“We can only know who we are by being certain of who we have been.”

Gen Leonard F. Chapman Jr.
24th Commandant of the Marine Corps

TABLE OF CONTENTS

Memorandum from the Director: A Developmental Corps History
Dr. Charles P. Neimeyer .......................................................... 3

History Division Summer Intern Program ........................................ 4

Feature: Three Decades of Marine Corps Developmental History
LtCol Jeffrey R. Riley ............................................................. 5

National Museum of the Marine Corps: Innovation and Experimentation: The King Armored Car
Beth L. Crumley ................................................................. 9

The Harrier AV-8A: The Corps’ First Vertical/Short Takeoff Landing Aircraft
Julie H. Robert ........................................................................ 11

From the Sea: Amphibious Tracked Vehicles in the Marine Corps
Col Charles A. Jones and Ryan P. McDonough ................................. 12

From the Chief Historian: Navy Nurse Corps Celebrates 100 Years of Supporting the Fleet
Charles D. Melson .................................................................... 14

Field History: Marine Forces Europe
Col Stephen S. Evans .................................................................. 15

Field History: Norway’s Center of Excellence for Cold Weather Operations
Col Stephen S. Evans .................................................................. 18

Field History: An Enduring Ally in Africa: Marines in Morocco
Maj Valerie A. Jackson ................................................................ 21

Marine Corps Chronology: 4th Marine Brigade in World War I
Kara R. Newcomer ..................................................................... 23

Book Review: New Words for an Old Tune
Charles D. Melson ..................................................................... 26

Lieutenant Colonel Harold W. Bauer Inducted into the U.S. Naval Aviation Hall of Honor
CWO-3 Timothy S. McWilliams .................................................. 27

In Memoriam: Passing of Major General Looney, Brigadier General Leach, Brigadier General Henderson, and Private First Class Lucas
Robert V. Aquilina ...................................................................... 29

Marine Corps University Press: Marine Corps University Press is Launched ............................. 31

Cover: This oil painting by Sgt Charles Grow portrays the 2d AAV Battalion returning to Onslow Beach, Camp Lejeune, NC, after participating in Operation UNITAS on the 8th of December, 1988.

Editor’s Note:
1. From issue Vol. 32, No. 2, p. 14, The Marines and Camp Rapidan: The President’s Own United States Marine Corps Band should be The President’s Own United States Marine Band.
2. From issue Vol. 33 No. 3, p. 3, Memorandum from the Director: Louis B. “Chesty” Puller should be Lewis B. “Chesty” Puller.

This bulletin of the Marine Corps historical program is published for Marines, at the rate of one copy for every nine on active duty, to provide education and training in the uses of military and Marine Corps history. Other interested readers may purchase single copies or four-issue subscriptions from the Superintendent of Documents, U.S. Government Printing Office. The appropriate order form appears in this issue.
In the mid-'90s and soon after the collapse of the Soviet Union, there was considerable discussion in Washington over the various roles and missions that each of the armed services would embrace in the new post-Cold War era. After years of record defense spending, there was talk of a “peace dividend” and serious thought was given to a possible reduction of forces necessary for this new unipolar era. Accordingly, Congress directed that the Defense of Department (DoD) take a new look at the military services and established the Commission on the Roles and Missions of the Armed Forces. The commission recommended among other things that the “terms of the national roles and missions debate” focus on the needs of the warfighting commanders-in-chief instead of the capabilities of each individual service. So just about everything was on the table. Nearly simultaneously, congressional pressure to reduce defense spending required DoD to conduct a “bottom up review” in order to identify redundancies and any further reductions that might be achieved. And if this were not enough, at the same time the Navy and Marine Corps leadership announced a new “littoral” centric maritime strategy called From the Sea, From the Sea and its follow-on strategy, Forward From the Sea, squarely placed the Navy/Marine Corps team at the center of future expeditionary operations.

This issue of Fortitudine focuses on the developmental history of the Marine Corps. To many, the term “developmental” is about equipment and gear. This is only partly true. While developmental history can indeed be about the evolution of “things,” like the armored amphibious vehicles of World War II or the embrace of vertical/short takeoff and landing technology in the early 1970s, it can apply to institutional development as well. In sum, developmental history is often a story of “how we got from there to here.”

Nonetheless, when viewed over time, national debates over service roles and missions seem to follow a cyclical pattern. In a little-known provision of the 2008 National Defense Authorization Act, DoD was once again tasked to review its basic service “roles and missions.” And surely the Marine Corps will—once again—have to defend its place and role in the national security structure.

It is perhaps a good thing to recall past attempts to change, modify, or do away with the Marine Corps as an institution. The history of these attempts is fairly well documented and wonderfully described in an article published in the June 1954 edition of U.S. Naval Institute Proceedings by Colonel Robert D. Heinl Jr. titled “The Cat with More Than Nine Lives.” Colonel Heinl described in rich detail a number of earlier roles and “missions scraps” (although they were not called as such at the time). He observed that these things seemed to come along every 10 to 20 years. Prior to 1954, Heinl listed at least 11 attempts by Washington politicians and policy makers to greatly reduce or destroy the Marine Corps. He noted that initially, from 1798 to the 1880s, the Marine Corps’ mission of providing mostly ship’s detachments and naval security forces afloat and ashore remained essentially unchanged.

However, by the 1890s, as the United States began to emerge as a world power with worldwide responsibilities, there were many who believed that the Marine Corps had become functionally obsolete. Leading naval thinkers and even President Theodore Roosevelt were convinced that the Marines had no place on board Navy ships and were essentially superfluous to the large fleet operations envisioned by the eminent naval strategist Alfred Thayer Mahan. However, following lessons learned during the short but violent Spanish-American War, Mahan had a change of heart and wrote that “in the future, the Marine Corps must constitute ... the backbone to any force landing on [an] enemy coast.” What the prescient Mahan was arguing for was a much more robust Fleet Marine Force able to assist the U.S. Navy in a naval campaign where landings would be both required and desired. By the mid-1930s, a series of remarkable Marine Commandants, most notably John A. Lejeune, Wendell C. Neville, Ben H. Fuller, and John H. Russell, had made Mahan’s vision a reality.

Following World War II, the United States reevaluated how it was going to provide future national security. The National Security Act of 1947 created the Department of Defense with its own cabinet-level secretary and an independent Air Force to name just a few innovations of this watershed law. However, for the Marine Corps, the immediate postwar years were probably the most difficult ever experienced. While the three larger services had natural roles in their respective realms of land, sea, and air warfare, the much smaller Marine Corps was left in a more ambiguous position. In fact, at the time, there were many who were convinced that atomic weapons and strategic air power had made land forces obsolete. But after a series of bruising bureaucratic fights for survival waged by Marine Commandants Alexander A. Vandegrift and Clifton B. Cates, the Douglas-Mansfield Act of 1952 gave the Marine Corps a stable force struc-
ture of three active divisions and three air wings and has lasted to the present day. The Douglas-Mansfield law also envisioned the Marine Corps being used “to conduct such land operations as may be essential to a naval campaign.” What this meant was that Congress desired a general purpose and ready standing force able to conduct naval expeditionary operations from the sea on a moment’s notice.

Once again during the 1990s Commission review, there were many within the Defense establishment who continued to misunderstand the cross-functional nature of the Marine Corps. Some believed that the Marine Corps should solely focus on its amphibious mission and eschew all others. Others thought that the Marine Corps was a redundant land army. However, Marine Commandant General Carl E. Mundy Jr. forcefully argued that being the nation’s amphibious experts was just one of the Corps specialties. In a 1993 speech before the Heritage Foundation, General Mundy noted that the Marine Corps is “roled” to cut across the land, sea, and air spectrums of warfare—“in other words, to conduct land operations, but to do them from our bases at sea. Since this role logically carries us ashore to open the littoral door if land warfare is to be waged, our role assigns us also the responsibility to conduct sustained combat operations alongside the Army in a joint environment.” It was hard for anyone on the commission to deny the searing logic of General Mundy’s argument.

And so with the passage of the 2008 National Defense Authorization Act, the past has become prologue. It is probably a good thing that we, as a nation, periodically conduct these sorts of reviews. But it is also important to remember our institutional and developmental history for just these occasions. As General Mundy stated in his 1993 speech, the Marine Corps is a defense “bargain.” For about five percent of the defense budget (at the time), he noted that the Corps provided “12 percent of active Armed Forces personnel; 20 percent of active divisions; 13 percent of all tactical aviation assets; and 14 percent of reserve division requirements.” He further predicted that “Marines are going to be used more and more frequently, for diverse and challenging tasks—from major regional contingencies to peacekeeping to deterrence to everything in between. We will continue to provide what some have termed the most general purpose of the general purpose forces with strategic agility, on-scene presence, self-sustaining, and high flexibility, for a variety of crisis response demands.” Recent history has certainly proven this out. General Mundy firmly believed then, as has every Commandant since his time, that Marines are more relevant now than ever before. It is good to occasionally remind ourselves of how we got from there to here.

The History Division had 12 interns working during the summer of 2008. The interns, with a can-do attitude, helped out every History Division branch, including the Directorate, Editing and Design, Oral History, Reference, and Histories. The photo above was taken at the MCU Press launch ceremony. The History Division extends well-deserved kudos to all of the interns of 2008.
The history of the Marine Corps in the 20th century includes engagements such as Belleau Wood, Tarawa, Iwo Jima, Chosin Reservoir, Inchon, Khe Sanh, and the liberation of Kuwait. In each of these, Marines proved to be tough, versatile warriors—“first to fight” in any clime and place. They displayed innovative thinking, a remarkable ability to adapt to new technology on the modern battlefield, and the flexibility and global reach of expeditionary forces. But when the guns fell silent, the lingering question that has haunted Marines since 1775 inevitably came to the forefront: Does America really need a Marine Corps? The developmental history of the Corps has been driven by this ongoing need to justify its existence.

The Marine Corps’ pioneering work in amphibious landing doctrine, equipment, and tactics throughout the 1920s and 1930s was validated at the operational and strategic levels in World War II by Allied forces in both the European and Pacific theaters. The invention of specialized landing craft and the innovation of the amphibious tractor—the landing vehicle tracked—gave naval forces the ability to quickly move men and equipment ashore, rapidly build up combat power, and assault enemy objectives. Despite this enormous success, shortly after World War II, many predicted the demise of amphibious warfare. Its resurrection came in the Korean War, most dramatically at Inchon, one of the greatest operational maneuvers in military history. This conflict opened another era of innovation as the Corps began to adapt the combat use of helicopters in September 1951 for vertical movement of men, equipment, and supplies. This was only three years after the Marine Corps received its first helicopters and published Employment of Helicopters (Tentative). Once again, the Marine Corps adapted new technology to...
Fortitudine, Vol. 33, No. 4, 2008

combat operations, “wrote the book” on its employment, and began to use it in battle. The Corps continued to prove its value throughout the 1950s with notable operations in the Middle East and the Caribbean, but the fight for survival was always on the radar screen.

