of masters of operational art. However, while this school is equipping officers with superior skills in operational art and science, it is not producing sufficient numbers of graduates to satisfy current demands stemming from commitments of Marine Corps forces to global contingencies and the

proliferation of joint task forces, and attendant requirements for large numbers of accomplished operational planners.

As the Marine Corps' top level school, Marine Corps War College is the appropriate focal point for development of strategic thinkers. However, MCWAR's greatest asset is also its principal limitation. While small enrollment maximizes opportunities for travel and interaction between students and faculty, it does not allow sufficient output to meet the growing demand for strategic thinkers at high level service, joint, and combined staffs and commands. This shortfall is aggravated by the demand the institution places on MCWAR to prepare officers to serve on the faculty of the Command and Staff College.

MCWAR is at a crossroads. On one hand, the argument can be made that the output of the institution (fewer than 20 graduates per year, approximately half of whom are Marines) is too small to justify its continued existence, and there are a number of alternatives available to generate qualified faculty for the Command and Staff College. On the other hand, a case can be made that the strategic thinkers who emerge from the halls of MCWAR have a different outlook than their peers from the other service war colleges. As opposed to Air War College graduates whose strategic orientation will understandably have an aerospace focus, graduates of the Army War College who will tend to view strategic challenges through a continental lens, and Naval War College students who will have a maritime orientation, MCWAR graduates emerge with a more general, holistic outlook with balanced emphasis on continental, maritime, and aerospace operations. Moreover, small class size, in comparison with counterpart institutions, affords students more extensive international travel, and opportunities for closer and more personal interaction with guest lecturers and senior strategists and policy makers.

The study group believes that these are unique attributes with national value that argue strongly for the perpetuation of MCWAR, reexamination of the utilization of its graduates, and an increase in its enrollment. These views are amplified in the study recommendations.

## **Recommendations: Question #2**

- 1. Monitor and evaluate the curriculum review process closely to ensure that PME programs keep pace with globalization and the constantly evolving international security environment. Provide officers with balanced opportunities to enhance their leadership skills through mastery not only of military subjects, but history, economics, geography, geopolitics, contemporary issues and other subjects required to give them a genuinely global outlook and perspective.**
- 2. Solicit a policy statement from the Commandant of the Marine Corps emphasizing the importance of the mentorship role that commanding officers must play in the overall professional development of Marine officers.**
- 3. Collaborate with the Deputy Commandant for Manpower and Reserve Affairs to ensure that the Professional Military Education and development process is complemented by thoughtful assignment policies and procedures that afford officers timely opportunities to apply knowledge and skills acquired through PME in the crucible of real world operations and events.**
- 4. Improve the performance of the PME system in developing masters of operational art by incorporating selected portions of the School of Advanced Warfighting's superior curriculum in Command and Staff College and Marine Corps War College curricula.**
- 5. Increase significantly enrollment in the School of Advanced Warfighting in order to meet growing service and joint demands for planners skilled in operational art and science.**
- 6. Increase the enrollment of Marine Officers in MCWAR, expand the faculty and increase funding to support two seminars.**
- 7. Collaborate with the Deputy Commandants for Manpower and Reserve Affairs and Plans, Policies and Operations; assess strategic planning positions within the Department of Defense. Identify and staff key billets that can best be filled by graduates of MCWAR.**

### ***Question #3: How can the USMC develop leaders who think critically and creatively, plan, assess risks – then act decisively?***

The Marine Corps has a proven method for developing exceptional leaders that blends training, experience, and education. The actual mix varies as an officer advances in grade and time in service. All officers are a product of their natural talents, their early life experiences and education, and the combination of training, experience, and education they gain during their Marine Corps careers.

Training of Marine officers is accomplished in a well-defined and executed system of institutional training. It consists of recruit training and entry-level training. Post entry-level training varies, but in most cases an officer receives some advanced military occupation specialty (MOS) training. From there, an officer receives training through attending advanced schools and courses. Although participation in the Marine Corps' formal education program, either by residence or distance learning, involves primarily classroom education, each school has some training component.

Education of Marine Officers is accomplished in a similarly well-defined system. During officers' pre-commission years, they are educated at whatever college-level course of study they choose. Education after commissioning is accomplished through a combination of individual study and attendance at Marine Corps formal schools, (either in residence or by distance learning). There are three levels of schooling after initial entry-level school (The Basic School and MOS-producing schools); career-level schools (CLS: Expeditionary Warfare School); intermediate level schools (ILS: Command and Staff College); and top level schools (TLS: Marine Corps War College). In addition, many Marine officers attend equivalent-level schools run by other services or the joint community.

The Marine Corps has neither the seats in its schools nor the officer population to provide resident education for all officers; therefore, a majority of officers receive their education through a good and improving distance learning program. While the distance learning program cannot replicate a 9-10 month in-residence program, it does fulfill minimum educational requirements. Additionally, self-study is encouraged throughout the Marine officer's career. However, except for the Commandant's reading list, there is no effort to guide self-study.

Experience gained by officers is instrumental in their development. Gaining hands-on experience in the field provides the officer with the confidence needed to make informed decisions and take appropriate action. The experience gained by serving in different billets and units is fundamental to a Marine officer's development. Prior service as a platoon leader, company commander, and battalion commander is critical to success as a regimental commander or a division commanding general. Sadly, there is not enough time in a Marine's career to gain all the knowledge and wisdom that training and hands-on experience might provide. This is especially true when we consider the attributes and skills essential for the officers of this century. Figure 1 graphically depicts the training and education continuum.

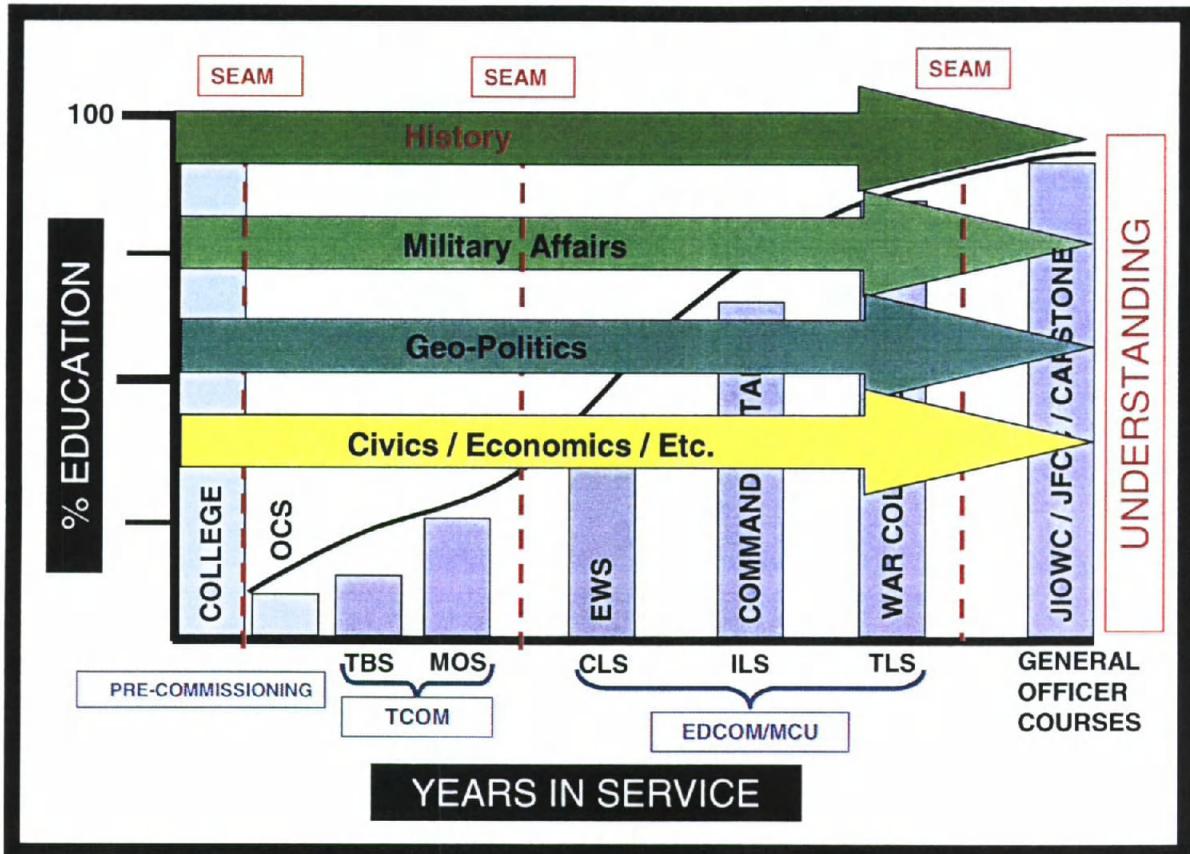


Figure 1. Training and Education Continuum

The key points depicted in this figure are:

