The Brain of the Marine Corps

ALFRED M. GRAY'S ESTABLISHMENT OF THE MARINE CORPS COMBAT DEVELOPMENT COMMAND

by Ryoko Abe, PhD

Abstract: This article examines how 29th Commandant of the Marine Corps General Alfred M. Gray strengthened the Corps' "brainpower" as a key element in his efforts to rehabilitate the Corps' warfighting capabilities. Gray's brainpower reform included both the establishment of the Marine Corps Combat Development Command (MCCDC)—to serve as a "skull"—and other educational reforms that would develop the Corps' brain, which was expected to yield new warfighting concepts. This article stresses that the transition from the Marine Corps Development and Education Command to MCCDC was not just the establishment of a new organization but was Gray's challenge to bring about fundamental change to how the Corps would prepare for future warfare. While his predecessors mainly focused on modernization of existing equipment and formations after the end of the Vietnam War, Gray intended to transform the Corps' requirement system to produce new doctrine, education, training, equipment, and organization. The new requirement system was designed as a warfare-based, concept-based, and future-based system. This article also emphasizes that this new requirement system had been studied and designed by then-unknown colonels prior to Gray's inauguration as Commandant. Although Gray did not see his new requirement system through to completion, his efforts were an important beginning to the new system.

Keywords: Brain of the Marine Corps, Marine Corps Combat Development Command, MCCDC, brainpower, intellectual reform, doctrinal innovation, doctrinal reform, educational reform, maneuver warfare, future warfare, warfighting concepts, warfighting doctrine, requirements system, Alfred M. Gray

In the nineteenth century, the Prussian Army had the reputation of being an intellectual organization led by its general staff. At the beginning of

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the twentieth century, Spenser Wilkinson, a British military historian, described Helmuth Karl Bernhard Graf von Moltke's Prussian general staff as the brain of the army. The Prussian general staff paved the way for intellectual warfare by conducting intelligence missions, operational planning, research, and education during times of peace to prepare for future wars. During the Austro-Prussian War of 1866, von Moltke and his staff managed to solve their military problem by using new technology created from ideas generated during peacetime intellectual pursuits. One of their ideas was to transport separate troops and concentrate them at a decisive point; another was a decentralized command system referred to as Auftragstaktik

(mission tactics). The train was employed effectively because these new notions had been formed by von Moltke and shared within the brain of the army during times of peace. About a century later in North America, General Alfred M. Gray Jr. attempted to build such a brain for the U.S. Marine Corps.

This article examines how Gray, as the 29th Commandant of the Marine Corps, rebuilt the Marine Corps into an intellectual warfighting organization. He regarded improving the Marine Corps' "brain-power"—in tandem with improvements to the training program—as key to rehabilitating its warfighting capabilities. From 1987 to 1991, under Gray's strong leadership, the Marine Corps underwent a series of reforms to strengthen its capability to prepare for and carry out warfare.

Some existing research has outlined Gray's overall reform. In Semper Fidelis, which illustrates the Marine Corps' comprehensive history from the American Revolutionary War to the early 1990s, author Allan R. Millett discussed Gray's multiple attempts to increase the Corps' combat readiness.1 Gray's main effort each year as the Commandant is also demonstrated in Gerald H. Turley's The Journey of a Warrior. According to Turley, one of Gray's priorities in his first year as Commandant was to transform the Marine Corps' intellectual power as well as reforming its training, persuading James H. Webb Jr., secretary of the Navy, to continue developing the Bell Boeing V-22 Osprey, and deciding to require female Marines to attend Basic Warrior Training.2 While these works have summarized Gray's general changes, they have been less successful in explaining the purpose and process of each reform.

The Marine Corps' concept of warfare fundamentally shifted when Gray adopted the maneuver warfare concept as the Corps' main way of thinking about warfare in its official capstone doctrine, *Warfighting*, Fleet Marine Force Manual 1 (FMFM-1), published in

1989. The maneuver warfare philosophy described in Warfighting seeks to collapse an enemy's will and ability to fight through rapid and unexpected actions. In the last decade, the field of doctrinal reform has attracted significant attention.

According to Fideleon Damian, the notion of maneuver warfare resulted from individual Marine officers' passion and serious effort to enhance their intellectual fighting ability. Damian contends that the development of the warfighting concept was led by individual officers outside the Marine Corps' organizational hierarchy. According to Damian, in the 1970s, young officers such as then-major Michael D. Wyly, a creative military thinker who taught at the Amphibious Warfare School (AWS), and some captains began to study the maneuver warfare concept with the support of John R. Boyd, a U.S. Air Force pilot and Pentagon consultant, and William S. Lind, a legislative aide to U.S. senator Gary S. Hart. From the 1980s through the 1990s, they argued with their opponents about the effectiveness of maneuver warfare in the Marine Corps Gazette. Some of the captains who were assigned to the 2d Marine Division (2d MarDiv) managed to persuade Gray, its commander at the time, to exploit the concept in the division's exercises. After being inaugurated as Commandant in 1987, Gray officially introduced maneuver warfare to the Marine Corps' manuals.3 The integration of Boyd's ideas and the discussion of maneuver warfare within the Marine Corps in the 1970s and 1980s is examined in Ian T. Brown's A New Conception of War: John Boyd, the U.S. Marines, and Maneuver Warfare. Boyd's ideas provided a new conceptual framework of warfare to Marines when they faced a new type of mission, mechanized operations in Europe in the 1970s. Maneuverists in the Marine Corps agreed with Boyd that the Corps could destroy its enemy by destroying their will to fight rather than physically destroying enemy forces. Conversely, they sometimes misunderstood Boyd's statements, to their detriment. Most seriously, the maneuverists failed to understand Boyd's concept of moral conflict and

¹ Allan R. Millett, Semper Fidelis: The History of the United States Marine Corps (New York: Free Press, 1991), 632-35.

² Col Gerald H. Turley, *The Journey of a Warrior—The Twenty-Ninth Commandant of the US Marine Corps* (1987–1991): *General Alfred Mason Gray* (Bloomington, IN: iUniverse, 2012), 300–34.

³ Fideleon Damian, "The Road to FMFM1: The United States Marine Corps and Maneuver Warfare Doctrine, 1979–1989" (master's thesis, Kansas State University, 2008).

claimed the German employment of *blitzkrieg*, German operations and tactics during World War II, as their ideal military operations.⁴

The maneuver warfare concept was not only adopted in Marine Corps manuals but also applied to its operations on the battlefield. For instance, Anthony J. Piscitelli argues that maneuver warfare was reflected in the 1st Marine Division's (1st MarDiv) 2003 thunder run to Baghdad in his The Marine Corps Way of War, which made a major contribution to the discussion of development of maneuver warfare in the Marine Corps' operations. The commander of 1st MarDiv, James N. Mattis, decided to invade Baghdad using an unconventional route into Iraq to disrupt Saddam Hussein's will and capability to defend the country. After capturing the al-Basrah airport in southern Iraq, the division rushed to an-Nasiriya, leaving the seizure of al-Basrah to the British. Marines advanced on the fires in an-Nasiriya toward the north. When 1st MarDiv entered Baghdad, the Marines penetrated extremely rapidly-bypassing the Iraqi main forces where they were heavily positioned—to surprise the Iraqi forces and Saddam. Mattis commanded 1st MarDiv by mission type orders.5

Although the adoption of the maneuver warfare concept into the Marine Corps' doctrinal manuals was a great change in the history of its doctrine, doctrinal innovation was but one aspect of Gray's intellectual reform. Doctrinal reform does not automatically translate into a new way of operation. Rather, a force is transformed when a new concept is institutionalized into education, training, and personnel systems and integrated with equipment and organization. According to author Eitan Shamir, a new concept adopted in a military force's doctrine develops as a result of an interplay between external factors such as changes in warfare, civil-military relations, and internal factors such as technology, personnel policies, education,

and training.⁶ To fight with maneuver warfare, Gray attempted to shift not only Marine Corps doctrine but also its organization, training, education, equipment, and leadership. This was a complex change to rebuild the Corps into a professional warfighting organization. However, the institutionalization of the maneuver warfare concept has yet to be adequately researched. The results of this study will contribute to a better understanding of how the adoption of a new concept into a doctrine is transformed into a new way of warfare in a military force.