In the early 1960s, the growing crisis in Vietnam ensured that the Marine Corps continued to exist for at least the short term. On Easter 1962, Medium Helicopter Squadron 362 airlifted Vietnamese Army troops into battle becoming the first Marine unit involved in combat operations. Three years later, 9th Marine Expeditionary Brigade landed at Da Nang and initiated Marine ground operations in Vietnam. The updated version of the amphibious tractor, the landing vehicle tracked personnel, led the amphibious landing and was to play a role in Vietnam, although primarily for overland movement. While the Corps carried out approximately 80 tactical amphibious landings during the war, of greater importance was the greatly expanded use of vertical assault. The Marine Corps proved its mettle in battle but was primarily a counterinsurgency force operating much like a second land army. By the time the last major Marine ground unit, the 3rd Marine Amphibious Brigade, left Vietnam in June 1971, the Corps had lost much of its expertise in amphibious warfare, and its relationship with the U.S. Navy, so vital for successful amphibious operations, was stagnant. Compounding this, the Navy’s amphibious lift capability had withered, the defense budget had started a decline that would last through the late 1970s, and the Nixon Doctrine had reoriented U.S. defense posture to mainland Europe to meet the growing Soviet threat.

The Corps once again found itself on familiar ground, fighting to validate amphibious warfare and its role within the U.S. defense establishment. Commandant Robert E. Cushman Jr., taking over in January 1972, succinctly declared that “we are pulling our heads out of the jungle and getting back into the amphibious business . . . We are redirecting our attention seaward and re-emphasizing our partnership with the Navy and our shared concern in the maritime aspects of our strategy.” The Marine Corps Development and Education Command at Quantico, Virginia, much like its predecessors in the late 1920s and ’30s, began a series of detailed studies on how the Corps could conduct amphibious operations in the face of geopolitical and technological trends. These studies continued throughout the latter half of the 20th century and included Concept for the Organization and Employment of the FMF in the Immediate Post-RVN Period, the Sea-Based Logistic Concept; and Amphibious Operations 1985–2000: A Conceptual Study. These efforts constituted a top-to-bottom review of every fundamental aspect of amphibious operations, everything from vertical lift and vertical assault, surface assault, fire support, targeting, communications, and logistics. The Development and Education Command developed an overarching mid-term plan for the latter part of the decade called MARCORPS-77 and a longer-term plan for the 1980s entitled MARCORPS-85. What was emerging from these studies was (1) the need to base the entire assault force and logistics at sea instead of on the beach, and (2) the need for rapid vertical and surface assault from the sea base directly to the objective without the traditional buildup of combat power at the beachhead. This approach would require a mix of visionary thinking and technological adaptation.

As Marine Corps units were still fighting a counterinsurgency in Vietnam in mid-1971 and in the midst of Development and Education Command’s voluminous studies and reports, the first squadron of AV-8A Harrier vertical/short takeoff and landing aircraft was being delivered to Marine aviators. The new Harriers did not have to rely on precious carrier deckspace at sea, and ashore, they could refuel and rearm at expeditionary airfields alongside the new AH-1J Sea Cobra attack helicopters. However, this was only the beginning. vertical/short takeoff and landing technology was to be of prime importance to the Marine Corps’ plans for future amphibious assaults. While the technology was still in its infancy, the Corps envisioned larger vertical/short takeoff and landing transport aircraft speeding troops and material from ships to objectives far inland, thus increasing the reach of expeditionary forces.

Of great concern to Development and Education Command were the emerging trends of the modern battlefield as well as the U.S. orientation back to mechanized warfare on the European mainland, a battle for which the Marine Corps was not equipped. The 1973 Yom Kippur War dramatically illustrated the lethality of modern high-tech weapons systems and the increasing speed of battle. Studied closely by the Army and Marine Corps, this conflict was to validate many of the assumptions held by the two services and accelerate their efforts to adapt their doctrine and weapons systems. For the Army, the result was FM 100-5 Operations, published in 1976, and further refined in 1982, and culminating in the airland battle doctrine. This was to be the Army’s answer to blunting a massive Soviet attack into Western Europe. It envisioned mechanized and armored forces integrated with air power and supported by a sophisticated sensor and communications network to achieve qualitative superiority over numerically superior Warsaw Pact forces. The Marine Corps’ role in this would be small. While it had perfected combined arms, the relative lack of armor and artillery compared to heavy Army divisions meant it would play no major role on the mainland. Nevertheless, the Marine Corps did feel it could contribute in Europe through amphibious landings and attacks into the flanks of advancing Soviet forces along the northern and southern peripheries of the European mainland.

Marines at the Development and Education Command continued to distill their ideas on amphibious warfare on the modern battlefield, emphasizing the need for smaller units maneuvering very rapidly from the sea with precision naval gunfire and air support, and linked by a sophisticated command and control network. They were assisted by an unlikely source, an Air Force fighter pilot named Colonel John Boyd. Starting in the late 1970s, Boyd
began adapting his theories on air-to-air fighter combat to military operations in general. His theory asserted that each side in a conflict was in a continuous “Observe-Orient-Decide-Act” (OODA) loop. Whichever side could complete this loop faster had a decided advantage. While Boyd received just recognition for his thinking and popularizing of this concept, it was not necessarily new to the Corps. A Development and Education Command study titled the Marine Search and Attack Battalion Study predated Boyd’s OODA loop when it asserted that all ground operations could be characterized by a “sense-evaluate-decide-act” sequence. By the end of the 1970s, the term “maneuver warfare” had entered the lexicon and was being hotly debated in the pages of the Marine Corps Gazette. With this deep thinking behind it, the Corps began to emerge from Vietnam, to reaffirm the importance of amphibious warfare, and to adapt itself to the modern battlefield.

The 1980s were a watershed for all the armed forces and the Department of Defense. President Ronald Reagan’s inauguration in 1981 ushered in a decade of increased defense budgets, a reinvigoration in the defense of NATO and U.S. interests, and a desire to challenge Soviet Communism directly. However, the decade started out tragically. Operation Eagle Claw, the attempt to rescue the Iranian hostages, was aborted after the disaster at Desert One in April 1980. While the services were making great individual strides both doctrinally and technologically, their ability to conduct joint operations was woefully inadequate. In the mid-1980s, the Goldwater-Nichols Act and Joint Acquisition Reform forced the services to start working together more closely in the area of weapons systems development and doctrine, tactics, techniques, and procedures. Doctrinally, the Army and Marine Corps shared some common ground. The Army’s AirLand Battle Doctrine, first published in the early 1980s, traces its roots back to the 1970s work of Generals Donn A. Starry and William E. DePuy at the Army’s Training and Doctrine Command. The Marine Corps codified its work from the same turn of the decade, however, the antagonist that had driven the development of the Marine Corps since Vietnam disappeared.

The only chance to operate on the modern battlefield and to execute maneuver warfare as originally envisioned in the 1970s came in 1990–91 during Desert Shield/Desert Storm. The Corps was a well-equipped, qualitatively superior, combined arms team that was operating in a joint and coalition environment. Using maneuver warfare as its philosophy, it operated well inside the adversary’s OODA loop. The multinational coalition achieved dramatic success in the routing of Saddam Hussein’s forces and in the liberation of Kuwait. The Army validated many of its airland battle doctrine tenets in the famous “left hook” maneuver, quickly outflanking enemy forces and forcing their withdrawal or destruction.

After this victory, no conventional force threats appeared to be on the horizon. With a “peace dividend” looming and the Marine Corps knowing that its survival could once again be at stake, it began to peer into the future. Fortunately, the warfighting philosophy was sound and, as the Marine Corps had done before, it adapted itself, its doctrine, and its weapons systems to the emerging world. The innovative thinkers at the Marine Corps Combat Development Command (successor to Development and Education Command) saw the need to engage in low intensity conflicts in austere parts of the world, particularly the littorals, much as it had done in the early part of the 20th century. In order to fuse doctrine and technology from the start, the Commandant’s Warfighting Lab (later renamed the Marine Corps Warfighting Lab) was stood up in 1995 to assist with warfighting integration. An emphasis on urban warfare emerged in the same time frame, and Commandant Charles C. Krulak’s notion of the “three-block war” represented the likely kind of operations. It posited that in the future, Marine forces might be providing humanitarian assistance on one block, keeping peace between two warring factions on another block, and engaging in a full-on firefight on the third. Weapons systems, tactics, techniques, and procedures would have to be flexible enough to handle simultaneous and overlapping operations.

Concurrently, Combat Development Command continued its study of the operational and strategic environment within which expeditionary forces were likely to operate. From this, three complementary concept papers emerged: Operational Maneuver From the Sea (1996), Ship-to-Objective Maneuver (1997), and Sea Based Logistics (1998). As opposed to the philosophical concept in Fleet Marine Force Manual 1: Maneuver
Warfare, Operational Maneuver From the Sea was the Corps' capstone operational concept for maritime power projection designed to deal with chaos in the littoral environment. Sea Based Logistics is the tactical implementation of Operational Maneuver From the Sea and looks to leverage emerging technologies to develop greater capabilities for amphibious operations. The third, Sea Based Logistics, looked to base assault forces, follow-on forces, command and control, and most importantly logistics at sea vice ashore. All of these concepts are directly traceable to Development and Education Command's work in the 1970s. It was not until the 1990s that the technology was maturing to execute these ambitious plans. The MV-22 Osprey tiltrotor aircraft was finally on the drawing board. It would provide the long-range, high-speed, vertical/short takeoff and landing capability first envisioned three decades previous. The advanced amphibious assault vehicle, the successor to the landing vehicle, tracked and landing vehicle, tracked personnel of World War II and Vietnam, was also in the works and was designed to provide a 25-knot surface assault capability from beyond the horizon. While the revolutionary thinking of post-Vietnam era was constrained by evolutionary nature of technology maturation, budget considerations, and politics, as the Corps entered the 21st century, the doctrine, weapons systems, and analytical rigor of the last 30 years was finally coming together on the battlefield.

In November 2001, a Marine air ground task force afloat in the Indian Ocean executed an expeditionary operation 428 miles into southwestern Afghanistan. Though this Marine air ground task force was small and was not operating in a lethal high-intensity environment, this operation was still an unprecedented accomplishment. It was the first time the Marine Corps had attempted anything close to Operational Maneuver From the Sea or Ship-to-Objective Maneuver from a sea base. By comparison, Allied troops fighting ashore at Normandy and starting at mile zero had to fight 646 miles to Berlin. The MV-22 Osprey was not ready for employment in this operation but did make its combat debut in March 2008 in Iraq. In 2015, the expeditionary fighting vehicle, formerly the advanced amphibious assault vehicle, will reach initial operational capability. This will provide the Marine Corps with the most advanced amphibious assault capability in the world and continue its long developmental history of innovative thinking and technological adaptation.