- The immediate pre-commissioning education requirement is fulfilled primarily through college-level studies with a small component of training in the form of drills, summer camps and cruises.
- Initially, after commissioning an officer receives mostly training with a small component of 'education.' But as an officer advances in time in service and grade, the percentage of the training component decreases and the education percentage increases.
- The study group believes that certain themes and general areas of study should begin in college and continue throughout an officer's career, both in Marine Corps PME schools and through self study.
- The responsibility for a Marine officer's training and education is spread across several commands. Commands responsible for formal training and education include the USNA; the Commander for Naval Education and Training (CNET) for NROTC; the Marine Corps Training and Education Command (CCE), the Marine Corps Training Command (OCS and TBS); and the Marine Corps University (EWS, CSC, SAW, MCWAR, SOML). However sensible these responsibility arrangements are, they create seams disrupting the continuums of the themes and general areas of study.
- Marine Corps lieutenant colonels and colonels attend other institutional and other services' staff and war colleges, and National Defense University's (NDU) colleges, wherein the Marine Corps has no formal curricula input or oversight.
- However valid and proper the above arrangements may be, there exist 'seams' in regard to oversight of needed lifelong themes.

As the world becomes increasingly complex, so too is warfighting becoming more complex. Consequently, 21<sup>st</sup> century Marine officers require a more rigorous and better focused education system, one that delivers experience vicariously and provides the knowledge and confidence necessary to make critical decisions. As examples, one can learn about the risks of night river crossings by studying history without ever having performed a night river crossing. And one can understand how the internet works without having to work on servers and routers. Similarly, one can also understand much about the Iraqi culture without living in Iraq for many years. Therefore, it is critical the Marine Corps education program be robust.

### **Recommendations: Question #3**

- 1. Conduct a thorough review of courses, classes, and activities to identify those that need to be strengthened in light of the new officer requirements. Identify and then eliminate legacy courses no longer relevant.**
- 2. Identify the themes or general areas of study that are essential to developing the 21<sup>st</sup> century officer and then use these themes for curricula development throughout the education continuum. Figure 1 depicts some suggested themes or general areas of study, in the horizontal arrows.**
- 3. Create a process for coordination of curricula development across all command with cognizance over any portion of Marine Officer PME. This will ensure a rational and consistent approach to educating a Marine officer throughout his or her career. This process may include the ability to influence (or direct) the study of certain electives in undergraduate studies.**
- 4. Develop and implement IT and C2 instruction in every PME course. The embedded C2 curriculum at EWS impressed the study group. And we see a need at all officer levels for a deeper understanding of information technology and C2 systems. In addition, we recommend the development of a short course on IT and C2 systems for mandatory attendance by general officers.**
- 5. Change radically the overall framework and construct of EWS. All captains would receive the majority of EWS material via non-resident distance learning, including regional seminars in the new model. After completing this requirement, they would attend a relatively short (8-10 weeks) in-residence period of instruction at Quantico. The program of study at Quantico would concentrate on those subjects best suited for residence learning. Conversely, the non-resident learning portion would emphasize instruction most appropriate for distance learning. Conceivably, four to five EWS courses a year could be conducted with nearly all captains attending in a TAD status. Each captain would also incur a much shorter interruption in his or her early company grade “MOS experience learning” during their formative years.**
- 6. Develop a roadmap (perhaps a handbook) to guide Marine Officers in their career long self-study. Moreover, we recommend the University create forums such as virtual book clubs and wargames where officers can exchange ideas.**

## **Section II - Assessment**

### ***Question #4: What is the optimum combination of resident and non-resident PME?***

The best mix of resident and non-resident PME must balance what is desirable with what is required. One desirable combination of resident and non-resident PME would see every officer attending resident Professional Military Education at every level, and participating in non-resident courses to augment and supplement the formal resident education. This would be the ideal educational experience, but it would be possible only if the Marine Corps could suspend the requirements of active service in the joint arena, the operating forces, and the supporting establishment. Clearly this is impractical.

Another desirable combination would find every officer having at least one resident Professional Military Education experience beyond The Basic School, at either Expeditionary Warfare School or Command and Staff College, or the equivalent at other-service or Defense Department schools. This may be more realistic, but will still be subject to many variables affecting personnel assignment. A more realistic proposition would be to ensure that the relevance and quality of our non-resident officer Professional Military Education program remains as close to the resident program as possible, and that every officer completes his or her education at every level, through either a resident or non-resident program.

The programs should be complementary, offering the same material, as required, while adding unique opportunities as circumstances permit. The non-resident program should provide follow-on educational experiences for graduates of resident programs. This will ensure the greatest number of officers realize the highest possible educational experience, at a pace that accommodates the widest range of students. Ideally, graduates of the resident program should supplement their education through participation, as both mentors and students, in the non-resident program. This approach challenges the College of Continuing Education to offer material in addition to that provided in the resident schools' curricula.

A major advantage of the resident program—given equivalent curricula and the University's location within the National Capital Region—lies in the rich experience of learning in the company of other accomplished officers from various U.S. and foreign military services, and the government agencies. Resident students also benefit from their exposure to a wide range of visiting defense intellectuals, serving senior government officials, and other distinguished guests.

Properly executed, the non-resident program's seminar format can approximate the resident program's learning environment. Marine Corps University's current efforts to emphasize seminar programs should be sustained and enhanced. Some of the non-resident programs are located in areas where guest lecturers, instructors, participants and speakers are available. Some selected programs—for example, those in Japan and Hawaii—have access to guest lecturers that are not easily available to the resident program. Upgrading the University's information technology infrastructure could make lectures and commentary available to all,

regardless of location and time, either live or via electronic media. A quality video teleconference capability would significantly enhance the resident and non-resident programs.

Realizing this combination requires a higher level of resident faculty availability than is currently possible. Recruiting additional faculty will allow more faculty visits and exchanges between the resident and non-resident programs, and provide badly needed opportunities for research, enhancing both programs.

This combination of resident and non-resident education requires a clear chain of command and responsibility. All non-resident curricula and staff must be placed under the President, Marine Corps University. Unity of effort, the rationalization of curricula, and the management of resources to best support the common effort requires effective management and continuous attention.

#### **Recommendations: Question #4**

1. Increase the staffing of professor and instructor positions within the non-resident program.
2. Provide incentives to ensure the most qualified and experienced personnel seek teaching and administrative positions within the non-resident program.
3. Ensure that the relevance and quality of the non-resident program are as close to the resident program as possible. Sustain the initiative transitioning the non-resident Command and Staff College to exclusively seminar-based instruction.
4. Accelerate transitioning the non-resident Expeditionary Warfare School course to exclusively seminar-based instruction.
5. Expand the distance learning program to provide additional education opportunities for graduates of both resident and non-resident programs.
6. Establish an effective interactive information technology infrastructure to link non-resident and resident programs. Lectures, instructor presentations, conferences, discussions and consultations must be readily available across the entire PME environment through high capacity video and audio teleconference means.
7. Assign responsibility for non-resident instruction to include curricula and staff to the President, Marine Corps University.