To conduct maneuver warfare, the Marine Corps needed to become an intellectual warfighting organization. To achieve this goal, Gray strongly believed that he needed to reform the Marine Corps' brainpower; in his first annual statement and report to the U.S. Congress in February 1988, he emphasized the importance of doing so. In the report, he defined the Corps' future warfare as "a high tempo, fluid, combined-arms, maneuver-oriented conflict," and its aim would "be to collapse [its] opponents."7 In this style of warfare, the Marine Corps' advantage comprised tactics and operational art, rather than equipment.8 Gray declared that the Corps' training and brainpower should be improved to raise the standards of its tactics and operational art to meet his expectations and to enable the Corps to "train the way it will fight." His brainpower innovation to transform Marine Corps Base Quantico, Virginia, into "the intellectual center of the Corps, where innovative and conceptual study will ensure proper attention to the conduct of military operation" included at least two parts.10 The first phase was Gray's establishment of the Marine Corps Combat Development Command (MCCDC), which would contain the Corps' brainpower (serving as a kind of skull). The

⁴Ian T. Brown, *A New Conception of War: John Boyd, The U.S. Marines, and Maneuver Warfare* (Quantico, VA: Marine Corps University Press, 2018), 136–40.

⁵ Anthony J. Piscitelli, *The Marine Corps Way of War: The Evolution of the U.S. Marine Corps from Attrition to Maneuver Warfare in the Post-Vietnam Era* (El Dorado Hills, CA: Savas Beatie, 2017), 167–81.

⁶ Eitan Shamir, *Transforming Command: The Pursuit of Mission Command in the U.S., British, and Israeli Armies* (Redwood City, CA: Stanford University Press, 2011), 6, 7.

⁷ Gen A. M. Gray, CMC, The Annual Report of the Marine Corps to Congress, in Department of Defense Appropriations for 1989: Hearings Before a Subcommittee of the Committee on Appropriations House of Representatives, 100th Cong., 2d Sess. (Washington, DC: Library of Congress, 1988), 894, 895.

⁸ Gray, The Annual Report of the Marine Corps to Congress, 894.

⁹ Gray, The Annual Report of the Marine Corps to Congress, 895.

¹⁰ Gray, The Annual Report of the Marine Corps to Congress, 895.

second phase was educational reform. To fill the skull of MCCDC with a brain—that is, Marines who were well-qualified to produce creative warfighting ideas—Gray reformed the Corps' educational program.

This article serves as a first attempt to explore how Gray strengthened the Marine Corps' brainpower, with a focus on the process of establishing MCCDC. The author first argues that the transition from the Marine Corps Development and Education Command (MCDEC) to MCCDC involved not only the creation of a new institution but also an attempt to bring about a fundamental change in the Corps' preparation for warfare. Gray's predecessors were also innovative Commandants who reformed the Marine Corps' equipment, organization, and training. For example, in the 1970s, the 26th Commandant, General Louis H. Wilson Jr., redefined the Corps' focus as maintaining operational readiness and versatility by air-ground teams during a difficult time when the Service was facing a dilemma.11 The shift in the American defense policy from a focus on Vietnam toward Europe meant that Marines needed to adapt to a new environment and new way of fighting called mechanized operations, which included the risk of decreasing the Corps' traditional amphibious capability.12 Thus, Wilson integrated two functions-mechanized and amphibious operations-in the concept of "operational readiness" and "versatility" and began combined arms exercises at the Marine Corps Air Ground Combat Center, Twentynine Palms, California. In contrast, Gray made an energetic effort to convert the requirements system itself, which produces and provides new doctrine, education, training, equipment, and organization to the Marine Corps. The novel requirements system was designed to be warfare-based, concept-based, and future-oriented. The role of the MAGTF Warfighting Center established at MCCDC was defined as creating the Marine Corps' future warfare concept. As he explained in his 1987 annual report to Congress, the new command's purpose was "to teach Marines how to think in, and about war." Gray took the initiative to transform the doctrine, education, training, equipment, and organization based on this idea.

The second proposition of this article is that the new requirements system was designed by historically unknown colonels, Colonel Michael D. Wyly, Colonel Patrick G. Collins, and Colonel R. C. Wise. Prior to Gray's inauguration as Commandant, they analyzed the problems of the Marine Corps' existing requirements system and studied what kinds of systems were appropriate for a warfighting organization. Before 1987, there were lonely and isolated colonels who pondered how to win a war and how the Marine Corps should prepare for it. Their attitudes and remarks sometimes provoked angry responses from their superiors and colleagues, because their ideas were often not consistent with accepted common sense in the Marine Corps during the 1980s. Despite this, they remained determined.

Finally, this article offers a case study that underscores the difficulty of reforming a military force, even though there may be strong leadership present. In the history of the Corps, Gray, an experienced fighter, demonstrated exceptional command of problem solving. However, even he sometimes failed to implement his goals in official documents. When he did not manage to do so, he used other approaches, such as expressing his thoughts to his fellow Marines in an interview in the U.S. Naval Institute's Proceedings or simply practicing his ideas without including them in official documents. The shift toward the Marine Corps becoming an intellectual warfighting organization was not completed by the end of Gray's time. However, his successors-such as the 31st Commandant, General Charles C. Krulak, and the 32d Commandant, General James L. Jones—continued his efforts.¹⁴ Gray's commandancy marked the beginning of a significant new period in the Corps' evolution.

[&]quot; Gen Louis H. Wilson, "CMC Reports to Congress: 'We Are Ready. Spirit is High'," *Marine Corps Gazette* 61, no. 4 (April 1977): 19.

¹² Terry Terriff, "Innovate or Die': Organizational Culture and The Origins of Maneuver Warfare in the United States Marine Corps," *Journal of Strategic Studies* 29, no. 3 (2006): 485–93, https://doi.org/10.1080/01402390600765892.

¹³ Gray, The Annual Report of the Marine Corps to Congress, 895.

¹⁴30th Commandant Gen Carl E. Mundy's interest lay in other areas.

Alfred M. Gray

In the history of the modern Service, Gray's background was unique. As the author Samuel P. Huntington pointed out in The Soldier and the State, regarding the dominance of senior officers from the American South in the U.S. Army and Navy in the nineteenth century, most of Gray's predecessors in the twentieth century were from the South or Midwest.¹⁵ They were graduates of such Service academies as the U.S. Naval Academy in Annapolis, Maryland; the U.S. Military Academy in West Point, New York; and the Virginia Military Institute in Lexington. In contrast to his predecessors, Gray grew up in Point Pleasant Beach, New Jersey, and was an independent learner who had not completed his formal higher education. It is interesting that while his predecessors mainly concentrated on reforming materials such as equipment and formation, Gray practiced intellectual reform.