A complement to seabasing and the tactical implementation of Operational-Maneuver-From-The-Sea (OMFTS), is Ship-to-Objective-Maneuver (STOM). The concept has assault forces, supported by intelligence, surveillance, and reconnaissance, maneuvering rapidly around, through, or over obstacles to penetrate enemy defenses at a time and place of their choosing. Instead of stopping at the beach to build up combat power and then fight inland, forces maneuver directly to an objective supported by command and control and fires from the seabase.
Shortly after the conclusion of the Spanish-American War in 1898, naval planners turned their attention to the problem of seizing and holding advanced naval bases. Such temporary bases, often seized from opposing forces, would prove vital for the prosecution of war in distant places. Marine Corps doctrine and training immediately embraced this new mission. By 1910, the first school of instruction in advanced base doctrine was established at New London, Connecticut. A year later, it was moved to the Philadelphia Navy Yard, where it remained until 1920.

In 1912, Colonel William F. Biddle, Commandant of the Marine Corps, outlined the major objectives of the Advanced Base School’s training program: to train officers and men in the handling, installation, and use of advanced base materials, to examine the weapons and equipment best suited to the seizure and holding of an advanced base, and to study those subjects that pertain “to the selection, occupation, and attack and defense of advanced base positions.”

Within this area of study, the Marine Corps began to experiment with new weapons and equipment that could be employed in its mission of seizing and holding advanced bases. One promising innovation was the armored car.

The first mention of an armored car for the Marines is found in the Quartermaster Marine Corps files of 1916, with funding secured for the purchase of two cars. The U.S. Army had two types under consideration, one manufactured by Bethlehem Steel and the second by the Armored Motor Car Company.

By August 1916, Marine Corps Captains Andrew Drum and Earl H. “Pete” Ellis were sent to Philadelphia to conduct preliminary testing on the Armored Motor Car model. Built on a King luxury sedan chassis and powered by an eight-cylinder motor, the King Armored Car was fitted with quarter-inch armor capable of resisting .30-caliber fire at 100 yards. Manned by a crew of three, the car featured a revolving turret and a mounted Benet-Mercie machine gun.

Testing included the viability of using the car in ship-to-shore operations. Captain Drum reported that the car was loaded onto a 40-foot test boat. While there were no appreciable problems with water transportation, getting the car ashore proved a more difficult task. Drum suggested a number of modifications, and in October 1916, two additional cars were ordered and sent to Philadelphia for further testing.

In January 1918, General George Barnett, Commandant of the Marine Corps, directed the Quartermaster Marine Corps to “please take the necessary steps to procure eight armored cars similar to those furnished the Marine Barracks, Navy Yard, Philadelphia, Pennsylvania.” This is the genesis of the 1st Armored Car Squadron of the Marine Corps. Unit records show that on 1 January 1918, Colonel Ben Fuller noted that “all members of the Armored Car Squadron joined Headquarters Detachment, First Regiment.” Commanded by Marine Gunner Charles Loring, who was later promoted to second lieutenant, the squadron averaged 36 men on the muster rolls. Further inspection and testing of the King Armored Cars was conducted by Captain Drum.

The recent discovery of photographs taken in Galveston, Texas, and an unpublished manuscript written by Lieutenant General Edward Craig, then a young lieutenant assigned to the 8th Marines, shed additional light on the history of the King Armored Car. While the cars saw no service in Europe during World War I, Craig clearly states that two of the armored cars were loaded aboard the USS Hancock (AP 3) in Philadelphia for transport to Galveston. In Texas, Marines were poised to move into Mexico’s Tampico oil fields, one of the major oil sources for supporting the Allied war effort.

In November 1919, Drum’s report...
Five of the cars later saw service with the 2d Marine Regiment in Haiti. Equipped with the beloved Lewis gun, the cars were used to conduct patrols. Haiti, however, had few roads, and once again, the vehicle’s design proved inadequate for the task at hand. The cars were shipped to Quantico in 1927.

In 1933, the following report on the King car was provided to the Quartermaster Marine Corps:

In this vehicle the steering gear is too short and the steering wheel rubs side armor. In fact, the wheel comes to the driver’s knees. The floor is made of 3/4 inch lumber. The steering gear is very light. The springs are weak. The frame has been straightened, has been drilled for two steering gear locations, and is very weak. The side armor had to be cut away in order to clear drag rod of steering gear. The front wheels are out of true . . . . At present the vehicle can be operated, but, it is absolutely unsafe at any speed exceeding eight miles per hour, due to weak linkage, shimmy, and poor brakes.

The King Armored Cars remained in storage until their disposal was authorized in 1934.

The National Museum of the Marine Corps has in its collection a King Armored Car with provenance that can be traced to 1917. Over a period of several months, the museum’s staff undertook a complete restoration of this historic vehicle. The restoration team fabricated front wire cutters and bridging ramps. The staff applied a historically documented, hand-brushed camouflage paint scheme using images from the 1st Armored Car Squadron as a template.

The King Armored Car will be exhibited in the new gallery “First to Fight: Age of Expansion,” scheduled to open in April 2010. The exhibit will address the genesis of combined arms doctrine within the Marine Corps and highlight the spirit of innovation and the Corps’ willingness to experiment with new technology.
The Harrier AV-8A: The Corps’ First Vertical/Short Takeoff Landing Aircraft

By Julie H. Robert
History Division Intern

It was a aircraft unlike any other. The Harrier AV-8A on the outside resembled an ordinary jet of the time, but once it took to the skies, any expectations simply evaporated. Upon its arrival at Marine Corps Base Quantico on 4 August 1970, the Harrier stunned many spectators that summer day. The aircraft attacked, climbed, and dove like most jets at the time, but the Harrier also hovered in midair, and most importantly, took off and landed vertically. A writer for the Marine Corps Gazette, G. M. Smith, commented that “for many who watched the plane’s antics, words seemed lost anyway. It was a human moment; they were watching a new freedom in the art of flying.”

The Marine Corps has always operated well on short notice, deploying troops at a moment’s notice anywhere around the world. Although the Corps is a skilled amphibious force, the need for close air support is also very important. Since the beginning of military aviation, the Corps has developed procedures to integrate ground units with aircraft wings. One main development in the integration of Marine aviation with ground units was the introduction of “vertical assault.” Although historically several aircraft have had this capability, helicopters alone, with the capability for vertical/short takeoff and landing, have been considered absolutely essential to successful military operations. Unfortunately, helicopters lack the speed necessary for close air support. This lack of speed explains one reason for a high-performance vertical/short takeoff and landing jet.

Another reason for the need for vertical/short takeoff and landing capabilities is that Marines usually confront, would be a vertical/short takeoff and landing aircraft, which can quickly respond from expeditionary airfields and land in proximity to where it is needed. So when the first vertical/short takeoff and landing aircraft came along (the British-made Hawker Harrier), the Corps had finally found an aircraft that could meet the Corps’ needs for a high-performance jet that could take off and land in 72 square feet of space.

The history behind the Harrier and the vertical/short takeoff and landing concept began in 1954 when a French engineer, Michel Wibault, first conceived the idea of using a turboprop engine to drive four centrifugal blowers, which exhausted through rotatable nozzles. With this design, an aircraft could fly like a helicopter without the use of rotating blades. Although the French seemed not very interested in this “futuristic” idea, a duo of British aero-engine manufacturing companies, Bristol Siddeley and Hawker Siddeley, saw a glimmer of the future in this idea. During the next few years, both companies struggled with this new concept and finally unveiled the BS53, known as Pegasus, which first ran in September 1959. Pegasus showed the potential for high speed and high performance integrated with vertical/short takeoff and landing capabilities.

The Pegasus was the progenitor of the Hawker P-1127 and the Kestral, flown in 1960 and 1964, respectively. However, Bristol Siddeley and Hawker Siddeley felt that an upgraded model was needed. Within a few years, the Harrier was developed and flew on 28 December 1967. The Harrier was inducted into the British Royal Air Force two years later on 1 April 1969.

By the time that the British first flew the Harrier, it had already been spotted by the United States Marine Corps. Here was an aircraft that perfectly fit the needs of the Marine Corps; the Harrier could take off and land in a short space with 5,000 pounds of fuel and ordnance, and resembled, in many ways, the speed and flight characteristics of the A-4E Skyhawk. After learning about the new aircraft, the head of the Air Weapons System Branch of Headquarters Marine Corps, Lieutenant Colonel John J. Metzko, brought the newly redesigned British aircraft to the attention of Major General Keith B. McCutcheon, who was at that time the Marine Corps Deputy Chief of Staff Air. Major General McCutcheon was granted approval to have two Marine Corps pilots cross the Atlantic in September 1968 to test fly this extraordinary aircraft. After their test flights, Colonel Thomas H. Miller and Lieutenant Colonel Clarence M. Barker
stated that the vertical takeoff and landing capabilities of the Harrier “far exceeded their expectations.” To the many critics of the Harrier, both pilots stated that the Harrier could “carry an effective ordnance load from a vertical take off to a useful target range, deliver the ordnance, and return.” Colonel Miller even felt that “an unprecedented potential in the advantages of the Harrier could lead to a complete overhaul in aircraft tactics and procedures” for the Marine Corps.

Following the rigorous testing of the Harrier by these two pilots, the Department of Defense approved the purchase of 12 Harriers during fiscal year 1970. The Corps purchased another 18 Harriers in the next fiscal year. Minor changes were made to the original design to conform to Corps’ needs, namely the addition of Sidewinder missiles for self-defense and a more powerful engine.

In January 1971, the Harrier finally arrived at the Marine Corps Air Station in Beaufort, South Carolina, and the first squadron of Harriers was formed. The VMA-513 became fully operational within the next year, with another squadron in 1972, and a third in 1973. By 1973, the VMA-513 was ready for deployment on board the USS Guam (LPH 9) and also to the Marine Corps Air Station in Iwakuni, Japan.

After upgrading the AV-8A to the AV-8B in the early 1980s and 1990s, the Harrier, by the 2000s, was starting to show its age after 37 years of service. Consequently, the Corps began its next developmental quest for an improved vertical/short takeoff and landing aircraft. The Harrier will be reborn in the upcoming Joint Strike Fighter with vertical/short takeoff and landing capabilities. Richard L. Aboulafia, a military and commercial aircraft consultant, points out that “the vertical version of the Joint Strike Fighter will be the first U.S. operated supersonic vertical takeoff fighter, and that means that they will have the capability to carry a fair amount of ordnance at high speed.” Simply put, the Joint Strike Fighter has finally combined the high performance of a jet and the capabilities of a helicopter. It is the Harrier of a new generation, an aircraft that continues to revolutionize Marine Corps aviation.

From the Sea: Amphibious Tracked Vehicles in the Marine Corps

By Col Charles A. Jones, Field Historian
Ryan P. McDonough, History Division Intern

While the public may perceive the U.S. military as being fairly rigid and impervious to innovation and change, the development and use of the amphibious tracked vehicle by the U.S. Marine Corps since the 1930s proves that this perception is perhaps not entirely correct for all the services.

Marine Corps amphibious tracked vehicles have a long history, seeing use from Guadalcanal in 1942 to the fighting today in Iraq. The Landing Vehicle Tracked (LVT) used in World War II became the Amphibious Assault Vehicle (AAV) used in Vietnam and, in later versions, in the Middle East conflicts in the 1990s and 2000s. The next generation of the amphibious tracked vehicle, currently under development, is the Expeditionary Fighting Vehicle (EFV).