#### ***Question #5: What is the balance of responsibilities between the institution, commands, and individuals for USMC officer PME?***

Professional learning is a life-long activity for Marine Corps officers. The individual officer, the officer's commander, and the Marine Corps as an institution are collectively responsible for ensuring the effectiveness of an officer's Professional Military Education. The form of that responsibility is different for each.

The Marine Corps must determine what competencies it expects of officers during the various stages of their careers. It must decide how and where officers are to acquire these competencies, be it through formal schooling, distance education, self-study, or experience gained in a variety of duty assignments. In addition, the Marine Corps must provide the resources necessary to achieve these Professional Military Education goals. It must also establish clear and appropriate metrics for measuring the performance of Professional Military Education providers as well as officer students' success in meeting specific learning outcomes.

Commanding officers and officers holding similar leadership positions are responsible for the professional development of those officers they lead. This requires, first, that they become familiar with what competencies the Marine Corps expects its officers to master, and through what methods and means. Commanding officers should tailor their officer educational programs to meet individual needs. Owing to the many demands made on today's officer, this will require allocating time and resources as efficiently and effectively as possible.

Tough choices will have to be made. How many of the available duty hours can an officer devote to his or her Professional Military Education? When can a unit spare an officer for professional educational opportunities, such as battlefield staff rides or professional seminars? Finally, commanding officers must evaluate how well each officer has mastered required skills and knowledge. At times, they can accomplish this objectively while evaluating staff work. However, they will frequently need to exercise subjective judgments, while observing tactical decision making. Of all the things commanding officers do to support Professional Military Education, none is more important than personal mentoring.

Ultimately, Marine Corps officers are responsible for their own professional development. Officers must be thoroughly familiar with what the Corps expects them to accomplish in terms of intellectual growth as they advance in their careers, and to establish well conceived plans to meet these obligations. Moreover, officers should strive to enhance these plans whenever possible in order to expand their intellectual horizons. As with any good plan, there must be contingencies to compensate for events such as unanticipated deployments, early change of station orders, and assignment of new duties. There may also be times when the Corps or a commanding officer is unable to meet an officer's Professional Military Education needs. If this happens, the officer affected must be prepared to step in and fill the vacuum. In the final analysis, Marine Corps officers should nourish and exercise their minds as naturally and frequently as they nourish and exercise their bodies.

Before the proper balance of Professional Military Education responsibilities can be established among the Marine Corps, commanding officers, and the individual officer, the Marine Corps and the University must first determine the desired learning outcomes that will enable officers to function effectively in the emerging security environment. This is no simple task. While a learning outcomes/task analysis approach to Professional Military Education has great value, there are no "cookie-cutter" solutions that can be applied to this challenge. Thus, the Corps must apply judgment in designing and implementing its Professional Military Education programs. Put another way, a Marine Corps officer's skill and intellect are more than the sum of

a list of learning outcomes. There are many aspects of education and knowledge that defy easy measurement, but which are nonetheless vital to the makeup of the complete professional officer.

### **Recommendations: Question # 5**

- 1. Determine the joint and service professional competencies the Marine Corps expects its officers to master during each stage of their careers.**
- 2. Once developed, apply joint and Marine Corps competencies to guide the development of Professional Military Education curricula.**
- 3. Require commanding officers to monitor and support the professional education of officers in their commands to include scheduling time for individual and unit conducted Professional Military Education.**
- 4. Require commanding officers to mentor officers in their professional development.**
- 5. Require commanding officers to evaluate progress by their officers in mastering required professional competencies.**
- 6. Ensure officers understand that ultimately they are responsible for their professional development; therefore, they must seek opportunities for Professional Military Education and develop self-study programs.**

### ***Question #6: What is the appropriate methodology to ensure Marine Reserve Officers receive PME?***

The requirements for Marine reserve officer PME are derived from the mission assigned to the reserve component:

...to augment and reinforce the Active force seamlessly by providing qualified units and individuals in time of war or other national emergency. In the augmentation role, the Marine Reserve provides trained and equipped units, detachments or individuals to active commands to bring their force structure to the level required for war or other national emergency. In the reinforcing role, the Marine Reserve provides similar assets to provide depth, replacements or capabilities not readily available in the Active force.

Current contingency operations and future requirements related to the Global War on Terror have underscored the crucial need for trained, ready and highly responsive reserve forces. Moreover, the heavy reliance on reserves to provide a sustaining base and fill key positions on combined, joint, and service staffs has given new meaning to the term “seamless.” To augment and reinforce active forces seamlessly, reserve officers must achieve levels of tactical and operational proficiency that are on par with active component officers. These requirements have validated the Marine Corps’ long-standing philosophy that active and reserve component officers should be indistinguishable, one from the other; a philosophy that is fully embraced by Marine PME programs.

To meet the needs of reserve officers, PME programs must satisfy four fundamental requirements: first and foremost, they must meet the professional training and education needs of reserve officers and prepare them for the roles envisioned by the mission statement; second, they must be structured in ways that are compatible with the personal and career requirements that confront reserve officers; third, they must permit completion within reasonable periods of time; and, finally, they must be supported by meaningful incentives.

The first requirement is met. The decision that reserve officer PME courses will mirror those provided to members of the active component is a wise one. This is not purely a matter of standardized curricula. Courses must enrich the educational process and maximize personal and professional development. Ongoing initiatives at the College of Continuing Education to transition the Staff College Distance Education Course immediately to an exclusively seminar-based approach and to follow suit with the Expeditionary Warfare School Distance Education Course in Academic Year 2011 or 2012 are commendable. Insofar as course content is concerned, it is imperative that course content review boards (CCRB) take a dynamic and rigorous approach to their responsibilities. The CCRB members must ensure that what is taught is relevant to the changing form and character of conflict, and the emergence of non-traditional missions. This is particularly crucial for members of the reserve who may not have the same opportunities as their active duty counterparts to compare and contrast theories learned in PME with real-world experience gained through participation in, or preparation for, actual contingency operations.

With the Command and Staff College Distance Education Course as a model, there is convincing evidence that the PME establishment has thoughtfully considered the many and varied requirements that compete for the time and attention of reserve officers. The initiative to convert the Command and Staff College Distance Education seminar program from a 12 month/12 seminar design to a 24 month/16-17 seminar construct is a case in point. This approach will provide students and seminar coordinators with the opportunity to prepare for each seminar more thoroughly. It affords greater flexibility in balancing family and civilian career obligations, while enabling officers to complete a rigorous course of study within a reasonable period of time. The inclusion of reserve officers in the Security Cooperation and Education Training Center (SCETC) initiative to provide Intermediate Level PME to Marines and International Officers through a one-year program that entails both resident and on-line instruction is another indicator that reserve officer PME needs are being addressed thoughtfully and creatively by the institution.

A number of initiatives have been undertaken to provide incentives to reserve officers to pursue PME. Awarding credit for a "satisfactory year" and authorization for paid drill periods for participation in the seminar program are examples. However, more can—and should—be done. Strengthening the linkages between PME completion, promotion and command selection should be considered. Steps should be taken to increase participation in Expeditionary Warfare School Distance Education Course by captains leaving active duty. Aggressive action should be taken to increase graduate credits for PME. Opportunities should be sought to provide additional pay and recognition incentives for PME completion. These matters are addressed in greater detail in the recommendations that follow.