The Great Depression, which led to a severe economic downturn in the industrialized world, influenced Gray deeply. His mother's relatives, who had lost their jobs, moved to his parents' house and stayed there. After graduating from high school, he did not enter a military academy or an Ivy League school. Instead, he attended Lafayette College in eastern Pennsylvania on an athletic scholarship but left halfway through his college career for financial reasons. After returning to New Jersey, working construction and cleaning trucks at night, he decided to enlist in the Marine Corps in 1950, when the Korean War broke out.16 To some extent, he was free from the traditional educations typically received by officers at prestigious universities, which instilled in young, predominantly upper-class students "the classic values: discipline, honor, a belief in the existing values and the rightness of them;" in other words, to justify the economic, social, and political system of the time and accept it as common sense.¹⁷ Thus, Gray could have been suspithe Amphibious Reconnaissance Platoon, Fleet Marine Force (FMF), Pacific. After being commissioned as a second lieutenant in 1952 and attending The Basic School in Quantico, he served as an artillery officer with the 2d Battalion, 11th Marines, and then as a commanding officer in Company A, 1st Battalion, 7th Marines, in Korea. From 1956 to 1961, he engaged in military intelligence missions abroad in Kamiseya, Yokohama, Sakata, and Akita in Japan, as well as in Hawaii. During the Vietnam War, then-major Gray served as a regimental communications officer, regimental training officer, and artillery aerial observer as part of the 12th Marines, 3d Marine Division. Then, he commanded 1st Radio Battalion elements throughout the I Corps, III Marine Amphibious Force (MAF), in Vietnam from September 1967 to February 1968.18 In the 1970s, Gray, then commander of the 4th Marine Amphibious Brigade, was in Europe. In the mid-1970s, the Marine Corps sent forces to carry out mechanized exercises on the northern front of the North Atlantic Treaty Organization (NATO). General Wilson selected Gray to assume command of 2d MarDiv, FMF, Atlantic (FMFLant), in June 1981 and, as lieutenant general, he was assigned as commanding general of FMFLant, II MAF, and FMF, Europe, in August 1984.

Gray considered military professionalism critical for Marine officers in terms of commanding Marines and winning in warfare. His remark, "I am looking for warriors to follow me," displayed with his portrait in the Gray Research Center in Quantico, reflects this belief.¹⁹ Throughout his career, he demonstrated to Marines his understanding of what was required to be a commander. First, a commander should have a stronger passion for tactics and operational art than anyone else. Anthony C. Zinni, who later became commander in chief of U.S. Central Command, described his

cious of the existing preconditions and common sense that pervaded the Marine Corps, which were sometimes incompatible with leading Marines to a military victory.

As an enlisted Marine, Gray served as part of the Armshibiana Pagamairana Plateau. Float Marine

¹⁵ Samuel P. Huntington, *The Soldier and the State: The Theory and Politics of Civil-Military Relations* (Cambridge, MA: Belknap Press/Harvard University Press, 1985), 213–14.

¹⁶ Scott Laidig, *Al Gray, Marine: The Early Years*, 1950–1967, vol. 1 (Arlington, VA: Potomac Institute Press, 2013), 1-11.

¹⁷ David Halberstam, *The Best and the Brightest* (New York: Random House, 1972), 51.

¹⁸ Laidig, Al Gray, Marine, 1-11.

¹⁹ As quoted in the legend under Gray's portrait, hung in the Gray Research Center, Quantico, VA, observed on 31 July 2017.

first impression of Gray as a Marine with a warm and wonderful personality, and more importantly, with an enthusiasm for tactics. Then-captain Zinni first met Lieutenant Colonel Gray in the late 1970s while they both served in the 2d MarDiv. The young captain was deeply impressed by Gray because he had "the same enthusiasm for tactics and leadership and things that usually I was hearing from captains and lieutenants."²⁰ A lieutenant colonel with a passion for tactics was not very common in the Marine Corps in the late 1970s.

Second, Gray believed that to command Marines, an officer had to develop military judgment. Gray developed his military judgment both through commanding troops and reading military history. He had been a close friend of Boyd and Wyly, who conceptualized maneuver warfare, and a proponent of their work. He had a strong reputation in the Corps for his focus on the importance of military history. For Gray, reading military history was not for mere entertainment. Rather, he believed that an officer should read military history to learn how great commanders of the past made decisions on the battlefield. Gray stated, "Marines will study real war-not fanciful war sometimes projected by peddlers of technology. By studying combat history, we learn how successful commanders think."21 While he commanded the 2d MarDiv, he recommended his Marines read military history books such as *Infantry Attacks* (1937) by Erwin Rommel, Lost Victories by Erich von Manstein (1955), and Strategy by B. H. Liddell Hart (1929).22 As Commandant, Gray initiated the Professional Reading List program, which distributed a list of mainly military history books to Marines.

Finally, taking responsibility for his own decisions as a commander and his Marines' actions was an important characteristic of Gray's throughout his career. For example, he attempted to accept full respon-

sibility for what happened to Marines of the ground combat element of the 24th Marine Amphibious Unit (MAU) in Beirut in 1983, as the 2d MarDiv commander. On 23 October 1983, the headquarters of the 1st Battalion, 8th Marine Regimental Battalion Landing Team, at Beirut International Airport was attacked by a terrorist bomber's vehicle; 241 servicemembers died and 60 were injured. Most of the dead and injured serving in the 24th MAU had been deployed from 2d MarDiv, commanded by Gray. According to Zinni, Gray-after investigating the incident-submitted a letter of resignation to indicate that he assumed responsibility for it. Although Gray was not the operational commander in Beirut, he took responsibility for the casualties. From this action, Zinni learned the significance of taking responsibility as a commander, he said, pointing out that Gray's sense of responsibility held him accountable not only for his decisions and their outcomes, but also for what happened to Marines under his watch. Zinni further reflected, "What I learned from General Gray is. . . . You stand up and you take responsibility. And so most people want to know that somebody was in charge and accepts responsibility. It doesn't mean that you made the mistake or it's your fault, but you accept responsibility."23 Gray would be appointed Commandant of the Marine Corps in 1987.

The Marine Corps in the 1980s

To understand why Secretary of the Navy James Webb appointed Gray as the 29th Commandant, one must explore the problems facing the Service at the time that Gray felt he must address. First, some Americans both within and outside the Marine Corps doubted senior officers' professionalism. When terrorists attacked the headquarters of the 1st Battalion, 8th Marines, of the 24th MAU in Beirut, 220 Marines died. The American people watched the damaged barracks on the news and questioned whether the mission—designated a *presence*—in Lebanon was worth the lives of 241 American servicemembers. Government commit-

²⁰ Gen Anthony C. Zinni, USMC (Ret), Oral History Transcript, 27 March 2007, Dr. Fred H. Allison, 27 March 2007 session, Marine Corps History Division, Quantico, VA, 2014, 237, hereafter Gen Anthony C. Zinni, 27 March 2007 oral history transcript.

²¹ "Interview: General A. M. Gray Commandant of the Marine Corps (Part II)," U.S. Naval Institute *Proceedings* 116, no. 5 (May 1990): 144.

²² "Maneuver Warfare," from the personal collection of Gen Alfred Gray, provided to the author 10 July 2017.