The basis for what became the Marine Corps series of World War II amphibious tracked vehicles was discovered in an unusual way. In response to a series of hurricanes in Florida in the 1920s and ‘30s, Donald Roebling began developing a vehicle envisioned to aid in hurricane relief and also in rescuing downed civilian pilots in the Everglades. Starting work in 1933, he completed a version of what he called the “Alligator” in 1935. With a top speed in water of only 2.3 miles per hour, however, the first Alligator was impractical, and Roebling continued developing it.

The Marine Corps first noticed the Alligator in 1937 when Navy Rear Admiral Edward C. Kalbfus showed the Fleet Marine Force Commander, Major General Louis McCarty Little, an

Donald Roebling’s amphibious vehicle was initially designed to rescue hurricane victims. The Alligator was the progenitor for the landing vehicle tracked.

Department of Defense Photo (USMC)
could cross Tarawa’s reefs. The landing at Tarawa was the first operation in which amphibious tracked vehicles carried Marine assault troops from ship to shore. According to Colonel Theodore L. Gatchel, “the success of the Landing Vehicles Tracked, in negotiating the reef when landing craft could not, was a major factor in the decisive Marine victory.”

Tarawa, however, also revealed the need for more improvements, primarily greater speed and better armor. The original vehicle required Marines to jump over its sides under enemy fire and lacked a ramp that could be dropped, allowing troops quick and direct access to the beach. The LVT (4) and its variants corrected the ramp issue and served Marines through the rest of the war and into the 1950s. In 1956, another evolution of the LVT occurred with the introduction of the LVT (5) vehicles. In Vietnam, however, the Landing Vehicle Tracked became more of an armored personnel carrier than a true amphibious vehicle for which it had been originally designed. As an armored personnel carrier the LVT was large, slow, and lightly armored. Further, its fuel tanks were located on the sides of the vehicle making it highly vulnerable to rockets and rocket propelled grenades, the preferred weapons of choice of the Viet Cong and North Vietnamese army.

The difficulties experienced by the LVT in Vietnam required the Marine Corps to reevaluate the purpose of these vehicles in future wars. Consequently, the LVTP (7) was introduced in 1972 and included significant upgrades (an improved engine, transmission, and weapons systems) and was renamed the Amphibious Assault Vehicle (AAV) in 1982. However, this vehicle still remained vulnerable to rocket propelled grenades. Retired Marine Colonel Clayton Nans summarized the dilemma for Marines using AAVs in the Middle East: “If you want to stop rocket propelled grenades, which are basically antitank rockets, you’ve got to add heavy reactive armor plates . . . but as soon as you do that, you can’t swim, and if you can’t swim, you can’t accomplish what we’ve got to do.” In short, reactive armor plates would compromise the AAV’s capability to operate in the water.

The Expeditionary Fighting Vehicle (EFV), currently in testing stages, will give the Marine Corps a completely new amphibious tracked vehicle designed to be superior to the current AAV on land and at sea and will have improved armor, armament, and technology. The EFV will travel at 20 to 25 miles per hour in the water, about four times faster than the AAV, and will travel up to 45 miles per hour on land.

The EFV is a long way from the original Alligator, but it very much continues the Marine Corps’ efforts to maintain and improve its “from the sea” amphibious tracked forced entry capability it has had since the first LVTs crawled ashore during World War II.
The Navy Nurse Corps turned 100 on 13 May 2008. Established by Congress in 1908 with funds appropriated by President Theodore Roosevelt, it is a unique corps of the Department of the Navy that has evolved over time with the nation’s needs in war and peace. Like the U.S. Navy Medical, Dental, and Hospital Corps, the mission of the Nurse Corps is to provide care for sailors and Marines. From its original 20 female members (‘The Sacred Twenty’), the Navy Nurse Corps expanded with the demands of World War I; in the United Kingdom and Europe, the U.S. Navy deployed five base hospitals and a number of special operating teams, including those loaned to the U.S. Army during the 1918 offensives. By November 1918, there were some 1,550 Navy Nurses in naval hospitals and transports at home and abroad.

When World War II began, nurses were aboard the USS Solace (AH 2) that treated the casualties from the Japanese attack on Pearl Harbor, Hawai'i. Others were among the Americans taken prisoner on Guam and in the Philippines. Some of these were repatriated in 1942, while the remainder remained in captivity until 1945. Reaching peak strength in 1945, 11,086 nurses were serving in 40 naval hospitals, 176 dispensaries, and at 6 hospital corps schools. Overseas, this included hospital ships, air evacuations facilities, and at forward operating bases. The U.S. Navy assigned nurses relative rank in 1942, with actual rank being established in 1944, and permanent commissioned rank as a staff corps in 1947. The first male nurses were commissioned in 1964 (men currently comprise 25 percent of the Nurse Corps).

During the Cold War in Korea and Vietnam, Navy Nurses once more served aboard hospital ships and at Navy support activities where, along with the other medical counterparts, they provided life-saving medical care to sailors and Marines. After the Cold War, there was renewed emphasis on humanitarian and disaster support. In the 1990–91 Gulf War, two hospital ships supported the fleet, and fleet hospital facilities operated ashore. By the end of the 1990s, there were 5,000 Navy Nurses and other personnel; these personnel decreased to around 4,000 in this century.

During the current Global War on Terrorism, Navy medicine continues to save lives “on land and sea.” According to Rear Admiral Christine M. Bruzek-Kohler, USN (NC), “the Marines and sailors we serve needed us then and they need us now as we provide expert nursing care to them whenever and wherever it is needed.” Happy Birthday Nurse Corps! Further information can be found at <www.nnca.org> and <www.history.navy.mil>.

Wounded Marines and sailors during the Korean War are given medication by a nurse assisted by one of the patients. Navy medicine always subscribed to the principle of keeping hospital wards clean and running through self-help by patients and corpsmen.
Though more commonly associated with the Pacific theater of operations, the United States Marine Corps has had a history of service in Europe as well. While the exploits of the Marines during the World War I are well known, few know that U.S. Marines were stationed in Northern Ireland during the World War II. In postwar Europe, the Corps’ service on the continent centered around the rotational six-month deployments of Marine expeditionary units with the Navy’s Sixth Fleet in the Mediterranean Sea, conducted on a continuous basis throughout most of the Cold War period. Though occurring less frequently, shorter deployments of Marine units to the North and Baltic Seas also became routine by the 1970s, the same decade during which strategic plans were developed assigning the mission for the defense of Norway—the North Atlantic Treaty Organization’s northern flank—to the Marine Corps. In order to accomplish this increasingly wide range of activities, it became patently evident that the Marines needed a more permanent presence within the European theater.

A permanent Marine Corps presence in Europe began in February 1980. After several reorganizations and name changes, in July 2007, Marine Forces Europe became an independent, stand-alone service component command within the European Command.

For the past 14 years, Headquarters, Marine Forces Europe has been located at Panzer Kaserne, just outside the town of Boeblingen, Germany. The base is just one of several important U.S. military installations that are in the greater Stuttgart metropolitan region—the U.S. European Command has its headquarters at nearby Patch Barracks, while the newly established U.S. Africa Command has taken up residence at Kelley Barracks. Africa Command and its component service commands will not be fully operational until October 2008, and as such, the European Command/Marine Forces Europe still manages much of Africa Command’s area of responsibility. Consequently, European Command/Marine Forces Europe’s total area of responsibility is immense, encompassing all of Europe, most of Africa, and a large portion of what had been the former Soviet Union—some 13 million square miles, encompassing 94 countries and virtually every climate and topography imaginable. While the creation of Africa Command will reduce this geographic area to a considerable degree, the challenges of
managing the remaining portion of the European theater are significant.

Major General Cornell A. Wilson Jr. has been the commander of Marine Forces Europe since assuming command in July 2007 as well as the U.S. Marine Corps service component commander for the U.S. European Command. He commands about 1,200 Marines stationed within his area of responsibility, with the largest Marine units located in Frankfurt, Germany (Embassy Security Battalion, 4 Company Headquarters); Mendenhall, United Kingdom (Marine Cryptologic Support Battalion); Rota, Spain (Marine Corps Security Force Company); Mons/Brussels, Belgium (administrative support and staffing to Headquarters, Supreme Headquarters Allied Powers Europe/North Atlantic Treaty Organization); and Stuttgart, Germany (Headquarters, Marine Forces Europe and administrative support and staffing to Headquarters, European Command).

Approximately 140 personnel are assigned to Headquarters, Marine Forces Europe at Panzer Kaserne; of this total, there were 76 active-duty, 46 reservists, and 15 civilians (17 active-duty personnel belong to the nascent Marine Forces Africa, the Marine service component to Africa Command). Housed in an impressive three-story brick structure, this staff plans for, coordinates, and conducts a varied array of conferences, training exercises, military-to-military programs, real-world contingencies, and programs and initiatives supporting Operations Enduring Freedom and Iraqi Freedom, as well as the Global War on Terrorism.

The European theater has always had a robust schedule of service, joint, bilateral, and multinational exercises, and the last several years have proven no exception. Both fiscal year 2007 and 2008 saw more than a dozen major exercises conducted, equally distributed between the African and European geographic portions of the Marine Forces Europe’s area of responsibility. In fiscal year 2008, the exercises in Europe included Combined Endeavor (Germany and Croatia) and Immediate Response (Georgia), while those conducted on the African continent included WATC 08 (Liberia), African Lion (Morocco), Shared Accord (Ghana), and MEDFLAG (Mali). These exercises involved the introduction of 1,800 U.S.-based Marines and sailors into theater, including almost 1,600 reservists.

Recent theater initiatives included a demonstration of (1) one of the new Seapower 21 concepts for the U.S. Navy—a wave-piercing, aluminum-hulled catamaran; (2) the improved Naval Lighterage System; and (3) the prepositioning of equipment, outside of the European theater, as part of the Marine Corps Prepositioning Program-Norway.

Initial efforts by the command included its support of numerous Partnership for Peace exercises involving nations of the former Soviet Union, several of which have contributed troops to Iraq and Afghanistan. Another successful effort was the Georgian Train and Equip Program, conducted by the Marines from May 2002 to April 2004, which resulted in trained Georgian troops being deployed to Iraq. Marine Forces Europe’s current efforts include its direct support of Operation Enduring Freedom–Trans-Sahara, which is the military component of the U.S. government’s broader Trans-Sahara Counterterrorism Partnership. The program is designed to enhance the effectiveness of regional governments to police the expanses of largely ungoverned spaces in the trans-Sahara. Other African initiatives

_MajGen Cornell A. Wilson Jr. and the MarForEur headquarters staff. The headquarters staff is responsible for a wide range of missions throughout the European Command area of responsibility._

Department of Defense Photo
include supporting the Department of State’s Africa Contingency Operations Training Assistance, which will enhance the ability of partner nations to participate in multinational Peace Support Operations.