### **Recommendations: Question #6**

1. Sustain the initiative transitioning the reserve non-resident Command and Staff College course to exclusively seminar-based instruction.
2. Accelerate the initiative transitioning the reserve non-resident Expeditionary Warfare School course to exclusively seminar-based instruction.
3. Include completion of Professional Military Education among precepts to boards considering reserve officers for promotion and assignment to command.
4. Engage the American Council on Education to increase graduate level credits for completion of the non-resident Command and Staff College course.
5. In coordination with the Deputy Commandant, Manpower and Reserve Affairs, seek legislative action to award reserve officers special pay for completion of Professional Military Education requirements.
6. In coordination with the Deputy Commandant, Manpower and Reserve Affairs, seek legislative action to include completion of career level PME as an entry level contractual requirement for reserve officers. If this alternative is not supportable make enrollment in PME a prerequisite for assignment to any Selected Marine Corps Reserve (SMCR) unit, Department of Military Affairs (DMA) detachment, or for return to voluntary active duty.
7. Recognize reserve officer completion of PME with a personal letter from the Commandant of the Marine Corps. Consider authorizing a distinguishing device for the Organized Marine Corps Reserve (OMCR) or Mobilizations ribbon connoting academic achievement.

### ***Question #7: What are the major faculty, student, curricula, and facility changes that should be considered?***

Change and adaptation mark the history of Marine Corps Professional Military Education. These qualities are needed now and in the coming years as Marine officers strive to keep pace with rapidly shifting challenges to U.S. national security. Meeting these challenges requires expanding the faculty, rebalancing the curriculum, and upgrading dramatically the University's PME infrastructure, especially with respect to information technology.

The Marine Corps must expand the University's faculty. The current level of staffing allows the faculty neither the time nor the opportunity to stay abreast of events or do the research necessary to enhance the educational experience of their students. Moreover, current staffing levels do not permit the recommended interaction between the resident and non-resident programs.

The accelerating pace of change in information technology has a profound effect on how the Marine Corps conducts operations in the field. Weapons employment is heavily dependent on position location technology. Multiple C2 systems are now fielded at the lowest levels.

Complex automated warfighting simulation systems are fully embedded in planning practices. Each presents important advantages and disadvantages; each separate system requires specialized knowledge and techniques. At higher levels multiple command and control systems are fielded across the combatant commands, requiring similar familiarity and learning. The University must modify its curricula to teach more of the fundamental knowledge necessary for Marine officers to operate effectively in this type of environment.

Antiquated buildings and an IT infrastructure that is limited to basic email are major impediments to meeting the University's goals for the future. Modifying current buildings and patching together separate IT systems is no longer an acceptable option. It epitomizes a "penny-wise and pound-foolish" approach of pouring more resources into a fundamentally flawed system. A comprehensive facilities and information technology study must be done to provide a vision of the future Marine Corps University's configuration and capabilities. Such a study would support the University's efforts to develop a facilities master plan.

### **Recommendations: Question #7**

- 1. Overhaul the University information technology infrastructure. The infrastructure must support best communications practices and modern gaming techniques. Replicate software variants used by the Marine Corps and unified commanders. The University staff and students must be able to keep pace with command and control and information technology developments and protocols in the Marine Corps and the joint community.**
- 2. Develop and implement a new facilities master plan in conjunction with information technology infrastructure modernization. A modern education effort requires a modern physical and information technology infrastructure. It will also serve to attract a high quality faculty.**
- 3. Update University curricula to ensure University graduates are well prepared in the technical aspects of modern command and control.**
- 4. Enhance curricula through academic chair agreements and guest speaker partnerships with private sector leaders. High executive officials from major corporations recognized for industry best practices must provide students their perspectives on leadership, IT utilization, distribution of goods and services, risk management, international presence and organizational structure.**

### ***Question #8: Is the length and degree of difficulty of current PME courses appropriate to the subject matter and majority of student population?***

Marine Corps officers achieve required professional competency through formal education at schools, distance learning courses, and self-study programs. Field assignments enhance and expand upon these educational experiences. Ideally, the Marine Corps would provide all officers with their Professional Military Education in a formal school environment, and would base the length of instruction solely on the time required to attain desired competencies. The Marine Corps would also tailor these courses to the needs of the individual

student. However, such an ideal world does not exist. Limited resources in the form of time, funds, and people require the Corps to employ alternatives like distance learning and limit the length of all instruction, including individualized instruction.

The Expeditionary Warfare School, Command and Staff College, School of Advanced Warfighting, and Marine Corps War College all limit their “academic year” to ten-months. This is a function of the traditional lengths of elementary and high school terms, and the summer rotation of personnel that it encourages, and is designed to enable officers with families to transfer duty stations when their children are out of school. Whether the traditional academic-year is the proper length for Professional Military Education in a formal school setting remains an open question.

The determination of the proper length of formal schooling for Marine Corps officers requires: first, identifying the professional competencies required for each grade. Second, with insights derived from the learning sciences, the Corps would then decide which competencies officers can best acquire in a formal academic setting, and which they can acquire least through distance learning or self-study. Finally, the Corps would determine the most effective combination of course length, student body size, and methods of instruction required for the education of officers in each grade. If resources prove inadequate to institute the optimum educational experience, which is likely, the Corps would need to substitute distance learning for some percentage of officers, recognizing that these courses are necessarily longer than courses conducted in resident programs.

The study group’s review of officer Professional Military Education determined that there is no identified set of competencies for Marine Corps officers. Marine Corps University did provide the group with a February 23, 2006 copy of a Caliber Associates’ study titled *Identification of Competencies Required of Joint Leaders*. Though there is a real risk of getting caught up in the systems approach to training and its emphasis on quantification, it does seem that the University needs baseline descriptions of what competencies the Marine Corps expects from its officers for at least the grades captain through colonel before it can accurately decide on the proper venues for achieving each competency. Even more important, the University needs these to assess the proper course length for those competencies taught in formal schools. The study group collectively judges that the schools at Quantico, with the possible exception of the Expeditionary Warfare School, are at about the right length.

Difficulty refers to being “not easily or readily done; requiring much labor, skill, or planning to be performed successfully; hard.” Is there any inherent reason that Professional Military Education must be intentionally “difficult?” Would the Marine Corps not rather this education be *challenging*: defined as “testing one’s ability, endurance, etc.?” Perhaps even better is a second definition of the word: “stimulating, interesting, and thought-provoking.”

Regardless of which word one chooses, the real measure of success is not a course’s difficulty; rather, it is the course’s capacity to maximize the amount of learning that a Marine officer can derive from the educational experience. Again, the degree of difficulty or challenge of any course derives from the determination of required professional competencies; the learning

outcomes required; and the skill of the faculty and quality of instructional methods and materials used to achieve these learning outcomes.

What makes a course of instruction difficult or challenging? The desired competency may simply be hard for some officers to attain, which in turn makes mastering instruction designed to develop that competency demanding. An officer's background may be weak in a certain subject, challenging his or her ability to master it. A poor learning environment might make realizing the expected outcomes unintentionally difficult in some circumstances. Faculty may want to make students stretch their abilities and expand their minds; to achieve this goal they may deliberately make instructional material challenging.

Intuitively, there seems to be value in having challenging courses of instruction, though simply making a course difficult for the sole purpose of it being difficult is absurd. Nonetheless, in one case—developing new officers' physical abilities—The Basic School has purposely heightened the Marine Corps' standard obstacle course and its confidence course so that officers arriving at their first commands will have no problem running these courses with their Marines. However, many of the cognitive skills required of officers are fundamentally different from those of enlisted Marines. Thus, there is no standard that the Corps can arbitrarily expect its officers to exceed, as it does with some physical skills.

In the physical realm—running, rappelling, climbing, swimming, etc.—the inherent difficulty or challenge is easy to see and measure, and so are the standards of success tied to such physical skills. For the acquisition of knowledge and its subsequent demonstration, this often is not the case.

Anecdotal evidence provided to the study group indicated that Marine Corps University's courses of instruction are challenging. Included in this evidence were references to the amount of required reading, length and quality of writing assignments, and difficulty of oral examinations. The fact that a small fraction of students has failed to achieve at least some academic goals—masters degrees being the most frequent—indicates that there is a degree of rigor in the courses of instruction. The letter grading system—as opposed to other systems such as “mastery statements”—and the identification of honor students provide further evidence of standards. Accreditation by the Commission on Colleges, Southern Association of Colleges and Schools (SACS) is another indication of rigor.