²³ Gen Anthony Zinni, USMC (Ret), Oral History Transcript, 25 June 2007 session, Dr. Fred H. Allison interviewer, Marine Corps History Division, Quantico VA, 2014, 346-49.

tees researched the cause of the tragedy. The committee organized by the secretary of defense to conduct an independent inquiry into the attack pointed out that commanders at different levels had not shared their interpretations of what presence meant; each commander had his own interpretation. The committee also concluded that the Marine Corps had failed to change its mission, although the character of the war had shifted. Some members of Congress were angry that the senior officers did not seem to take responsibility for the tragedy. The report published by the House of Representatives Armed Services Committee concluded that the MAU's defense level had not been sufficient. According to the report, the commanders in Lebanon neither provided enough defense nor revised their defense plan, even though the terrorism threat had become more serious. Senior officers who had visited Beirut were also denounced for being unaware of the need to strengthen the MAU's defense level.²⁴ Suspicions of senior commanders' capabilities arose not only outside but also from within the Corps. Some officers who commanded a company in Vietnam expressed their disappointment regarding senior officers' indifference toward tactics.25

Second, when President Ronald W. Reagan's second term began in 1985, the problem of the Marine Corps' budget potentially decreasing emerged once again. During Reagan's first term, from 1980 to 1984, the president greatly increased defense spending, advanced the Strategic Defense Initiative, and supported groups in fighting communists in the developing world. The administration aimed to force the Soviet Union to enter severe competition and become economically exhausted. In contrast, during Reagan's second term he needed to solve the financial deficit. In 1985, Congress passed the Gramm-Rudman-Hollings Balanced Budget and Emergency Deficit Control Act, which would automatically lower expenditures when

the president and Congress failed to agree on a deficit reduction plan. After the Democratic Party won the midterm elections in 1986, Congress passed a budget resolution to reduce the defense budget.

Establishment of a Warfare-Based Requirements System

On 1 July 1987, Secretary of the Navy Webb appointed Gray as the Commandant. When Reagan's second term began in 1985, having built up a military force and the economy, Reagan chose to negotiate with the Soviet Union, particularly regarding arms control issues. In March 1985, the new leader of the Soviet Union, Mikhail S. Gorbachev, who was a flexible thinker and supported democracy, was inaugurated as the general secretary of the Communist Party. At the Reykjavik Summit held in October 1986 in Iceland, both leaders talked about how to reduce nuclear forces. Under dramatically changed circumstances, the Corps began a new era. Gray took on the mission of rehabilitating his Service's warfighting capabilities.

For Gray, the relaxing of political tensions between the United States and the Soviet Union did not mean that the Marine Corps would not need to maintain its warfighting capability to as high a standard as in 1983, when U.S.-Soviet relations had reached their worst point. Rather, Gray emphasized the importance of remaining a part of the American naval expeditionary force. He explained that the Marine Corps should have been NATO's reserve as Russia developed a blue water navy that would remain a military threat for the United States and its allies. Also, Gray stressed that "it is more essential to have forces in the right place at the right time, with the right kind of capability for the right reasons."26 The Marine Corps should be prepared—as a naval expeditionary force—to make a contribution within NATO, in any situation in the Pacific, and in conflicts in Third World regions.²⁷

Gray regarded improving the Corps' brainpower as key to revamping it and gave the highest priority

²⁴ Benis M. Frank, *U.S. Marines in Lebanon*, 1982–1984 (Washington, DC: History and Museums Division, Headquarters Marine Corps, 1987).

²⁵ Gen Anthony C. Zinni, 27 March 2007 oral history transcript; and LtGen Paul K. Van Riper, USMC (Ret), interview with LtCol Sean P. Callahan, 20 February 2014, interview 1 of 3, transcript (Oral History Program, Marine Corps History Division, Quantico, VA).

²⁶ "Interview: General A. M. Gray Commandant of the Marine Corps," U.S. Naval Institute *Proceedings* 116, no. 4 (April 1990): 48.

²⁷ Alfred M. Gray, "Annual Report of the Marine Corps to Congress," *Marine Corps Gazette* 72, no. 4 (April 1988): 25.

to doing so in his first year as Commandant, as well as upgrading the training program. Gray's brainpower reform mainly involved establishing MCCDC and educational reforms. He attempted to create a home for this new brainpower by organizing MCCDC and by redesigning the Corps' educational programs so that an officer who studied at the Command and Staff College or the newly established School of Advanced Warfighting would be able to produce new warfighting ideas at MCCDC or make an independent decision as a commander at the Marine Air-Ground Task Force (MAGTF). During the summer of 1987, MCDEC studied the structure of the new command and reported on the concept underlying its organization to Gray several times. On 18 September, Gray approved of the concept submitted by the MCDEC and ordered it to form an organizational plan for MCCDC by 10 November, which he endorsed on 4 November 1987, establishing MCCDC.

Gray explained MCCDC's basic organization to all Marines in a special piece titled "Establishment of the Marine Corps Combat Development Command (MCCDC)" in the December 1987 issue of *Marine Corps Gazette*. MCCDC was established with five centers: the MAGTF Warfighting Center, the Training and Education Center, the Intelligence Center, the Wargaming and Assessment Center, and the Information Technology Center.²⁸

One of Gray's goals for establishing MCCDC was to build a requirements system to produce doctrine, education, training, equipment, and organization from a warfare perspective rather than that of policy or administration. In the 1970s and 1980s, the importance of reflecting this view was emphasized by both Marines and the critics outside the Marine Corps. For example, more than a decade earlier in 1976, Colonel R. C. Wise observed that the FMFs' engagement in MCDEC's mission was very limited. Wise outlined this concern in his study titled A Study of the Mission, Function, and Organization of the Marine Corps Development and Education Command. In his analysis,

he explicitly questioned the fact that none of the FMF commands or forces had required the MCDEC to deploy a liaison officer even though the FMFs must be considered a sole customer of MCDEC's products. He proposed deploying a liaison officer from MCDEC to each Marine Expeditionary Force commander.29 Almost 10 years later, Major C. J. Gregor argued in the Marine Corps Gazette that no organization in the Corps had identified what changes were essential for its doctrine, tactics, organization, and leadership; according to Gregor, MCDEC had been designed to identify them. However, in reality, Marine Corps Headquarters had the power to bring about these changes, while MCDEC's power to influence Headquarters was restricted. Moreover, Headquarters, which conducted a lot of daily work, was too busy to determine the requirements.30

Even before being inaugurated as Commandant, Gray was worried that it took too long to deploy newly developed equipment and training programs to Marines in the field due to bureaucratic procedures within the Corps. These concerns were clearly expressed in his All Marines Message (ALMAR) 232/87, Restructuring the Marine Corps Organization for Combat System Acquisition.

One of my principal objectives is to streamline our systems acquisition process. The current process, which has evolved over a number of years, is less responsive to the needs of the operating forces than desired, is not well suited to the streamlining initiatives occurring within the DoD [Department of Defense] and is slow to exploit emerging technology. I desire more active involvement of the operating forces in identifying deficiencies in existing systems and in defining

²⁸ Gen A. M. Gray, "Establishment of the Marine Corps Combat Development Command," *Marine Corps Gazette* 71, no. 12 (December 1987): 7-9.

²⁹ Col R. C. Wise, A Study of the Mission, Functions and Organization of the Marine Corps Development and Education Command, 1 November 1976, Studies and Reports folder, box 52, Marine Corps History Division (MCHD), Quantico, VA.