Marine Forces Europe also has been actively engaged in standing up the Marine Corps component—Marine Forces Africa—of the new Africa Command. Total personnel will be approximately 30 Marines and 8 civilians. Marine Forces Africa will be colocated at Panzer Kaserne, sharing the building occupied by Marine Forces Europe. It is envisioned that the two organizations will share some administrative, communications, and support staff even after the new organization becomes fully operational in October 2008.

The 27 years since the establishment of Headquarters, Fleet Marine Force, Europe have witnessed several fundamental shifts in European history: the classic Cold War period during the 1980s, characterized by the member nations of the NATO arrayed against the Soviet Union and the Warsaw Pact nations; the post-Cold War period during the 1990s as the European Command and NATO sought new missions within an expanded partnership amid a new geo-political framework; and the Global War on Terrorism or Long War period of the new millennium, with NATO assets and troops being deployed far outside of Europe. Throughout this tumultuous period, Marine Forces Europe has shown an ability to consistently adapt its role and focus to meet the challenges brought about by changing geopolitical conditions, an ability that has contributed to its long-standing organizational success.

Special Thanks

The author would like to thank Colonel John M. Sullivan (Chief of Staff, Marine Forces Europe) and his staff for ensuring that the History Division collection team’s visit in December 2007 to MARFOREUR headquarters went off without a hitch. Because of the efforts of the headquarters staff, the collection team—Colonel Patricia D. Saint, Master Gunnery Sergeant Robert A. Yarnall, and the author—collected a wide range of documents, briefs, computer disks, and pictures. The collection trip was part of a wider research effort that is being conducted to support a monograph tentatively titled Marines in Europe, 1980-2007. Thanks also to Colonel Bradley H. Shumaker (Colonel Sullivan’s replacement as chief of staff) and his staff for reviewing the draft version of this article and for offering suggestions that have improved its content. A final thanks goes to Colonel Saint, who contributed the Landstuhl Liaison Team sidebar for this article.
Located in Northern Europe along the eastern and northern portions of the Scandinavian Peninsula, Norway is the northern continental limit of the European Command/ Marine Forces Europe’s area of responsibility. Norway has long constituted the northern flank of the North Atlantic Treaty Organization (NATO), a role that was of particular importance during the Cold War period. Within this context, the relationship between the U.S. Marine Corps and Norway has been extensive and ongoing.

During the Cold War, the Marines were assigned the strategic mission of rapidly reinforcing NATO’s northern flank with a potent, sustainable force in the event of hostilities. The Norway air-landed Marine expeditionary brigade was created in 1981. The mission of the brigade included the prepositioning of equipment, supplies, ammunition, and fuel in caves/underground facilities in the Trondheim region of central Norway to support the brigade’s 13,000 Marines that would be flown in from the United States and then redeployed to northern Norway in case of aggression by the former Soviet Union.

In 2005, the Norway air-landed Marine expeditionary brigade was renamed the Marine Corps Prepositioning Program-Norway and given a new focus, which allowed the equipment to be employed outside of Norway and (ultimately) Europe. In addition to these programs, U.S. Marines have conducted a broad range of exercises in Norway—most notably the series of NATO, Battle Griffin, and Strong Resolve exercises—during the past several decades.

Geographically, Norway stretches over 13 degrees of latitude (58 north to 71 north), from the country’s southern tip near Kristiansand to the rugged cliffs of the North Cape almost a thousand miles away; from the North Cape, another 150-mile trip eastward ends at the border with Russia. One of the world’s northernmost countries, Norway’s largely mountainous territory is crossed by the Arctic Circle near its midpoint. While the summers in Norway are pleasant, the winters certainly are not; the “Land of the Midnight Sun” that is touted in so many travel guides and tourist brochures could just as correctly be named the “Land of the Midday Moon,” with winter periods of 24-hour darkness (polar night) ranging in duration from a few days near the latitude of the Arctic Circle to two full months along the North Cape. Despite being warmed considerably by the Atlantic Ocean’s Gulf Stream, Norway’s arctic winters can be quite brutal and dangerous, especially so to military personnel who must conduct operations and field exercises in the often arduous conditions that characterize the country’s winter climate.

The decision to create the Center of Excellence-Cold Weather Operations was made to better prepare NATO and Partnership for Peace military personnel to operate effectively in challenging cold-weather conditions like those found in Norway. The center’s literature aptly summarizes the critical importance of its cold-weather training and doctrine: “If you can fight and survive in the extremes of the Arctic... you can fight anywhere in the world.”

The Center is part of and is staffed by Norway’s National Joint Headquarters, which is the principal staff organization that is responsible for the operational and training activities of Norway’s Armed Forces, both nationally and internationally. Located on a military installation on the lower slopes of Mount Jatta about seven miles south of Stavanger (Norway’s fourth-largest city), the Center and National Joint Headquarters personnel work in the “bunker” facilities beneath the hillside.
ation and to improve NATO’s capabilities and interoperability. While Joint Warfare Center personnel work in typical office buildings, most of the National Joint Headquarters staff work in a multi-level maze of underground offices, command and control facilities, tunnels, and other infrastructure constructed beneath Mount Jatta.

Working closely with the Norwegian School of Winter Warfare, the Center offers a wide variety of formal cold-weather and winter courses at Terningmoen Garrison. The Center’s Allied Training Center-South at Voss and -North at Harstad also offer courses and training to NATO and Partnership for Peace military units and personnel. The Center also disseminates to NATO nations a number of research and development studies relating to cold-weather environments that are conducted by the Norwegian Defense Research Establishment. In addition, as part of the National Joint Headquarters J-7, the Center assists in planning and conducting a number of cold-weather exercises each year—during 2008 these included: Explosive Ordnance Disposal Exercise 08, involving 11 participating and 5 observer nations; and Armatura Borealis 08, involving units from the United Kingdom and the Netherlands. Smaller-scale exercises are also conducted by the Center’s Allied Training Centers to facilitate an organization’s specific cold-weather training requirements; for instance, Allied Training Center-North conducted courses along with exercises OCTANS-1 and 2 in order to fulfill 3 Commando Brigade, Royal Marines’ (UK) unit training goals.

A critical component of the Center’s structure is its two Allied Training Centers: Allied Training Center-North, located at Asegarden Garrison near Harstad, and Allied Training Center-South, located at Bomoen Garrison near Voss. The mission assigned to the staff of these two Allied Training Centers is to support all land-based allied and foreign training. This mission entails a large number of diverse duties and functions, all designed to ensure that a visiting unit’s training

The design of Norway Joint Headquarters logo (3 swords) is based on this monument, which is located about 10 miles from Jatta. Dedicated by Norway's King Olav V in 1983, the monument—three bronze swords over 30 feet tall—commemorates the Battle of Hafrsfjord in 872, which resulted in the unification of Norway into a single kingdom under King Harald Fairhair.

Photo courtesy of Col Stephen Evans

Map of Norway showing location of places mentioned in this article, and a few other towns and installations of note.
requirements and objectives are fully met during their deployments to Norway. These functions include coordinating and controlling the use of camps, ranges, and training areas; coordinating cross training with Norwegian units; coordinating Host Nation support; and providing liaison officers, instructors, or advisors as requested or required. Visiting units have full use of all garrison facilities—billeting, office spaces, officer and NCO mess, dining facilities, gymnasiums, and hangers—at Asegarden Garrison, Evenes Air Station, and Bomoen Garrison.

Because of the center's very high level of commitment to cold-weather training and education, and the outstanding support activities of its allied training centers, Norway has become the first choice of many allied and NATO forces when it comes to deciding on where they will conduct their cold-weather exercises and winter training.

Special Thanks

The author would like to thank, first and foremost, Lieutenant Colonel Frank Terje Aarrestad, who serves as a staff officer in the J-7, Norwegian National Joint Headquarters. LtCol Aarrestad was the primary point of contact whose ongoing liaison and coordination efforts were critical in ensuring that the History Division collection team's visits—to National Joint Headquarters, Stavanger, in December 2007, and to Tromso and Harstad in northern Norway in February 2008—were highly successful. Because of his efforts, the collection team—Captain Christopher Wilson and the author—collected a number of documents, briefs, and pictures. The collection trips are part of a wider research effort that is being conducted to support a monograph tentatively titled Marines in Europe, 1980-2007. Thanks also to Commander George-Johan Haheim, the National Joint Headquarters point of contact for Explosive Ordnance Disposal Exercise 08, for facilitating our collection efforts in the Tromso area (including Olavsvenn Naval Base) during that exercise. Special thanks also goes to Lieutenant Colonel Lars Sundnes, the commanding officer at Allied Training Center-North, for allowing us full access to his staff and to the Asegarden Garrison, as well as setting up visits to Ramsund Naval Base, Rames Firing Ranges installation, and Evenes Air Station. A final thanks goes to Captain Sven-Kristian Loveit of the Allied Training Center-North for driving the team to various bases in the Harstad region, sometimes in near-blizzard conditions.
Prior to the Revolutionary War, colonial merchant ships enjoyed the protection of British treaties as they carried out trade on both coasts of the Mediterranean. By 1777, our young Republic was on its own and in desperate need of trading partners. In an attempt to boost his nation’s faltering economy and demonstrate the possibility to his neighbors of Muslim-Christian amicability, the Moorish Emperor of Morocco, Sultan Sidi Muhammad bin Abdullah, wrote a letter to the “13 United States of North America” to express his desire to create a treaty. Due to the war with Britain and a civil war in Morocco, it took 10 years for Congress to ratify the document, but in 1787, the Treaty of Peace and Friendship went into effect, guaranteeing safe passage and free port visits for American sailing vessels. Since Emperor Sidi Muhammad had negotiated the same treaties with several other European countries, the United States found itself on equal footing on the world scene for the first time. Many may not realize that this treaty, renegotiated in 1836, constitutes the longest unbroken treaty in U.S. history. Thus began a relationship that U.S. Marines continue to forge and refine to this day.

Marine involvement in Morocco first came to light with the infamous Perdicaris Affair of 1904. Ion Perdicaris, an American expatriate and Greek citizen living in Tangier, was a successful businessman and socialite. While dining in his residence on the outskirts of the city on 16 May 1904, a local bandit and folk hero, Ahmed er Raisuli, captured the elderly man and his nephew. Absconding with the men into the desert night, Raisuli proved that he was not completely heartless when he sent one of his men back for Perdicaris’ overcoat. According to an entry by Rear Admiral French E. Chadwick in the Army and Navy Journal of 25 June 1904, Raisuli’s demands for the release of his prisoners were significant: “the release of prisoners at Tangier and elsewhere; the dismissal of the present Basha here, who is much disliked; the payment by the family of the Basha of $70,000; freedom of Raisuli’s tribal region from taxes, and a full pardon for all.” Bumptious and assertive President Theodore Roosevelt at once dispatched Chadwick’s South Atlantic Squadron to Tangier Bay, where it was quickly joined by three ships from the European Squadron. This high drama was the perfect backdrop for the political hubbub back in the U.S.—the Republican Convention underway in Chicago. The seven American warships, joined by three British ones from Gibraltar, arrived on the scene in late May, awaiting the outcome of diplomatic efforts. Finally on 22 June, the savvy U.S. secretary of state, John Hay, sent a telegram to the Moroccan government from President Roosevelt: “This Government wants Perdicaris alive or Raisuli dead.”