In addition to meeting long-term competency requirements, the curriculum should emphasize current operational needs as well as requirements expected to arise from the emerging security environment. Marine Corps University appears to be adjusting its curriculum in recognition of these needs. Incorporation of language instruction, increased cultural studies, and new courses covering insurgency and counterinsurgency, and stability operations provide examples. However, owing to the rapid pace of change, Marine Corps University finds itself playing catch up. In the future, the University must develop techniques that will enable it to anticipate emerging requirements early enough to adapt its curricula proactively, rather than after-the-fact. Ten years ago, General Krulak's insights on the “three-block war” and the “strategic corporal” gave more than a hint that change was upon the U.S. military. The challenge for Marine Corps University is to make better use of such insights in the future.

### Recommendation: Question #8

Once developed, use officer core competencies as the basis for a methodology that:

- Determines the most effective combination of course length, student body size, and methods of instruction required for the education of officers in each grade for those competencies identified as best mastered in a formal academic setting and then structure curricula accordingly.
- Then determines the most effective combination of course length, seminar size, and methods of instruction required for the education of officers in each grade for those competencies identified as best mastered through distance learning and then structure curricula accordingly.
- Then creates a handbook to assist officers in developing and undertaking individual self-study programs for those competencies identified as best mastered in such programs.

**Question # 9: To what extent should the following be included in the curricula?**

- a. Military History**
- b. Policy and Strategy**
- c. Traditional vs. Irregular Warfare**
- d. Language and Culture**

These four subjects must be emphasized in Marine officer's Professional Military Education. All are critical to an officer's ability to adapt to the unexpected, the unforeseen, and the ambiguous—in other words, to the inherent nature of conflict. The philosophy and direction of professional education must never lose sight of the distinction between what is essential in education and what is nice to know. Far too much of the latter—the “Pecos River approach”—a mile wide and an inch deep—has crept into the education of American officers.

Serious education requires deep familiarity with the subject matter at hand; and only such familiarity can lead to real learning and knowledge. As Clausewitz suggests about the purpose of education:

It is an analytic investigation leading to a close *acquaintance* with the subject; applied to experience—in our case military history—it leads to thorough *familiarity* with it. The closer it comes to that goal, the more it proceeds from the objective form of a science to the subjective form of a skill, the more effective it will prove in areas where the nature of the case admits no arbiter but talent... [Theoretical analysis] then becomes a guide to anyone who wants to learn about war from books; it will light his way, ease his progress, train his judgment, and help him to avoid pitfalls.

The primary purpose of education for officers is to inculcate within the officer corps an understanding of the fundamental nature of war. A careful and thoughtful use of history, military history in particular, represents one of the most effective tools. Since military organizations engage in war only episodically, it represents the most effective tool available. History provides innumerable insights at every level of war, significant understanding of leadership, and glimpses of the fog and friction that are integral to war. The insights and perspectives one can gain from the use of history can also illuminate ways of meeting new and emerging challenges. Complex case studies dealing with the issues of strategy and policy, campaign planning, and leadership can and do provide an analytic guide for officers later in their careers. To be sure, history offers no “silver bullets” or fixed solutions. Rather, it helps officers to ask the right questions and challenge the superficial PowerPoint briefings that characterize so much of current strategic and operational analyses.

In this sense, the education of officers on military operations, and strategy and policy, especially at the intermediate and senior level, must to a large extent rest on military history. As an example, the ‘strategy and policy’ course at the Naval War College provides clear analysis of the military factors affecting strategic choices. This course illustrates that the context of military events is essential to an understanding of strategic decision making. To study contemporary military operations without an understanding of military history and the political and strategic constraints that have marked campaigns throughout the ages can be dangerous. There are no such things as ‘pure’ military operations, because war is inextricably linked with its political and strategic context. The emphasis on the nexus between the two should depend entirely on the purposes and issues that the course of study aims to address.

In the view of the study group, there is no fundamental difference between “traditional war” and “irregular war.” The latter is war, as is the former. Whether a course of study addresses the guerrilla war that arose in Spain in the first decade of the nineteenth century, the German invasion of the Soviet Union in 1941, or the current situation in Iraq, one is still dealing with war, and the fundamental determinants of politics, friction, and uncertainty remain similar.

Moreover, one should never lose sight of the fact that the future has a way of surprising military prophets and pundits, who have often gotten the next war wrong. Therefore, what matters most is the ability of the U.S. military institutions to adapt to the actual conditions that the military leaders of the future will confront, and that, in turn, requires the ability to ask the right questions. *The purpose of Professional Military Education, then, is not to teach what the next war will be, but rather to provide officers the analytic tools to address reality, no matter how harsh and inconvenient it may prove to conventional thinking.*

The final aspect of this question deals with the role of culture and language in Professional Military Education. Each raises different questions. Cultural issues should form an intimate part of the historical framework that informs and provides the context for the study of military operations as well as strategy and policy.

Finally, language knowledge represents one of the most important, but at the same time, one of the most intractable of the tools that officers in the 21st century will need. The study of the mind has underlined that language proficiency is best addressed at young ages—the younger

the better. Moreover, establishing proficiency in a language resembles a training exercise more than analytic education. Here, it would seem that the Marine Corps would gain most by actively encouraging the study of languages by college and university students interested in becoming Marine officers and by providing specific opportunities for language study for those with aptitude, rather than by taking study time in its Professional Military Education schools away from the development of analytic skills required for military operations and strategic policy making.

### **Recommendations: Question #9**

1. Ensure the study of military history and historical analyses underpin the curricula of all Professional Military Education.
2. Continue to provide instruction in policy and strategy based on the classical theorists.
3. Continue to ensure a proper balance of instruction on war that revolves around fire and maneuver and on insurgent methods, i.e., guerrilla operations and terrorism.
4. Divest the curricula of universal language training in favor of targeted training for those with aptitude and interest, while enhancing cultural training.
5. Ensure cultural education is an integral part of the historical framework that provides the context for the study of military operations, strategy, and policy.

***Question #10: What is the value of the Occupational Field Enhancement Course (OFEC) and Command and Control Training and Education (C2 T&E) curriculum currently provided by the resident Expeditionary Warfare School (EWS)? Should these opportunities/experiences be provided to non-residence students and similar type opportunities be afforded to other Marines along the T&E continuum?***

The study group sees the expansion of Occupational Field Enhancement Course (OFEC) as a positive development and applauds Marine Corps University for undertaking this initiative. Fundamentally, OFEC is an excellent dose of semi-customized training for resident Expeditionary Warfare School (EWS) students embedded in the curriculum (but conducted mostly offsite, e.g., Twenty-Nine Palms). This training is essential, given today's security environment.

The fact that EWS provides this training, however, illustrates a deficiency in the Marine Corps training scheme elsewhere. The Marine Corps skill progression training for officers for some MOSs lacks the necessary mechanisms to provide what is being accomplished by OFEC.

For example, the Marine Corps' aviation community has a well-constructed and mature system for developing aviation captains: the Marine Aviation Weapons and Tactics Training

Program. This program, however, does not cover all the OFEC material, and full participation by all aviation captains in the Marine Corps is not achieved. The Marine Corps logistics community has some structured courses in the School of MAGTF Logistics, which provide company grade officer with two courses: the Tactical Logistics Operations Course and the Advanced Logistics Operations Course. But, again, these courses do not cover all the OFEC material; nor are they attended by all logistics officers. The ground combat arms company grade officers and other MOSs, such as public affairs and administration, have a more patchwork skill progression training scheme. What training is accomplished occurs at Army schools such as the Infantry Captains Career Course. The study group does not consider it practical for EWS to expand the OFEC to non-resident students. Rather, it believes this deficiency in company grade training should be examined by the Training Command to determine the depth and breadth of the deficiency, for the purpose of devising new training schemes.