³⁰ Maj C. J. Gregor, "Our Changing Corps," *Marine Corps Gazette* 68, no. 8 (August 1984): 20–22.

new requirements. The time it takes to translate a requirement into a developmental effort must be shortened to ensure that technology advances are not encumbered by a lengthy staffing and review process. The number of entities involved in the research, development, and acquisition process must be kept to an absolute minimum to ensure that combat systems are fielded to meet the threat, and, are logistically supportable, affordable and acquired in a timely way. Finally, clear lines of authority, responsibility, and accountability must exist throughout the acquisition process.31

As a head of the MCDEC Development Center and a commander, Gray recognized that the Marine Corps had failed to deploy new equipment, such as the Light Armored Vehicle (LAV), or new training programs rapidly because of "well-established administrative procedures."32 After assuming his duties as Commandant, Gray adopted two ways to create a new mechanism to develop and deploy new doctrines, education, training, equipment, and organization reflecting the FMFs' needs as soon as possible. First, the decision-making process in peacetime to prepare for warfighting and administrative and policy missions would be separated, an approach employed by the Prussian Army. Very importantly, Gray created MCCDC to devise the Corps' future warfighting vision and capability, while limiting Headquarters' role and responsibility to administrative and policy missions. Thus, the mission to form the Corps' future vision and identify the requirements for doctrine, education, training, equipment, and organization was given not to Headquarters but to MCCDC, which would take initiative in shaping the Corps' future warfighting capabilities. Second, the FMFs, which train the Marines in peacetime, and the MAGTF, which fights in wars, were involved in the warfighting decision-making process during peacetime.

The period 1987-88 was a time of reorganization under the Corps' new requirements structure. A MCCDC transition team was established to discuss the command's role and organization in detail in fall 1987. The team defined MCCDC's commander as the FMFs' representative, responsible for improving the MAGTF's ability for operations.33 The MCCDC commander would identify the needs of the mission and the requirements for changes in the doctrine, education, training, equipment, and organization. With regard to the concepts, plans, doctrine, education and training, and organization plan, MCCDC would develop them while the Marine Corps Research, Development, and Acquisition Command (MCRDAC) would be in charge of the development and acquisition of equipment.34 Headquarters would be responsible for Marine Corps policy, joint/Service plans, resource management of fielded systems, and Corps-wide operations including bases, as well as act as staff advisor to the Commandant.35 In other words, Gray mainly channeled warfighting development functions through MCCDC, and directed administrative and policy missions toward Headquarters.

Gray's ALMAR directive to eliminate the administrative process to increase the speed of responding to the FMFs' needs followed the reorganization of Headquarters and MCDEC in both 1987 and 1988. The divisions and centers belonging to MCDEC and Headquarters were relocated to MCCDC, MCRDAC,

³¹ All Marines Message (ALMAR) 232/87, Restructuring the Marine Corps Organization for Combat Systems Acquisition, Studies and Records Reorganization: Establishment of Marine Corps Research, Development and Acquisition Command, November 1987 Studies and Reports folder, box 53, MCHD, Quantico, VA.

³² Turley, The Journey of a Warrior, 130-292.

³³ Coordinator, Warfighting Center Working Group, to Head, Marine Corps Combat Development Command Transition Team, "Enclosure (5) To Warfighting Center (WPC) Working Group Report, Glossary of Terms." Studies and Reports Reorganization: Working Group Report, December 1987 Studies and Reports folder, box 54, MCHD, Quantico, VA.

³⁴ "Enclosure (5) To Warfighting Center (WPC) Working Group Report, Glossary of Terms."

³⁵ "Memorandum for the Commandant of the Marine Corps: Activation of MCRDAC," 16 October 1987, Studies and Records Reorganization Reorganization-Stand Up of MCRDAC June-December 1987 Studies and Reports folder, box 53, MCHD, Quantico, VA.

and Headquarters based on newly defined missions and functions. The sections for research and studies, which had been dispersed throughout MCDEC and Headquarters, were combined at MCCDC, while the sections for equipment development and acquisition were placed at MCRDAC. Gray ordered the following bodies to be transferred to MCCDC: MCDEC's Doctrine Center, the Plans Division of its Development Center, its Amphibious Warfare Presentation Group, and Headquarters' Studies Branch of the Research, Development and Studies (RD&S) Department. Headquarters' Training Division was integrated into MCDEC's Education Center within MCCDC. The following were transferred to MCRDAC: other sections of MCDEC's Development Center, as well as sections of RD&S, Headquarters' Installations and Logistics Department, which was reorganized into the Acquisition Division, and Headquarters' Purchases Division.³⁶

Adoption of a Concept-Based Requirements System

The creation of MCCDC was also intended to transform the requirements system, which had been based on physical elements, into one based on concepts to produce new doctrine, education, training, equipment, and organization. Gray believed that developing and adopting new equipment without any concept tended to hinder the effective use of the defense budget.³⁷ Alternatively, it was likely to cause the development of equipment that did not meet the needs of operational forces. Furthermore, maintaining a requirements system based on physical elements meant that the Marine Corps' innovation was to some degree dependent on its present weapons and formations. When discussing the adoption of the maneuver warfare concept in

the 1980s, some officers opposed it, claiming the new concept was not appropriate for the Marine Corps formation at the time. One of the objections was that MAGTFs were organized and equipped to fight a limited, defensive response to threats, so that maneuver warfare was not suitable for the Marine Corps.³⁸ The development and adoption of a new way of war was limited by the existing equipment and organization at the time. Therefore, Gray and his reformers were convinced that it was essential to abolish the present physical element-based requirements system and design an alternative one.

Before Gray founded MCCDC, the MCDEC was not necessarily successful in developing a new warfighting concept. For example, Wise had raised the issue of the absence of an underlying concept in his research about MCDEC's structure, mission, and functions published in 1976. In the report, he revealed a concern among officers about the dominance of technology at MCDEC's Development Center. Wise explained that "the Development Center is too equipment oriented," which was a concern voiced by about half the interviewees who were or had been members of that center. In each instance, the statement was unsolicited. Further exploration revealed that most believed equipment took precedence over other all other Development Center functions, usually to the detriment of the latter and occasionally to their exclusion. Cited among the slighted functions were organization, doctrine, tactics, techniques, plans, and studies. One might logically predict the dominance of equipment by virtue of its nature when compared to other Development Center products. Equipment is tangible; doctrine is not. Weapons kill; studies do not. No one denigrated the importance of equipment, rather they decried the relative lack of importance that they perceived in other areas. Two Development Center divisions-Plans and Studies (P&S) and Organization, Doctrine, Tactics, and Techniques (ODT&T)-were singled out by interviewees as too important to the Marine Corps to be relegated to second-class status. There was no disagreement about the importance of

³⁶ ALMAR 232/87, Restructuring the Marine Corps Organization for Combat Systems Acquisition; "Meetings on CMC Reorganization/Relocation Initiatives of 17,18, and 21 September 1987," Studies and Reports Reorganization CMC Reorganization/Relocation Initiatives of 17,18, and 21 September 1987 (2d draft) October 1987 folder, Studies and Reports, box 53; "U.S. Marine Corps Organization for Combat Systems Research, Development and Acquisition, Briefing Presented to ASN (RE&S)," 22 October 1987, Studies and Reports Reorganization: Organization for Combat Systems Research Development and Acquisition: Brief, October 1987 Studies and Reports folder, box 53, all, MCHD, Quantico, VA. ³⁷ Alfred M. Gray, interview with author, 10 July 2017.

³⁸ Damian, "The Road to FMFM 1," 64–65.

P&S and ODT&T functions, yet their very presence within the Development Center permitted and even fostered relegation. That should not be.³⁹

Then, Wise offered a solution to the problem of equipment's dominance. Although it was not obvious how much Gray's reformers in the 1980s referred to Wise's study—if at all—his solution could be regarded as the origin of the concept-based requirements system. Wise suggested that the P&S Division, which had been given second-class status, should take initiative in the Marine Corps' requirements system. Wise's new requirements system consisted of five stages: 1) the Commandant provides guidance to the P&S Division; 2) the P&S Division suggests the necessary equipment, FMF structure, doctrine, tactics, techniques, and education and training; 3) the Commandant approves this package; 4) the plan is sent to the FMFs to be tested and refined; and 5) the Marine Corps introduces newly developed products.