With that decree in hand and Marines standing by just offshore, the American consulate general, Samuel R. Gummere, thought it prudent to reinforce the consulate guard. Captain John T. Myers—famous in Marine Corps circles at the time for his recent defense of the American Legation Guard in Peking during the Boxer Rebellion—and 11 Marines from the flagship USS Brooklyn (CL 40) disembarked just in time to discover that...
Raisuli’s demands had been met and that Perdicaris and his nephew had been released unharmed. Myers later rose to the rank of lieutenant general, and Hollywood took literary license and made the Perdicaris affair into the 1975 film *The Wind and the Lion*.

In late 1942, ships’ detachment Marines participated in Operation Torch in Morocco as part of Task Force 34. The task force’s commanding officer, Rear Admiral H. Kent Hewitt, had two Marine officers as members of his principle staff. The assistant intelligence officer, Major Francis M. Rogers, fluent in both Arabic and French, became instrumental as a translator in the ensuing Vichy French surrender in Morocco, receiving the Silver Star for his efforts.

Marines again landed in Morocco in 1948, this time to create Marine Barracks, Morocco. Based in the city of Port Lyautey, later named Kenitra, their mission was to provide security for the naval facilities. The barrack’s first commanding officer was Captain Samuel Jaskilka, who later became Assistant Commandant of the Marine Corps from 1975 to 1978. The barracks remained operational until 1978.

Although life in Morocco in the 1950s was relatively quiet for the Marines most days, the Moroccans’ attempt to rid their country of their French overseers caused a great deal of local agitation, crippling strikes, and general disorder. On 31 October 1956, Company E, 2d Battalion, 2d Marines, from Camp Lejeune, North Carolina, arrived at Port Lyautey Naval Air Station to reinforce guard personnel and to be on standby to respond to any contingencies. Aside from preventing a few attempts to pilfer supplies, the Marines saw no action. The company returned home on 7 February 1957.

After the agitation caused by the independence movement in Morocco settled down in the late 1950s, Morocco held its first elections for a constitutional monarchy in 1962. Marines remained on duty at the naval facilities, often augmented by working dogs, and later by their families on “accompanyed tours.” United States-Moroccan relations remained stable throughout the 1960s, ’70s, and ’80s, strengthened by reciprocal heads-of-state visits and the Moroccan policies of religious tolerance, support of democratic institutions, and opposition to Communist expansion. Morocco was the first Muslim nation to join the Coalition during Desert Shield/Desert Storm, contributing 1,200 troops to the effort.

In the early 1990s, Marine-initiated training activities brought in a new era for U.S. involvement in the country that continued into the new century and the Global War on Terrorism. According to the May 1993 issue of *Leatherneck*, Marines and sailors of the 22d Marine Expeditionary Unit participated in a successful joint amphibious training exercise with Moroccan armed forces in African Eagle ’92. Since then our two countries have built on that foundation. The commanding officer of Task Force 23 for exercise African Lion 2008, Colonel Charles E. Hall—a first lieutenant when he trained in Morocco 20 years ago—recalled that the training then was very one dimensional: “We did our thing, they did their thing, then we had a field day at the end.” But this year’s exercise was much different. Colonel Hall noted that the “interoperability has been really tremendous, and our Marines are getting a lot from not only the training, but the interaction with the Moroccans as well.” In the Cap Draa training facility in southern Morocco, Marines from Weapons Company, 1st Battalion, 23d Marines, out of Austin, Texas, were the ground element for the task force. Their commander, Major Gary W. Bilyeu, and his operations chief, Master Sergeant John A. Salvati, both commented on the great training for both countries’ forces and the professionalism of the Moroccan 6th Regiment. In fact, Salvati noted that out of all the units he has trained with on various deployments over 21 years, “the Moroccans are by far the most professional” that he has seen. Major Bilyeu observed that “to come here to dispel some of the myths—U.S. and Moroccan—it’s really been great training for the Marines,” as it was for the Moroccans. It was the universal theme of goodwill and relationship-building that Marines mentioned most often and seemed to be the hallmark of this exercise.

Military Police Marines from MP Detachment, Wahpeton, North Dakota, perhaps reaped the most visible benefits. In their desert training area in Tifnit, not far from the beach, both Marines and Moroccans were standoffish at the beginning. Before long, however, the Marines were drinking tea, eating, and dancing with the fun-loving Moroccans at every opportuni-
ty, despite the language barrier. With roughly half of the company comprised of Iraq veterans, Gunnery Sergeant Corey R. Bode noted that “after being here and training and communicating with the Moroccans, it makes it easier for the Marines to feel at home with Muslims and Arabic-speaking people,” which translates into improved attitudes for upcoming deployments.

Two Marine KC-130s deployed from their home base in Ft. Worth, Texas, to teach the Moroccans the basics of air-to-air refueling. Moroccan pilots maneuvered their desert-patterned F-5s in what turned out to be a very successful training exercise, and one that will advance the Moroccans’ goal of eventually being able to provide their own close air support.

The final component of African Lion was a Humanitarian Civic Assistance outreach, staffed and executed by the 151st Expeditionary Medical Group. Based out of Guelmim, Morocco, the doctors, dentists, medics, and corpsmen of the group assisted more than 9,000 Moroccans in largely remote villages. Moroccan Lieutenant Colonel Laktiri, a 22-year army veteran, said that the local people understand the value of these kinds of activities, and that the “positive echo” that they create will make other Moroccans hope for a visit from the group next year.

Major General Cornell A. Wilson, commanding general of both Marine Forces Europe and the fledgling Marine Forces Africa, was uniformly pleased with the outcome of the exercise. The general commented that Marine Forces Europe is “already doing exercises throughout Africa,” and that when Marine Forces Africa becomes fully operational on 1 October 2008, the scope and frequency of training will increase. “Several countries have expressed interest in working with us more, so we want to tap into that reservoir of goodwill and bring our Marines down . . . [to see] how we can assist them and how they can assist us.”

Since that first communiqué more than 231 year ago, there has been a spirit of goodwill and mutual cooperation between the United States and the Kingdom of Morocco. Marines have served and continue to serve in a capacity that enhances the security, cultural understanding, and interoperability between our nations. As our longest ally, strong training partner, and cultural ambassador, Morocco is and will remain an integral part of United States Marine Corps history.

Special Thanks: The author wishes to thank Major Nebyou Yonas, Colonel Charles Hall, and the entire African Lion 2008 staff for their support and cooperation in this collection effort.

Marine Corps Chronology

4th Marine Brigade in World War I

by Kara R. Newcomer
Reference Historian

In commemoration of the 90th anniversary of the end of World War I, Fortitudine is reprinting the following chronology. This, along with many other chronologies of the Marine Corps, can be found in the Frequently Requested area of the Marine Corps History Division web site: <www. history.usmc.mil>.

6 April 1917 – U.S. declares war on Germany.

16 May 1917 – Secretary of War Newton D. Baker requests a regiment of Marines be made available for service with the American Expeditionary Force in France. The 5th Marines, then at Philadelphia, was selected.

27 May 1917 – President Woodrow Wilson directs the Commandant of the Marine Corps, Major General George Barnett, to order the 5th Marines to France.

14 June 1917 – The 5th Marines, commanded by Colonel Charles A. Doyen, sails from New York on board the USS Henderson (AP 1), the USS DeKalb (ID 3010), and the USS Hancock (AP 3).

27 June 1917 – Colonel Doyen and regimental headquarters arrives at St. Nazaire, France.

2 July 1917 – The 5th Marines arrives at St. Nazaire, France and is attached to the U.S. Army’s 1st Division, American Expeditionary Force.

9 July 1917 – The 5th Marines begins guard and provost duty at St. Nazaire.

16 July 1917 – The 1st and 2d Battalions, 5th Marines, move to Gondrecourt and begin trench warfare training with the 30th, 70th and 151st Battalions of the French Alpine Chasseurs, known as the Blue Devils. The 3d Battalion remains at St. Nazaire.

August 1917 – Headquarters decides to form the 2d Division, American Expeditionary Force. It would consist of the 4th Marine Brigade and the 3d U.S. Army Brigade. Its regiments would be the 5th and 6th Marines and the Army’s 9th and 23d Infantry.

August 1917 – The 6th Marines begin forming at Quantico, Virginia, under the command of Colonel Albertus W. Catlin.

September 1917 – Elements of the 9th and 23d Infantry begin arriving in France and are assigned to a 2d Division assembly area around Bourmont.

24 September 1917 – The 5th Marines, less detachments still on guard duty, arrives at the division assembly area. Brigadier General Charles A. Doyen activates the division and assumes command.

5 October 1917 – The 6th Marines begins arriving as the regiment’s 1st Battalion debarks at St. Nazaire. The
regimental headquarters arrives on 1 November and the 3d and 2d Battalions arrive on 12 November 1917 and 5 February 1918, respectively. Initially, all units except the 2d Battalion, which went directly to the Brigade, pull guard duty at French ports.

December 1917 – All Marine units are reorganized. Rifle companies are enlarged, one company is added to each battalion, and a machine gun battalion, the 6th Machine Gun Battalion, is formed. The 4th Marine Brigade strength reaches 9,444, the largest unit ever formed by Marines.

10 March 1918 – Brigade assembled. The 3d U.S. Army Brigade is also ready. The organization of the division is complete and Major General Omar Bundy, USA, assumes command. The 2d Division begins moving to the Toulon Sector, southeast of Verdun, where it would be assigned to the X Corps of the 2d French Army.

17 March 1918 – 2d Battalion, 5th Marines, relieves a French unit and occupies Center of Resistance Montgirmont. Later, other Marine and Army units move into frontline positions and, as the French withdraw troops to meet a German drive at Amiens, the 2d Division is left holding a front that had been held by more than two divisions.

6 April 1918 – 74th Company repulses a German raid at Tresvaux.

13 April 1918 – 74th Company suffers heavy casualties in a surprise gas attack.

20 April 1918 – 84th Company and a platoon of the 45th Company successfully repulse separate raids. Second Lieutenant Edward B. Hope, commander of the raided platoon, and several of his men are awarded the French Croix de Guerre. They are the first of 1,633 Marines to be awarded the French medal.

9 May 1918 – French units relieve the 2d Division and it moves to a new training area at Bar-le-Duc. An ill Brigadier General Doyen returns to the United States and Brigadier General J. G. Harbord, USA, takes command of the 4th Marine Brigade.

18 May 1918 – 2d Division moves to ready positions near Paris because Germans have made headway against the French at Amiens and against the British at Lys.

27 May 1918 – Germans launch a surprise attack at Chemin des Dames near Reims, roll back the French troops, and drive unchecked to Chateau-Thierry on the Marne River east of Paris.