The study group is convinced that the introduction of the Command and Control Training and Education (C2 T&E) curriculum into EWS was a necessary step in the further education of Marine officers. The information technology revolution is probably the most important warfighting development for the Marine Corps since the introduction of aircraft. The Marine Corps will fight in every conceivable scenario using modern-day and future command and control systems, enabled by the revolution in information technology. A sound understanding of the fundamentals of information technology and C2 systems is a prerequisite for effective performance by an officer in today's Marine Corps.

### **Recommendations: Question #10**

- 1. Add an appropriately crafted course on Information Technology and Command and Control to every formal Marine Corps PME school, including the non-resident courses.**
- 2. Develop a short Information Technology and Command and Control course for mandatory attendance by all Marine Corps General Officers.**
- 3. Continue improvement of the OFEC portion of the EWS curriculum.**
- 4. Training Command examine skill progression and other company grade training, e.g. MAGTF integration, combined arms and planning, and then compare it to existing programs and devise new training (schools and courses, etc.) to deliver that training.**



## Section III – Conclusions

Professional Military Education represents the most important investment the Marine Corps can make to meet the challenges that the 21<sup>st</sup> Century will bring. The Marine Corps has traditionally believed that people and qualities such as honor, courage, commitment, and intellect are more important than the material accouterments of war. Wars are won by the enduring powers of human spirit and intelligence, as opposed to ephemeral technologies and the weapons systems of the day.

This study group approached its tasks in this spirit. It is our feeling the American military will soon confront a period of sustained belt-tightening, in which there will be relatively few resources and in which the Marine Corps will have competing priorities and will have to make difficult choices. In such an atmosphere, it will be all too easy to relegate Professional Military Education to the end of the funding line. In our view, such an approach would represent the worst of outcomes. Furthermore, the study group concluded that simply maintaining the Professional Military Education status quo is unacceptable.

In no sense did the study group allow itself to be constrained by its charter. Instead, with the support and encouragement of the President of the Marine Corps University, we examined in a holistic way what we believe are the essential issues for the Marine Corps' approach to PME. We adopted this holistic approach because the emerging strategic environment underlines that the United States lives - and will continue to live - in a dangerous world. Uncertainty, ambiguity, and chaos will characterize that environment, and the performance of Marine officers will depend as much on their wits and education as on their ability to call on unlimited fire power.

We conducted this study from two perspectives. First, we drew on our experience to identify the strategic, operational, and tactical demands that will challenge officers in the future. Second, we spent considerable time examining the current program: its faculty, its resources, its courses of study, and its deficiencies. Based on our research, we concluded that the exceptional spirit, dedication, and intellect of the members of the University faculty and staff have taken the program as far as they can.

However, that 'success' is insufficient to meet the intellectual and military challenges that confront the Marine Corps and the United States. If the University is to reach the status of a "world-class" educational institution – as first envisioned by the 29<sup>th</sup> Commandant – then the Marine Corps must make *major* investments in the human and capital resources dedicated to Professional Military Education. This will require significant institutional commitments. Investments must address shortfalls in faculty staffing, technical infrastructure, and facilities. This will require continued generous support from institutions such as the Marine Corps University Foundation. However, the Marine Corps, as an institution, must bear the larger share of the burden. The old Marine saying of "doing more with less" is simply inappropriate.

Considering these and other factors, the group developed the following recommendations that transcend the boundaries of the study directive, and which will profoundly influence the Marine Corps' capacity to meet the nations' security needs.

## **Conclusion Recommendations:**

- 1. Obtain from the Commandant of the Marine Corps, a policy statement on Professional Military Education. This statement must elevate the importance of PME within the institution and place it on an equal or higher plane with other priorities such as physical conditioning.**
- 2. Ensure continuity in essential PME programs by stabilizing key positions. The practice of obtaining the services of retired officers with special aptitudes in the regimes most necessary to build and sustain a PME program of the highest quality and exploiting the flexibility that is inherent in Title X hiring authorities should be sustained.**
- 3. Unite all educational functions under a single officer of three-star rank or equivalent.**
- 4. Enlarge the institutional vision of PME. Regard it as a continuum that begins before an officer enters active service, persists as an essential part of his or her active duty daily lifestyle, and extends beyond retirement.**
- 5. Rebalance the curricula of the respective schools to place appropriate proportional emphasis on the art and science of warfare. Current programs place a premium on art to the point that science is underemphasized. This is in juxtaposition to the programs at counterpart institutions elsewhere in the Department of Defense.**
- 6. Initiate a coordinated, collaborative effort with the Department of Manpower and Reserve Affairs, to ensure that post-PME assignment policies and practices sustain and enhance the personal and professional development that occurs through the PME process. Moreover, these policies and practices must ensure that the expanded skills and abilities acquired by PME graduates are fully exploited to fulfill service and national needs.**
- 7. Correct strategic communications deficiencies in PME curricula. Content of courses taught at the university do not adequately address the emergence of information as a key strategic element in the 21<sup>st</sup> century battle space.**
- 8. Create a “publishing house” at the Marine Corps University.**

## Appendix I, Glossary

9/11	September 11, 2001
ACE	American Council on Education
ALOC	Advanced Logistics Operations Course
C2	Command and Control
C2 T&E	Command and Control Training and Education
CAOCL	Center for Advanced Operational Cultural Learning
CCE	College of Continuing Education
CCRB	Course Content Review Board
CLS	Career Level School
CNET	Commander for Naval Education and Training
CSC	Command and Staff College
CSI	Combat Studies Institute, U.S. Army, Fort Leavenworth, Kansas
DMA	Department of Military Affairs
DL	Distance Learning
DOD	Department of Defense
EWS	Expeditionary Warfare School
EDCOM	Education Command
EWTG	Expeditionary Warfare Training Group
GOI	Government of Iraq
GWOT	Global War on Terror
ILS	Intermediate Level Schools
IT	Information Technology
IT-C2	Information Technology Command and Control
JFACC	Joint Forces Air Component Commander
JFLCC	Joint Forces Land Component Commander
JFMCC	Joint Forces Maritime Component Commander
JIOWC	Joint Information Operations Warfare Center
M&RA	Manpower and Reserve Affairs
MAGTF	Marine Air Ground Task Force
MAWTS-1	Marine Air Wing Training Squadron One, Yuma, Arizona
MCCDC	Marine Corps Combat Development Command
MCWAR	Marine Corps War College
MCU	Marine Corps University
MCUF	Marine Corps University Foundation
MMOA	Manpower Management Officer Assignments
MOS	Military Occupation Specialty
MSTP	MAGTF Staff Training Program
NDU	National Defense University
NROTC	Naval Reserve Officer Training Corps
OFEC	Occupational Field Enhancement Course
OMCR	Organized Marine Corps Reserve
OCS	Officer Candidate School
PAJE	Process for Accreditation of Joint Education
PME	Professional Military Education

PP&O	Plans, Policies, and Operations
SACS	Southern Association of Colleges and Schools
SAW	School of Advanced Warfighting
SCETC	Security Cooperation and Education Training Center
SMCR	Selected Marine Corps Reserve
SOML	School of MAGTF Logistics
SSI	Strategic Studies Institute, U.S. Army, Carlisle Barracks, Pennsylvania
TAD	Temporary Additional Duty
TBS	The Basic School
T&E	Training and Education
TECOM	Training and Education Command
TEECG	Tactical Exercise Evaluation Control Group, Twentynine Palms, California
TLOC	Tactical Logistics Operations Course
TLS	Top Level School
U.S.	United States
USMC	United States Marine Corps
USNA	United States Naval Academy

## **Appendix II, Biographies**

### **General Charles E. Wilhelm, USMC (Retired), Chairman**

General Charles E. Wilhelm was the former Commander, U.S. Southern Command, Miami, Florida.