In a paper published in 1986, Colonel Patrick G. Collins, one of Gray's close friends, recommended a more refined resolution to mitigate the heavy dependence on equipment. His paper, "Concept Paper 2-86 Combat Development Capability for the US Marine Corps," examined the Marine Corps' entire force modernization process. Collins supported Wise's observation of the Corps' deep dependence on equipment. According to him, some Marines working at MCDEC were concerned that while the Corps succeeded in creating and deploying new equipment in the 1980s, it had not fully formed training programs or doctrines to use them. He identified two reasons. First, the future warfighting concept-which developers would refer to in order to identify the Marine Corps' deficiencies and requirements-was not defined. Second, a process to build a training program, force structure, and doctrine had not been institutionalized, while one for equipment had been.40

MCCDC and its Warfighting Center were intended to work as the brain of the Marine Corps during peacetime. According to Wilkinson, the main peacetime functions of the chief of the General Staff of the German Army, supported by the Great General Staff, were "actual arrangements for particular wars," "training of officers to the art of command," and "scientific study of war as a means of forming and exercising the faculty of generalship."41 Under Gray and his reformers' design, the command element of each operational force or Marine force provided to a unified combatant commander would work for planning during operations and Headquarters would work for policy and administrative works. More importantly, MCCDC would become an intellectual spring for scientifically studying war; developing the warfare concept; training officers; and identifying the needs for changes in the doctrine, organization, and equipment during peacetime.

Collins proposed a solution to the lack of concept and absence of a system to develop training, organization, and doctrine within the Marine Corps. First, the processes for developing a concept and identifying requirements needed to be integrated. Second, a process for developing training, doctrine, and force structure needed to be shaped and accepted. Third, these three processes of development and the process of developing equipment needed to be unified. To practice the proposals, he suggested that the Development Center's P&S Division be renamed the Combat Developments Division (CDD) to devise the Corps' present and future warfighting requirements.⁴²

After Gray was inaugurated as Commandant, Wise's solution and Collins's suggestions that a research institution would outline the Corps' future warfighting requirements and that all development processes would be integrated, were rapidly realized. As already observed, Gray designated MCCDC to craft the Corps' future vision. More importantly, Gray established an institution within MCCDC to assign

³⁹ Wise, A Study of the Mission, Functions and Organization of the Marine Corps Development and Education Command.

⁴⁰ Col P. Collins, "Concept Paper 2-86 Combat Development Capability for the US Marine Corps," 31 January 1986, Studies and Reports Reorganization Concept Paper 2-86: Combat Development Capability of the US Marine Corps by Col. P. Collins, January 1986 Studies and Reports folder, box 52, MCHD, Quantico, VA.

⁴¹ Spenser Wilkinson, *The Brain of an Army: A Popular Account of the German General Staff* (Westminster, UK: Archibald Constable, 1895), 139.

⁴² Collins, "Concept Paper 2-86 Combat Development Capability for the US Marine Corps."

integrated intellectual tasks. Gray's vision was to create an intellectual spring by combining intellectual functions (e.g., studying, developing new ideas, and assessing and identifying requirements based on newly developed notions) into one institution.

The MCDEC Organizational Study, published in August 1987, recommended forming a new institution called the Warfighting Development Center, which was renamed the MAGTF Warfighting Center, briefly demonstrating its responsibility for "operational concepts, studies, requirements, and doctrine" and for publishing warfighting booklets and doctrines.⁴³ In September 1987, Gray ordered the Warfighting Center to play a central role in the Marine Corps' longterm and midterm planning.44 By assigning this duty to the Warfighting Center instead of the Development Center, he intended to shift the requirements system from being focused on equipment to concepts. The Warfighting Center's mission was illustrated in greater detail in a report submitted by the coordinator of the Warfighting Center's working group to the head of the MCCDC transition team. The paper states that the Warfighting Center's mission would be to support the MAGTF; to develop concepts, plans, and doctrine; to identify and assess the need for changes; and to participate in the creation of joint and combined doctrines. In addition, like the Prussian and German general staffs, which had stressed the importance of the scientific study of war based on military history, Gray introduced historical research to support the formation and evaluation of concepts, plans, and doctrine. The Warfighting Center would also be responsible for monitoring the progress of MCRDAC.⁴⁵ The Warfighting Center's organizational plan was mapped out and approved by Gray on 9 March 1988. In 1988, the MAGTF Warfighting Center consisted of the Doctrine Development Branch, the MAGTF Proponency and Requirements (P&R) Branch, the Concepts and Plans Branch, the Assessment/Studies and Analysis Branch, the Special Operations/Low Intensity Conflict Branch, and the Support Branch. The Historical Section was organized into the Assessment/Studies and Analysis Branch. Dr. Victor K. Fleming, one of the first civilian scholars with a doctorate hired by MCCDC, was transferred to this section from the Headquarters History and Museums Division.⁴⁶

In addition to creating the MAGTF Warfighting Center, Gray and his reformers adopted a process through which the center could identify the Marine Corps' future requirements based on concepts instead of equipment. Prior to Gray's appointment as Commandant, Colonel Zinni at Headquarters and Lieutenant Colonel Wilson at MCDEC's Development Center had already begun to shape the process.⁴⁷ To build it, Gray's reformers attempted to strictly define each concept. They called their product the "concept based requirements system" and defined it as a "process for determining MC [Marine Corps] future warfighting requirements through development and analysis of operational concepts."48 In addition to being grounded in concepts, the new requirements system was future-oriented. First, the Commandant's intentions for the Corps' future would be described in a document called the Marine Corps Campaign Plan. Gray's view of an operational concept to employ the MAGTF would then be presented in the Marine Corps Long-Range Plan, 2000-2020. In the next step, the MAGTF Warfighting Center would launch a mission area analysis to investigate the Corps' existing capability to reveal the lack of doctrine, training, education, force structure, and

⁴³ MCDEC Organizational Study, August 1987, Studies and Reports Reorganization MCDEC Organizational Study August 1987, w/Change 1, August 1987 Studies and Reports folder, box 53, MCHD, Quantico, VA. ⁴⁴ Meetings on CMC Reorganization/Relocation Initiatives of 17,18, and 21 September 1987, Studies and Reports Reorganization CMC Reorganization/Relocation Initiatives of 17,18, and 21 September 1987 (second draft), October 1987 Studies and Reports folder, box 53, MCHD, Quantico, VA.

⁴⁵ Coordinator, Warfighting Center Working Group to Head, Marine Corps Combat Development Command Transition Team, "Warfighting Center (WFC) Working Group Report," 11 December 1987, Studies and Reports Reorganization: Working Group Report, December 1987 Studies and Reports folder, box 54, MCHD, Quantico, VA.

⁴⁶ Command Chronology, Command Chronology MCCDC, Warfighting Center 1988 folder, Marine Corps Education and Development Command, box 447, MCHD, Quantico, VA.

⁴⁷ Collins, "Concept Paper 2-86 Combat Development Capability for the US Marine Corps."