30 May 1918 – 2d Division begins moving up to check the Germans. The 9th Infantry and the 5th Marines, the lead elements, are initially spread across the entire rear of the retiring XXI French Corps. As the 6th Marines and the 23d Infantry arrive, they are fed into position and the thinly held line becomes 11 miles long. The orders are: “No retirement will be thought of on any pretext whatsoever.” By 4 June, most French units have withdrawn through the lines and the Marines and soldiers are holding the front. Their frontage has been shortened to 9,000 yards by fresh French units, which fell in on their flanks. While the French were retiring through the Marines’ lines, Captain Lloyd W. Williams, who was killed in the subsequent battle, snorted, “Retreat hell, we just got there!” His famous comment was directed at a French officer who urged the Marines to retreat. When the Germans approached the Marines’ lines, Marine rifle fire began killing them at 800 yards. German officers, who did not teach their men to shoot at individual targets, first thought they had encountered a panicky unit. But as their casualties mounted, they became convinced they were facing a unit armed with nothing but machine guns. Their advance stalled and never regained its momentum. Their drive on Paris was stopped.

6 June 1918 – 4th Marine Brigade begins reducing the positions of two German divisions in the Bois de Belleau (Belleau Wood) directly to the front of the defense line they had been holding. This 20-day action was one of the most intense of the war. The brigade suffered 55 percent casualties. It established American troops, which had not been trusted by their European allies, as the best troops of the war. It also added legends to the Corps. It was at Belleau Wood, for example, that legendary Gunnery Sergeant Dan Daly reputedly leaped from a trench bellowing to his platoon: “Come on, you sons of bitches!
Do you want to live forever?


30 June 1918 – 6th French Army issues an order officially redesignating the Bois de Belleau as the Bois de la Brigade de Marine, and the entire brigade is cited by the French Army.

4 July 1918 – The U.S. 26th Division relieved the 2d Division.

17 July 1918 – 2d Division moves into position to participate in a XX French Corps attack on the German’s Marne salient. The division’s attack is along the Soissons-Chateau-Thierry highway. Brigadier General Harbord, USA, has taken command of the division and the 4th Marine Brigade is being commanded by Colonel Harry Lee, USMC.

18 July 1918 – 2d Division, along with the U.S. 1st Division and the 1st Moroccan Division, attack along the Soissons-Chateau-Thierry Highway. In a bitter two-day battle, they break the German grip on the Marne salient and force the Germans to begin the retreat, which lasts until the end of the war. Again, Marines are in the forefront of the fighting. Their casualties are again high and more legends are pounded out. As the attack commences, a Marine officer is told he will not have enough machine gun support because machine gun units have been unable to make their way forward over clogged roads. “Very well,” he said “We will use the Boche (German) machine guns.”

19 July 1918 – 4th Marine Brigade and the rest of the 2d Division is withdrawn from the fighting. It reassembles near Paris and moves to Nancy, where American divisions are being assembled and organized into an American army.

26 July 1918 – Brigadier General John A. Lejeune takes command of the 4th Marine Brigade.

29 July 1918 – Lejeune is promoted to major general and assumes command of the 2d Division. Newly promoted Brigadier General Wendell C. Neville, who commanded the 5th Marines at Belleau Wood, takes command of the 4th Marine Brigade.

4 August 1918 – 2d Division takes over a quiet defensive sector at Pont-a-Mousson. The Marines spend their time training replacements and have only one action, an 8 August brush with a German party that apparently wandered into their lines.

12 August 1918 – 2d Division is ordered out of the defensive sector and is replaced by the 82d American Division. It assembles for the San Mihiel Offensive at Colombey-les-Belles.

12 September 1918 – 2d Division attacks in the San Mihiel sector as part of I Corps of the new American army. The force inflicts heavy casualties and drives the enemy out of the sector in a three-day fight.

15 September 1918 – The U.S. 78th Division relieves the 2d Division.

26 September 1918 – 2d Division and the incomplete U.S. 36th Division are attached to the 4th French Army for an attack on Blanc Mont west of the Argonne Forest. Germans are expected to resist bitterly because Argonne Forest and Blanc Mont screen their railroads. Loss of the area will imperil their entire army. Major General Lejeune learns that the French commander intends to break up the American units and use them as shock troops to lead the way for the French troops. He successfully resists this plan.

3 October 1918 – 4th Marine Brigade leads the Blanc Mont attack. Together with the rest of the division, it secures the enemy positions in a week of fierce fighting. For this action, both the 5th and 6th Marine regiments are cited by the French army for the third time and thus earn the right to wear the fourragere as part of their uniforms.

21 October 1918 – 4th Marine Brigade responds to a French command and moves to Leffincourt to relieve a French division. American headquarters gets this order countermanded and orders the entire 2d Division back under American control.

25 October 1918 – 2d Division reports for duty with the American First Army.

1 November 1918 – 2d Division attacks German positions in the Argonne Forest as part of the V Corps of the American First Army. As the war ends, Marines have broken through the German lines and are pursuing the fleeing enemy.

11 November 1918 – The Armistice, ending hostilities, is signed.

July 1919 – After serving in the occupation army, 4th Marine Brigade returns to the United States. It parades with the rest of the 2d Division in New York and is reviewed by President Woodrow Wilson in Washington, D.C. It then moves to Quantico, Virginia, where it is disbanded.

1st Battalion, 5th Marines, on the way to a rest area after 16 days on the line—18 June 1918.
Book Review

New Words for an Old Tune
by Charles D. Melson
Chief Historian


Back when I first arrived in Quantico, Virginia, some 40 years ago, the discussion at the time in the Marine Corps schools was about “the guerrilla and how to fight him.” The book to be read was Bernard Fall’s Street Without Joy, and interaction was with those Marines with firsthand experience in Vietnam. The topic of insurgencies had overtaken the experiences of amphibious warfare in the Pacific and limited war in Korea. The then-ongoing war in Vietnam did not necessarily provide the model for success in insurgencies because of the varied and complex nature of the conflict. Vietnam was really another limited war that contained an insurgency component but was still being fought in the air, land, and sea throughout Southeast Asia. What small wars lessons that were learned by Americans were dissipated in the continuing Cold War environment that focused on possible major conflicts adjacent to the Communist Bloc countries. The maneuver warfare debate that took place later never focused on dealing with insurgencies and civil wars. Even the example of Great Britain in its series of brushfire wars was hard to replicate as most were conflicts fought at the end of empire under severe budget constraints. The challenge of small wars remained to be dealt with in other forms and in situations which we face today. Despite this, there is a long record and tradition of small wars to draw upon.

The Global War on Terrorism has provided this occasion in Iraq and Afghanistan. Once again, Quantico has played its part in identifying the problem and possible solutions for the Marines and other services. Marine Corps Warfighting Publication No. 3-33.5 (U.S. Army Field Manual No. 3-24) Counterinsurgency Field Manual does just that. This publication is an interesting mix of doctrine, experience, and prescription (I recommend the University of Chicago Press edition for the added forewords and introduction). It does include some references to specific examples of previous experience and an annotated bibliography of the classic and contemporary publications of counterinsurgency. Though well written by good authors, it is still a doctrinal publication.

Recently a new book has appeared that will provide a needed supplement to this institutional approach. Editor and contributors Daniel Marston and Carter Malkasian have provided an anthology of previous counterinsurgencies to give width and depth to the reader’s understanding of common and varied conflicts. Starting with the essays, Dr. Malkasian, a Center for Naval Analysis researcher, provides a needed overview of the campaign in Iraq from 2003 through 2007. Dr. Marston, research fellow at the Australian National University, considers the campaign in Afghanistan during the same period. With these as the anchor, 11 other chapters provide case studies of insurgencies from 1898 to the present. The authors are all experts in their areas of study, and all the contributions are well written and fully documented. The common thread is the variety of conflicts, rather than a central thesis. Though variety is the theme of all insurgencies, they derive from unique local circumstances. Two accounts I missed were those about the British in Mesopotamia in the 1920s and the Soviet Union in Afghanistan in the 1970s.

In this book you have Charles Townsend writing about Ireland, Anthony Joes dealing with the Philippines, Bruce Gudmundsson examining Nicaragua, Douglas Porch with the French in North Africa, Richard Stubbs discussing Malaya, John Nagl focusing on the American war in Vietnam, and my favorite, Richard Wood and the conflict in Rhodesia. With quality scholars such as these, the contents of this anthology are first rate for present-day requirements with both the academic and military communities. The book highlights the fact that some of the counterinsurgencies were successes and others were failures. The common focus among these stories is that these struggles were among people rather than about territory or ideologies. An interesting example of this is the ethnic maps provided for Iraq and Afghanistan. This supports Bernard Fall’s contention that the mapping of populations constitutes the key terrain of insurgencies.

While it is too early to consider Counterinsurgency Field Manual or Counterinsurgency in Modern Warfare as classics like the Small Wars Manual, both make basic companions for the Global War on Terrorism. For historians looking backward or analysts looking at current events and to the future, they are necessary read-
Fortitudine, Vol. 33, No. 4, 2008  

ing and well worth the price. Both the Council on Foreign Relations journalist Max Boot and the Military History Institute scholar Conrad Crane concluded that this anthology has both quality contributions by experts and provocative essays.

Of additional note on the subject of counterinsurgency, the Marine Corps University Press this fall is publishing *U.S. Marines and Irregular Warfare, 1898–2007: Anthology and Selected Bibliography*, compiled by Colonel Stephen S. Evans, a field historian with the History Division. For more information, see <http://www.mcu.usmcmil/mcupress/coin.htm>.

### Lieutenant Colonel Harold W. Bauer Inducted into the U.S. Naval Aviation Hall of Honor

*By CWO-3 Timothy S. McWilliams*

On 8 May 2008, Lieutenant Colonel Harold W. Bauer was inducted into the U.S. Naval Aviation Hall of Honor at Pensacola, Florida. He is remembered for his heroic combat action in the skies over Guadalcanal in 1942. As a member of the U.S. Naval Aviation Hall of Honor, Bauer joins an elite group of 70 other legendary naval aviators known for extraordinary achievements in naval aviation.

Born in Woodruff, Kansas, on 20 November 1908, Bauer grew up in North Platte, Nebraska, before entering the U.S. Naval Academy in 1926. As a midshipman, Bauer excelled in football, basketball, and lacrosse. He earned the nickname “Indian Joe” for his dark complexion and square jaw, a name that would remain with him from then on. After earning his commission in 1930, “Joe” Bauer attended the Officers Basic School at Quantico, Virginia, and then served as a company officer with the 1st Battalion, 6th Marines. He returned to the Naval Academy in 1932 as a marksmanship instructor, assistant basketball coach, and lacrosse coach. During this assignment, Bauer met Harriette Hemman, whom he married on 1 December 1932. Bauer transferred to the San Diego Naval Station, where he served as the assistant range officer and then became the executive officer of the Marine detachment aboard the heavy cruiser USS *San Francisco* (CA 38).