General Wilhelm graduated from Florida Southern College in 1964 and also holds an M.S. degree from Salve Regina College. He is a graduate of the Army Infantry Officer's Advance Course and the Naval War College.

General Wilhelm has held a variety of command positions. He commanded a rifle platoon and Company during two tours in Vietnam; served as a Company Commander in Headquarters Battalion and 3d Battalion, 8th Marines, 2nd Marine Division; was the Senior Advisor to a Vietnamese Army Battalion; Inspector-Instructor, 4th Reconnaissance Battalion; Deputy Provost Marshal, U.S. Naval Forces Philippines; and Commanded the 11th Marine Expeditionary Unit.

General Wilhelm's staff assignments include Assistant Battalion Operations Officer; Operations Officer and Executive Officer, 1st Battalion, 1st Marines. He served on the staffs of III Marine Amphibious Force; Logistics, Plans, and Policy Branch, Installations and Logistics Department, HQMC, and J-3, Headquarters, U.S. European Command.

In August 1988, while assigned as the Assistant Chief of Staff for Operations, II Marine Expeditionary Force, he was promoted to brigadier general, and was subsequently assigned as the Director of Operations, HQMC. In July 1990, he was selected to serve as Deputy Assistant Secretary of Defense for Policy and Missions, Office of the Assistant Secretary of Defense for Special Operations and Low Intensity Conflict. During Operations Desert Shield and Desert Storm, General Wilhelm relinquished his duties in the Pentagon and served as Deputy Commander of Joint Task Force PROVEN FORCE. General Wilhelm assumed duties as Commanding General, 1st Marine Division, in July 1992. He served as Commander Marine Forces Somalia from December 1992 to March 1993 as part of the U.S. led coalition in Operation RESTORE HOPE. General Wilhelm was confirmed for promotion to lieutenant general and assumed duties as the Commanding General, Marine Corps Combat Development Command, Quantico, Va., July 15, 1994. In August 1995, he was assigned as Commander, U.S. Marine Corps Forces, Atlantic/Commanding General, Fleet Marine Force, Atlantic/Commander, U.S. Marine Corps Forces, Europe/Commander, U.S. Marine Corps Forces, South/Commanding General, II Marine Expeditionary Force/Commanding General, Marine Striking Force Atlantic, Camp Lejeune, N.C. He was confirmed for promotion to general and assumed duties as the Commander, U.S. Southern Command, Miami, Fla., September 25, 1997.

General Wilhelm's personal decorations include: the Defense Distinguished Service Medal; the Distinguished Service Medal; Silver Star Medal; Defense Superior Service Medal with oak leaf cluster in lieu of a second award; Bronze Star Medal with Combat "V"; Defense Meritorious Service Medal; Meritorious Service Medal; Navy Commendation Medal with Combat "V"; Army Commendation Medal with Combat "V"; Joint Service Achievement Medal; Navy Achievement Medal; and the Combat Action Ribbon.

## **Lieutenant General Wallace C. Gregson, Jr., USMC (Retired)**

Lieutenant General Wallace C. Gregson retired from the United States Marine Corps in 2005 following a distinguished 37-year military career. Immediately prior to his retirement General Gregson served as Commanding General of more than 70,000 U.S. military personnel assigned to the Marine Forces Pacific, Marine Forces Central Command and Marine Corps Bases Pacific units. Marines and sailors under his command were deployed at installations throughout Asia, the Middle East, Afghanistan, and Djibouti. Earlier, from 2001 to 2003, while in Okinawa, Japan, General Gregson was Commanding General of the III Marine Expeditionary Force based in Japan and Hawaii.

Based at Camp Smith, Hawaii, Marine Forces Pacific is the largest field command in the Marine Corps, extending from the West Coast of the United States to the Arabian Gulf. At the time of his retirement General Gregson paid tribute to the Marine Corps and Navy personnel under his command, noting that "They have a heavy deployment schedule...many Marines and sailors are in their third tour in combat in the Middle East...and throughout they "have maintained the watch out here in the Pacific."

After graduating in 1968 from the United States Naval Academy, General Gregson completed The Basic School, and then served with the 1st Reconnaissance Battalion, 1st Marine Division, in the Republic of Vietnam from February 1969 to August 1970.

During more than two subsequent decades General Gregson held numerous positions of increasing responsibility within the Marine Corps. He also served with the United Nations Truce Supervision Organization in Egypt, as the Assistant Operations Officer for the Unified Task Force in Somalia for Operation RESTORE HOPE, as well in the Department of Defense and the U.S. Marine Corps Headquarters in Washington, D.C., and with the Central Intelligence Agency.

General Gregson received a master's degree in international relations from Salve Regina College, and a second master's degree in strategic planning from the U.S. Naval War College. His military awards include the Legion of Merit, Defense Meritorious Service Medal, Bronze Star Medal with Combat "V," and the Purple Heart.

He works as an independent consultant. He serves as a Trustee of the Marine Corps University Foundation, a Director of the Injured Marine Semper Fi Fund, and as an Advisor to the Center for Unconventional Security Affairs of the University of California Irvine. He is a member of the Marine Corps Association, the US Naval Institute, and the Council on Foreign Relations.

## **Lieutenant General Bruce B. Knutson Jr., USMC (Retired)**

At the time of his retirement, Lieutenant General Bruce B. Knutson, Jr., was serving as the Commanding General, Marine Corps Combat Development Command, Quantico, Virginia.

Lieutenant General Knutson graduated from the University of New Mexico with a Bachelor of Arts degree in economics during February 1969. Following commissioning as a second lieutenant and attendance at The Basic School, he completed flight training at Williams Air

Force Base, earning Air Force Wings in September 1969. Subsequently, he transferred to Marine Combat Crew Readiness Training Group Ten (MCCRTG-10), MCAS Yuma, where he underwent further training and was designated a Naval Aviator in January 1971. He then did initial training in the F-4 Phantom and on completion served with the Fleet Marine Force as an F-4 pilot with Marine Fighter Attack Squadron-323 at MCAS El Toro from September 1971 to April 1973. His next assignment with VMFA-115 included duty in Southeast Asia, Japan, and the Philippines.

Upon returning to the United States in 1974, he served once again with Marine Aircraft Group 11 at MCAS El Toro. He transferred to Marine Fighter Attack Training Squadron-101 at MCAS Yuma during July 1976, where he served as an F-4 Phantom instructor. Upon the initial activation of Marine Aviation Weapons and Tactics Squadron One during July 1978, he was selected as an original MAWTS-1 instructor. During this tour, he served as F-4 division head and as operations officer for the Joint Electronic Warfare/Close Air Support Project. During 1982 he received the Cunningham Award as the Marine Aviator of the Year.

Following graduation as honor student at Marine Corps Command and Staff College during June 1983, he served with Headquarters, III Marine Amphibious Force, Okinawa, Japan. He returned to the United States in July 1984 and served as the operations officer of MCCRTG-10 until February 1986.

Lieutenant General Knutson became the first commanding officer of Marine Fighter Training Squadron-401 on March 1, 1986. He commanded the squadron during its first two years as it introduced the Israeli built KFIR aircraft, and stood up as the Marine Corps' first and only adversary squadron.

In June 1988 he transferred to Washington D.C., where he attended the National War College. After graduation, he reported to the U.S. Central Command at MacDill Air Force Base, Fla., and served as chief of the Strategy Branch in the J-5 Plans and Policy Directorate, deploying to Saudi Arabia at the beginning of Operation DESERT SHIELD.

Lieutenant General Knutson reported to MAWTS-1 during September 1991 and served as the executive officer until assuming command during May 1992. In June 1994, General Knutson transferred to Quantico, Va., where he served as the Director, Training and Education Division, Marine Corps Combat Development Command. Following his tour at Quantico, General Knutson commanded the 1st Marine Aircraft Wing in Okinawa, Japan May 1996 to April 1998.