⁴⁸ "MCDEC Reorganization," Studies and Reports Reorganization MCDEC Reorganization-Status Brief, ACMC Committee, October 1987 Studies and Reports folder, box 53, MCHD, Quantico, VA.

equipment to achieve the future plan illustrated in the *Marine Corps Campaign Plan*. The identified lack would be incorporated into the *Marine Corps Midterm Operational Plan*. The MAGTF Warfighting Center would modify the doctrine, training, force structure, and materials to eliminate the shortage in the *Marine Air-Ground Task Force Master Plan*, 1992–2002. Finally, the requirements for these elements would be published.⁴⁹

Gray assigned Colonel Wyly to the MAGTF Warfighting Center. As mentioned earlier, Wyly was an unconventional Marine officer in the 1970s and 1980s. Like the extremely creative, imaginative, and logical Major General J. F. C. Fuller of the British Army in the beginning of the twentieth century, Wyly was very intellectual and focused on reforming warfighting capabilities. After commanding a company in Vietnam and receiving directions from Bernard E. Trainor, director of MCDEC's Education Center, to redesign tactical instruction at AWS, Wyly developed a new education package based on maneuver warfare in 1979. While commanding his company in Vietnam, he questioned the effectiveness of the Marine Corps' existing manuals. Since the manuals were mainly about detailed procedures, it took time for Marines to deal with rapidly changing problems on the battlefield.⁵⁰ This was a fatal flaw on the battlefields of Vietnam, where the Marine Corps' enemy was very light and flexible. Wyly believed that on a battlefield, a Marine commander should make judgements independently. After returning to the United States, he examined how commanders could make judgments independently by comparing the amphibious operation of Germany in World War I and the Marines in World War II in his master's thesis at George Washington University. The thesis, "Landing Force Tactics: The History of the German Army's Experience in the Baltic Compared to the American Marines in the Pacific," identified the difference between Germans' and Americans' purposes and ways. The German Army's

Some of Wyly's ideas were reflected in the first official Marine Corps Campaign Plan, while others were not. Both documents, "Proposal for 1990 Marine Corps Campaign Plan" and the first official Marine Corps Campaign Plan, demonstrated the future vision of the Marine Corps' personnel policy, training, education, doctrine, and organization. It is useful to outline the recommendations in not only the official Marine Corps Campaign Plan, but also in Wyly's draft, because in some subjects, Gray's directives and personal beliefs have much more in common with Wyly's suggestions in the proposal than in the official plan.

Wyly's fundamental assumption was to rebuild the Corps' personnel policy, training, education, and organization, which was consistent with the new warfighting doctrine of maneuver warfare. Regarding personnel policy, Wyly proposed extending the length of a tour to maintain unit cohesion. Moreover, Wyly thought the number of officers above the company grade should be decreased to avoid creating jobs not relevant to warfighting, and to solve the problem of over-

aim was to destroy an enemy's will, while the U.S. Marine Corps' objective was to take a bridgehead. For their purposes, the German Army focused their efforts on the enemy's gaps, identified by a reconnaissance force. Meanwhile, the Marines focused on fires and moving forward in lines.⁵¹ At AWS, Wyly encouraged young captains to make independent judgments by using conceptual frameworks such as surfaces and gaps, mission tactics, the main effort, objective, and reserve.⁵² Gray assigned Wyly to the Concepts and Plans Branch of the MAGTF Warfighting Center in 1989, where he began to write the draft of the Marine Corps Campaign Plan in "Proposal for 1990 Marine Corps Campaign Plan." Although there had been vigorous objections to the draft, especially from the director of the MAGTF Warfighting Center, the first Marine Corps Campaign Plan with Gray's signature was published.53

⁴⁹ "Warfighting Center (WFC) Working Group Report"; and "Marine Corps Campaign Plan (MCCP)," Turley/Gray Marine Corps Campaign Plan (MCCP) 9 folder, Gerald R. Turley/Alfred M. Gray Research Collection, box 14, MCHD, Quantico, VA.

⁵⁰ Damian, "The Road to FMFM 1," 73-75.

⁵¹ Michael D. Wyly, "Landing Force Tactics: The History of the German Army's Experience in the Baltic Compared to the American Marines in the Pacific" (master's thesis, George Washington University, 1983).

⁵² William S. Lind, *Maneuver Warfare Handbook* (Boulder, CO: Westview Press, 1985), 71-133.

⁵⁹ Michael D. Wyly, unpublished memoir, "Country and Corps: One Marine's Struggle to Serve Them Both and The Choice He Made," 351-420.

centralization. In terms of promotions, Marines should be evaluated by two traits: strength of character and warfighting competence. In addition, Wyly drew particular attention to the problem of careerism for the Marine Corps. Careerism should be eliminated because for Wyly it could hinder a Marine from being a leader. He observed that "whether careerism is driven by a quest for power, a need for money, a search for a stepping stone on the road to success, envy of someone else, jealousy, a wish for an easy life, or any other motivation, the result is the same. People can sense when they are being taken advantage of and they resent it. Perhaps Marines feel the resentment more sharply," he suggested, pointing out that "we joined to serve our country, not to serve some prima donna who is in it for himself."54 He continued to show his serious concern that careerism "takes moral courage to question a senior's opinion and state one's own; to report bad news; to make tough judgments about subordinates; and to do many of the other things military effectiveness demands."55

For training, Wyly emphasized the importance of increasing speed. He states, "Speed is critically important when a unit is required to change from one maneuver to another. For instance, changing direction, shifting from defense to offense and back again, moving out on short notice, responding to sudden enemy action, all these things and many others are crucial tests of a unit's preparedness for war, all measured from the standpoint of speed. Speed is of the essence in requiring and delivering fire support."56 Wyly also claimed that unit training should largely consist of force-on-force free-play training (in which each unit fights unscripted, without a detailed scenario to follow) to stimulate a Marine to take initiative, and exploit their imagination, and to increase speed of the training. Education should be shifted from focusing on teaching military knowledge to military judgment because, in maneuver warfare, a commander is required to make independent decisions in times of uncertainty. Also, Marine doctrine based on maneuver warfare would be divided into the following subjects: warfighting, tactics, operational art, strategy, organizing for war, amphibious operations, and aviation.⁵⁷

To what extent did Wyly's recommendations exert an influence on Gray's practice of the conceptbased requirements system? His overall direct impact on the official Marine Corps Campaign Plan was limited. Wyly's idea is more closely reflected in the official plan's education section, however. Gray shared Wyly's belief that the focus of the Marine Corps' military education needed to change from knowledge to judgment. In a document titled "Training and Education" sent to the commanding general of MCCDC, Gray stressed that "my intent in PME [professional military education] is to teach military judgment rather than knowledge."58 Gray affirmed that although knowledge is surely important, it should be taught in the context of teaching military judgment, not as material to be memorized and regurgitated. Although the official Marine Corps Campaign Plan does not assert that the main effort of the Corps' PME would be changed from knowledge to judgment, it does state that "the intent of PME is to teach military judgment in addition to providing knowledge."59

Wyly's influence on other sections of the *Marine Corps Campaign Plan* was more restricted. While the section on personnel encouraged a three-year tour to create unit cohesion, as Wyly advocated, his other recommendations—to decrease the number of officers, to eliminate careerism (which regards being promoted as more important than anything else), and to evaluate Marines by their strength of character and warfighting ability—were not adopted. In contrast, the official plan refers to the importance of a Marine's quality of life. The significance of force-on-force training is not mentioned in the training section of the official plan. It only refers to the need to develop realistic train-

⁵⁴ Michael D. Wyly, "Proposal for 1990 Marine Corps Campaign Plan," 10, provided to the author by Dr. Bruce Gudmundsson.

⁵⁵ Wyly, "Proposal for 1990 Marine Corps Campaign Plan," 11.

⁵⁶ Wyly, "Proposal for 1990 Marine Corps Campaign Plan," 18, 19.

⁵⁷ Wyly, "Proposal for 1990 Marine Corps Campaign Plan," 33.

⁵⁸ Commandant of the Marine Corps to Commanding General, Marine Corps Combat Development Command, "Training and Education," 18 October 1988, Command and Staff College Curriculum Revision 1988 folder, Command and Staff College December 1989–1990, box 12, MCHD, Quantico, VA.