Lieutenant General Knutson reported to I MEF in May 1998 and served as the Commanding General until assuming command of the Marine Corps Combat Development Command.

Personal decorations include the Legion of Merit, the Defense Meritorious Service Medal with Oak Leaf, the Meritorious Service Medal with Gold Star, the Air Medal with Flight Numeral "3", the Joint Service Commendation Medal, the Navy and Marine Corps Commendation Medal, and the Navy Achievement Medal.

## **Lieutenant General Paul K. Van Riper, USMC (Retired)**

Lieutenant General Van Riper retired from the United States Marine Corps in October 1997 after more than 41 years of commissioned and enlisted service. During those years, he served in a variety of command and staff billets at posts and stations around the world, including seven tours in the Fleet Marine Force where he commanded at every level from infantry platoon to division.

He participated in or observed combat operations during five tours. As a second lieutenant, he commanded a platoon in Santo Domingo in the Dominican Republic crisis. As a first lieutenant, he was an advisor to the Republic of Vietnam's Marine Corps. As a captain, he led a rifle company in Vietnam. As a major, he was a United Nations Observer in the Sinai Desert and southern Lebanon. As a brigadier general, he served with I Marine Expeditionary Force in Operation DESERT STORM.

He is a graduate of the Army's Airborne and Ranger Schools, the Marine Corps Amphibious Warfare School, the Navy's College of Command and Staff, and the Army War College.

In retirement, he continues to participate in an array of defense and security related war games, seminars and conferences, and he lectures frequently at professional military schools. He also consults part time for a number of government agencies and commercial firms on defense and operational matters.

A student of military history, Lieutenant General Van Riper spends his leisure hours reading, writing, and visiting battlefields

Lieutenant General Van Riper held the Marine Corps University's Donald Bren Chair of Innovation and Transformation during Academic Year 2005-2006.

## **Dr. Andrew F. Krepinevich, Jr.**

Dr. Andrew F. Krepinevich, Jr. is Executive Director of the Center for Strategic and Budgetary Assessments, an independent policy research institute established to promote innovative thinking about defense planning and investment strategies for the 21st century. Dr. Krepinevich also served as a member of the Department of Defense's National Defense Panel.

An accomplished author and lecturer, Dr. Krepinevich has written extensively on a variety of security related issues, to include articles published in *The National Interest*, *Issues in Science and Technology*, *Armed Forces Journal*, *Joint Forces Quarterly* and *Strategic Review*, among others. He is also the author of a number of monographs, including *The Air Force of 2016*, *A New Navy for a New Era*, *Missed Opportunities: An Assessment of the Roles and Missions Commission Report*, and *The Bottom-Up Review: An Assessment*.

Dr. Krepinevich has testified on numerous occasions before the Senate Budget Committee, the House National Security Committee, and the Senate Armed Services Committee. He frequently contributes to both national and local print and broadcast media, including *The Washington Post*,

*The Wall Street Journal*, *The Los Angeles Times*, and *U.S. News & World Report*, and has appeared on each of the major networks and National Public Radio.

Dr. Krepinevich has lectured before a wide range of professional and academic audiences, including those at Harvard University, Princeton University, Stanford University, the U.S. Military Academy, the Naval War College, the George Bush Presidential Library at Texas A&M University, Europe's Marshall Center, and the Defense Department's "Summer Study," among many others.

Dr. Krepinevich received the 1987 Furniss Award for his book *The Army and Vietnam*, a critical assessment of the service's performance during the war. He gained extensive strategic planning experience in national security and technology policy through his work in the Department of Defense's Office of Net Assessment, and by serving on the personal staff of three secretaries of defense. During this period, Dr. Krepinevich wrote the Defense Department's seminal assessment of the emerging revolution in military affairs.

He has taught a wide variety of national security and defense policymaking courses while on the faculties of West Point and George Mason University, and currently lectures at The Johns Hopkins University School of Advanced International Studies, and Georgetown University. In 1993, following an Army career that spanned twenty-one years, Dr. Krepinevich retired from military service to assume the directorship of what is now CSBA.

A graduate of West Point, Dr. Krepinevich holds MPA and PhD degrees from Harvard University. He is a member of the Council on Foreign Relations. He is married to the former Julia Ellen Milians. They have three children, Jennifer, Andrew, and Michael.

## **Dr. Williamson Murray**

Williamson Murray graduated from Yale University in 1963 with honors in history. He then served five years as an officer in the United States Air Force, including a tour in Southeast Asia with the 314<sup>th</sup> Tactical Airlift Wing (C-130s). He returned to Yale University where he received his Ph.D. in military-diplomatic history, working under Hans Gatzke and Donald Kagan. He taught two years in the Yale history department before moving on to Ohio State University in fall 1977 as a military and diplomatic historian. He received the Alumni Distinguished Teaching Award in 1987. He took early retirement from Ohio State in 1995 as Professor Emeritus of History.

Professor Murray has taught at a number of other institutions, including the Air War College, the United States Military Academy, and the Naval War College. He has also served as a Secretary of the Navy Fellow at the Navy War College, the Centennial Visiting Professor at the London School of Economics, the Matthew C. Horner Professor of Military Theory at the Marine Corps University, the Charles Lindbergh Chair at the Smithsonian's Air and Space Museum, and the Harold K. Johnson Professor of Military History at the Army War College. At present he is a

Senior Fellow at the Institute of Defense Analysis and the Class of 1957 Professor of Naval History and Heritage at the United States Naval Academy

Professor Murray has written a wide selection of articles and books. He is the author of *The Change in the European Balance of Power, 1938-1939, The Path to Ruin* (Princeton University Press, 1984); *Luftwaffe* (Nautical and Aviation Press, 1985); *German Military Effectiveness* (Nautical and Aviation Press, 1992); *The Air War in the Persian Gulf* (Nautical and Aviation Press, 1995); and *Air War, 1914-1945* (Weidenfeld and Nicholson, 1999). He has edited with Allan Millett a number of books on the implications of the past for current military thinking: *Military Effectiveness*, three volumes (Allen and Unwin, 1988); *Calculations, Net Assessment and the Coming of World War II* (Free Press, 1992); and *Military Innovations in the Interwar Period* (Cambridge, 1996). Professor Murray has also edited with MacGregor Knox, *The Making of Strategy, Rulers, States, and War* (Cambridge University Press, 1994) and *The Dynamics of Military Revolution, 1300-2050* (Cambridge, University Press, 2001). Professors Murray and Millett have published (May 2000) an operational history of World War II, *A War To Be Won, Fighting the Second World War* with Harvard University Press, which already has received rave reviews from a number of newspapers and journals, including *The Wall Street Journal*, *The Times Literary Supplement*, *The Naval War College Review*, *The Journal of Military History*, and *Strategic Review*. Professor Murray's most recent books, *The Iraq War, A Military History* (Harvard University Press, 2003), written with Major General Robert Scates, Jr., and *The Past as Prologue, The Importance of Military History to the Military Profession*, edited with Richard Hart Sinnreich (Cambridge, 2006) and have also received excellent reviews.

Some of Professor Murray's most recently published articles include: "Clausewitz Out, Computer In, Military Culture and Technological Hubris," *The National Interest*, Summer 1997; "Air War in the Persian Gulf: The Limits of Air Power," *Strategic Review*, Winter 1998; "Preparing to Lose the Next War?," *Strategic Review*, Fall 1998; "Does Military Culture Matter?," *Orbis*, Winter 1999; "The Emerging Strategic Environment, An Historian's View," *Strategic Review*, Spring 1999; "Military Culture Matters," *Strategic Review*, Summer 1999; and "Military Experimentation in the Interwar Period," *Joint Forces Quarterly*, spring 2000. At present besides working as a defense consultant in Washington, he is working on a book dealing with the military history of the American Civil War.

**Fathers of Marine Corps**  
**Professional Military Education**



General Alfred M. Gray



Major General James C.  
Breckinridge



Major General John A.  
Lejeune