⁵⁹ "Marine Corps Campaign Plan (MCCP)."

ing standards. In the doctrine section, the official plan suggests publishing specific area doctrines, such as MAGTF, combat support, aviation, and nuclear biological chemical.⁶⁰

More importantly, the official plan did not adopt Wyly's fundamental belief that the Marine Corps should be rebuilt in line with the new warfighting concept for maneuver warfare. The Marine Corps Campaign Plan consists of proposals in distinct fields (e.g., warfighting, doctrine, organization, planning, acquisition, personnel, training, education, legislative affairs, and public affairs), without any fundamental assumption on which the proposals would be based. Rather, his belief was partially reflected in proposals in each field.

However, some of Wyly's ideas, which did not become part of the final plan, were shared or were practiced by Gray. For example, in an interview in the U.S. Naval Institute Proceedings in 1990, Gray stressed the need to eliminate unhealthy careerism because no matter how careerism was driven, the outcome would be resentment from others. He stated that "no matter if careerism is driven by a desire for power, a need for money, a search for a stepping stone to success, envy of someone else, a wish for an easy life, or any other selfish motivation, the result is the same. Sooner or later, people sense that they are being taken advantage of and they resent it."61 He required Marines to make it a priority to serve their country, rather than themselves. Marines "joined to serve our country, not to serve some prima donna who is looking out for number one," he said.⁶² Although being ambitious is a human being's natural characteristics to some extent, if a Marine put the most important consideration on being promoted or obtaining the next career after retirement, he or she would not be able to concentrate on tactics or operational art as a leader. Moreover, the doctrines of Campaigning (FMFM 1-1), which focuses on the operational level of war, and *Tactics* (FMFM 1-3), which centers on the tactical level of war, were published in 1990 and 1991, respectively, as Wyly had suggested.

Conclusion

The establishment of MCCDC yielded not only the creation of a new organization, but also a crucial change in how the Marine Corps would prepare for future war. Gray believed that to engage in maneuver warfare, it was necessary to strengthen the Marine Corps' brainpower and he reformed its brainpower by establishing MCCDC and developing new educational programs for officers. Gray's predecessors were also innovative leaders. However, only Gray and his close friends clearly understood that one of the Corps' most serious problems in the post-Vietnam War era was its requirements system; in other words, the Corps' method of changing doctrine, education, training, equipment, and organization. The influence of the administrative perspective on the Corps' requirements system was much stronger than that of the warfare perspective. Sometimes, the speed of the development and the deployment of new weapons was too slow due to a complicated administrative process. Furthermore, the requirements process involved too much technology, while the new maneuver warfare concept was officially undeveloped. As a result, combined arms exercise at Twentynine Palms, based on the concept of attrition warfare, had been implemented.

Gray and his reformers produced a new requirements system, which was designed as warfare-based, concept-based, and future-oriented. Gray created MCCDC to take the initiative in the fundamentally changed new requirements system and in the preparation for warfighting during peacetime. To increase the influence of the warfare perspective on this process and to mitigate the influence of the administrative angle, Gray aimed to create a vision for future warfare and identify the needs of doctrine, education, training, equipment, and organization at MCCDC rather than Headquarters. To carry out this goal, the research and studies sections, which had been separated into MCDEC and Headquarters, were integrated into

⁶⁰ MAGTF Warfighting Center, "Marine Corps Campaign Plan (MCCP)," 20.

⁶¹ "Interview: General A. M. Gray Commandant of the Marine Corps (Part II)," 150.

⁶² "Interview: General A. M. Gray Commandant of the Marine Corps (Part II)," 150.

MCCDC. Furthermore, the commander of MCCDC was defined as the FMFs' representative to involve the FMFs in the requirements process.

The concept-based requirements system Gray implemented had been already outlined by some colonels such as Wise, Collins, and Zinni before Gray was appointed Commandant. At MCCDC, the MAGTF Warfighting Center—the intellectual spring—was established. MCCDC created new warfighting concepts and initiated the requirements process, while the MAGTF Warfighting Center was responsible for shaping future plans and developing concepts and doctrine based on studying military history. The futureoriented and concept-based requirements process was designed as follows: the Commandant's intent for the Corps' future vision would be presented in the Marine Corps Campaign Plan; then, the requirements would be identified based on the plan. The first Marine Corps Campaign Plan was published in Gray's era. Tasking MCCDC with the role of identifying the needs of doctrine, education, training, equipment, and organization and introducing the concept-based requirements system provided the Marine Corps the potential to prepare for warfare based on new approaches such as maneuver warfare, as Gray intended.

Much of the success in establishing MCCDC as the brain of the Marine Corps originated in both Gray's strong leadership and the historically unknown colonels' intellectual efforts. Prior to Gray's tenure as 29th Commandant, different colonels had analyzed the problems of the existing requirements system and designed an alternative relevant to a warfighting organization. The new design was a result of their analysis and proposals. Wise discovered that the FMFs' influence on the present requirements system was very limited. Wise and Collins also raised the issue of excessive dependence on technology and lack of concept within the Corps' requirements process. To solve these problems, they proposed that a division of MCDEC, which had been in charge of studying concepts, should take initiative in the requirements process. Zinni described the process of how this division would lead the development of new doctrine, education, training, equipment, and organization. Wyly wrote a draft of the first Marine Corps Campaign Plan. Although Gray's strong leadership was certainly important to practicing warfare-based, concept-based, and future-oriented requirements system, it would have been insufficient without the ideas and proposals of these other leaders.

The introduction of the warfare-based, conceptbased, and future-oriented requirements system highlights the difficulty of reforming military force. Wyly's attempt to introduce a future plan that was completely consistent with the maneuver warfare concept did not succeed in its entirety. Some of his ideas were introduced in the official Marine Corps Campaign Plan, but some others were not. Even though Gray and Wyly shared the belief that careerism should be eliminated and that doctrine regarding each strategic, operational, and tactical level should be published, these suggestions were not supported by the organizational hierarchy between the Commandant and the head of the concept branch of the MAGTF Warfighting Center, the MCCDC. Gray exploited alternative ways to demonstrate his ideas to Marines, such as highlighting the importance of eliminating careerism in his interview issued in Proceedings, and publishing Campaigning (FMFM 1-1) and Tactics (FMFM 1-3).

Although Gray and his reformers did not bring to fruition their new requirements system, their efforts represented a significant beginning for the new system. Gray's efforts were succeeded by the 31st and 32d Commandants, Krulak and Jones. Future research should examine if the Corps' doctrine, education, training, equipment, and organization have been developed based on warfighting ideas created by the MAGTF Warfighting Center, or not. How has the study of military history supported the development of new warfighting concepts? Ton de Munnik claims that "military history provides a realistic notion of battle dynamics," but the notion is about the past. 63 In contrast, operations research does this with the image of present and future equipment, but conducted in an artificial environment manipulated by its players. How have the advantages and disadvantages of each

⁶³ Col Ton de Munnik, "Teaching War," in *The Oxford Handbook of War*, ed. Yves Boyer and Julian Lindley-French (Oxford, UK: Oxford University Press, 2012), 463.

military history vignette or wargame been discussed in the Marine Corps? Did the Marine Corps in the 1990s prepare its doctrine, education, organization, and equipment based on the intellectual and warfare or an administrative and policy perspective, and on concept or technology and organization? How is it done today? How was MCCDC transformed during the 1990s and 2000s? Is there any difference in characteristics between the Marine Corps' requirements system during wartime and during peacetime? Examining these questions would increase our knowledge of how a military force prepares for future warfare.

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