In 1935, First Lieutenant Bauer attended flight training at the Naval Air Station at Pensacola, Florida, and earned his wings on 24 February 1936. As a pilot, Bauer served with Marine Scouting Squadron Seven and Marine Scouting Squadron One, and then served with both Marine Fighting Squadrons One and Two (VMF-1 and VMF-2). As a new captain in 1941, Bauer was the executive officer of Marine Fighting Squadron 221 (VMF-221) at the Naval Air Station San Diego when the Japanese bombed Pearl Harbor. The next day, 8 December 1941, the squadron departed for Hawaii aboard the USS *Saratoga* (CV 3). Originally slated to reinforce the garrison on Wake Island, the squadron diverted to Midway, where Bauer arrived on Christmas day 1941. After just more than a month at Midway, Bauer was promoted to major and took
command of VMF-212, the "Hell Hounds," at the Marine Air Station, Ewa, Hawai'i. Soon thereafter, the squadron deployed to the South Pacific air facility at Noumea, New Caledonia. Major Bauer then led a detachment forward to the Island of Efate in the New Hebrides, where he supervised the construction of a new airfield at Port Villa while conducting reconnaissance for additional airfields in the South Pacific to defend U.S. logistical lines to Australia.

As the VMF-212 commander, Bauer earned the nickname "the Coach" for his inspirational leadership style, aggressive air combat philosophy, and the fact that he was 10 years senior to the squadron's other pilots. An accomplished aviator by this time, Bauer frequently gave pep talks to his younger pilots to boost their morale, encouraging them to use innovative flying practices against what he perceived as the Japanese pilot's mechanical and unimaginative tactics. Bauer encouraged his pilots to engage the Japanese Mitsubishi A6M Zeros in dogfights and trained his pilots in tactics that included fighting in pairs and making head-on attacks. Bauer believed that, by turning the better-protected Grumman F4F Wildcats head on into the faster and more maneuverable yet less armored Zero, the American pilots would win. This training succeeded in not only making his pilots more proficient, but instilling confidence. Earning a reputation for his tactical skill, senior leaders valued Bauer's views and insight, and this reputation combined with his success at Efate earned him promotion to lieutenant colonel only three months after becoming major.

It was Bauer's skill and heroics in the skies over Guadalcanal that sealed his legacy. When Marines of the First Marine Division under Major General A. A. Vandegrift captured the unfinished Japanese airfield at Lunga Point on Guadalcanal in August 1942, the Japanese responded with a determined effort to reclaim their possession. Located in the Solomons Islands 1,200 miles from Australia, Guadalcanal was a vital stepping-stone in the Japanese march across the Pacific. The island was essential to the U.S. effort not only to thwart the Japanese advance, but also to launch the island-hopping campaign toward Japan. Using equipment left by fleeing Japanese workers, Vandegrift's engineers worked day and night to complete the airfield for U.S. use.

Critical to the defense of Guadalcanal in 1942 were a few U.S. Army, Navy, and Marine pilots, affectionately calling themselves the "Cactus Air Force" after the Navy code name for the island. Battered and undersupplied, these pilots tenaciously defended the island against a superior Japanese air force that outnumbered the Cactus Air Force two to one. During the determined Japanese effort to recapture the island, Lieutenant Colonel Bauer augmented the Cactus Air Force with experienced pilots. Leading by example, Bauer personally volunteered for missions and distinguished himself as both an ace and an effective combat commander. On 28 September 1942, Bauer engaged and destroyed a Japanese Betty bomber, and on 3 October, he shot down four Zeros, badly damaging a fifth. For these actions, Major General Roy S. Geiger, Commanding General of the 1st Marine Air Wing, presented Bauer with a captured Japanese battle flag, which he humbly accepted, crediting his men, and then donated the flag to Marine Air Group's trophy room.

Despite the tenacious efforts of the Cactus pilots and their crews, by 16 October 1942, weeks of continuous aerial combat had taken its toll and the Cactus Air Force was nearly out of fuel and operational aircraft. With a significant Japanese reinforcement force quickly approaching, the situation on Guadalcanal looked grim. In response to Major General Vandegrift's call, Lieutenant Colonel Bauer led the flight of 26 available aircraft 600 miles to Guadalcanal from Espiritu Santo on 16 October. The flight had no sooner arrived when Bauer saw a squadron of eight Japanese Val dive bombers attack the USS McFarland (DD 237) as it delivered aviation fuel and ammunition to the island. With his own fuel supply nearly exhausted, Bauer aborted his landing and immediately attacked the enemy squadron, destroying four planes before his critical fuel shortage forced him to land. For these actions, Bauer was awarded the Medal of Honor.

A week later, on 23 October, Bauer became the commander of Guadalcanal's air defense forces. On 14 November during the Japanese's last major effort to recapture the island, Bauer joined Captain Joseph J. Foss and Second Lieutenant Thomas W. Furlow in an attack on Japanese transport ships approaching the island. As they completed their strafing runs, a pair of Zeros ambushed them. Bauer made his signature attack, turning directly into the Zeros, and sent one of the enemy aircraft flaming into the sea while Foss and Furlow chased away the remaining enemy aircraft. When they returned to the site of the engagement, they found Bauer floating in the water wearing his "Mae West" life vest and waving at his comrades after being forced to ditch his aircraft in the water. Foss attempted to give his life raft to Bauer, but after failing to do so, he raced back to Henderson Field and retuned with a Grumman J2F Duck seaplane. Unfortunately, darkness forced the rescuers to abort their effort. When Foss returned the following morning, there was no sign of Bauer, who was declared missing in action. In a letter to Bauer's family, Foss wrote:

To me, Marine Corps Aviation's greatest loss in this war was that of your son Joe. He really had a way all his own of getting a tough job done efficiently and speedily, and was admired by all, from the lowest Private to the highest General.

Following the war, Bauer was declared killed in action. For his skill and heroism over the skies of Guadalcanal in 1942, Bauer's wife Harriette and son Bill received his posthumous Medal of Honor. Military officials dedicated the airfield that Bauer helped establish at Port Villa to him. Known today as Bauerfield, the government of Vanuatu, formerly New Hebrides, continues to honor his memory and the contributions he and his fellow American aviators made in protecting the island from the Japanese during World War II. In 1957, the United States Navy commissioned the destroyer escort USS Bauer (DE 1025) in his honor.
In Memoriam

Passing of Major General Looney, Brigadier General Leach, Brigadier General Henderson, and Private First Class Lucas

by Robert V. Aquilina
Assistant Head, Reference Branch

Major General Edmund P. Looney Jr., a distinguished combat veteran of the Vietnam War, died 28 February 2007 in Tampa, Florida, at the age of 77. The Brooklyn, New York, native graduated from St. John’s University’s School of Commerce in 1956 and was commissioned a Marine second lieutenant. He later earned a master’s degree in Human Resource Management from Pepperdine University. During the Vietnam War, he served two combat tours of duty. From March 1965 to April 1966, he served as an advisor to a Vietnamese infantry battalion. He was a logistics program officer at Headquarters Marine Corps from April 1966 to July 1970, and from July 1970 to July 1971, he served in a variety of assignments with the 1st Marine Division in Vietnam. From 1972 to 1975, he served as operations officer on the staff of the commander, Strike Force at Naples, Italy, and was the new ships construction officer at Headquarters Marine Corps from January 1975 to August 1977. Various assignments followed with the 1st Marine Division, and from June 1980 to June 1981, he served as commanding officer of the 31st Marine Amphibious Unit in the Western Pacific and Indian Ocean. He was promoted to major in August 1966, to lieutenant colonel in April 1973, and to colonel in November 1978. He was assigned as plans officer, G-3, 1 Marine Amphibious Force at Camp Pendleton, and while serving in this capacity was selected for promotion to brigadier general. He was advanced to that grade on 2 July 1982 and assumed command of the Marine Corps Logistics Base, Barstow, California, in July 1982. In June 1984, he was assigned duty as the commanding general, 6th Marine Amphibious Brigade, Fleet Marine Force, Atlantic at Camp Lejeune. He was selected for promotion to major general in December 1986 and promoted to that grade on 1 September 1987. From September 1987 until 3 January 1989, he was assigned duty as the assistant deputy chief of staff for manpower and reserve affairs, and from 17 July to 28 September 1989 was assigned additional duty as deputy naval inspector general for Marine Corps Matters/Inspector General of the Marine Corps. General Looney retired from the Marine Corps on 1 September 1990.

Brigadier General George H. Leach died 2 June 2008 in Annandale, Virginia, at the age of 75. The Philadelphia, Pennsylvania, native was commissioned a Marine second lieutenant in June 1955 upon graduation from Columbia University, where he earned a BS degree in industrial engineering. Upon completion of The Basic School at Quantico, Virginia, he reported for flight training at the Naval Air Station, Pensacola, Florida. He was designated a naval aviator in March 1957 and reported for duty with Marine Attack Squadron 331, Marine Corps Air Station, Miami. He subsequently joined the nucleus for Marine Attack Squadron 331, which was then in a process of transition to A-4B Skyhawk. He earned an MS degree in electrical engineering in June 1964 at the Naval Postgraduate School, Monterey, California. In January 1967, he underwent A-4 refresher training and joined Marine Attack Squadron 223 in Chu Lai, Vietnam. He completed this overseas tour as 1st Marine Aircraft Wing flight standardization officer at Da Nang Air Base, Vietnam. Duty assignments followed at Headquarters Marine Corps and later at Marine

MajGen Edmund P. Looney Jr.
Department of Defense Photo

BGen George H. Leach
Department of Defense Photo
Brigadier General Melvin D. Henderson, a distinguished combat veteran of World War II and the Vietnam War, died 9 June 2008 in Shoreline, Washington, at the age of 90. The McKeesport, Pennsylvania, native graduated in 1939 from Carnegie Institute of Technology. He held an Army engineer reserve commission prior to accepting an appointment as a Marine second lieutenant on 24 July 1940. During World War II, he took part in the Roi-Namur, Saipan, Tinian, and Iwo Jima campaigns, earning a Bronze Star Medal with Combat “V” as executive officer, 4th Engineer Battalion, at Iwo Jima. Following the war, he served in duty stations at Quantico and Camp Pendleton and during 1952 was assistant G-4 with the Marine Corps Provisional Exercise Unit at Yucca Flat, Nevada, in the first atomic ground detonation to involve troops. In June 1952, he was assigned as commanding officer of the 3d Battalion, 3d Marines. From 1954 to 1957, he headed various branches in the G-4 Division, Headquarters Marine Corps. Joining the 2d Marine Division at Camp Lejeune, North Carolina, he served first as division G-4, then as commanding officer, 6th Marines. In 1961, he was assigned as military assistant to the assistant secretary of defense for manpower. Following his promotion to brigadier general in January 1964, he served as assistant chief of staff, G-4, Headquarters Marine Corps, until May 1965, earning the Navy Commendation Medal for his service. In June 1965, he was ordered to duty on Okinawa as commanding general, 3d Marine Division (Rear), and shortly thereafter deployed with the unit to Vietnam as assistant division commander, 3d Marine Division. He returned to Okinawa in December 1965 as deputy commander, Fleet Marine Force, Pacific/I Marine Amphibious Corps (Forward). General Henderson retired from active duty on 1 April 1966.

Jacklyn H. Lucas, the youngest Marine ever to receive the Medal of Honor, died 5 June 2008 in Hattiesburg, Mississippi, at the age of 80. The Plymouth, North Carolina, native enlisted in the Marine Corps Reserve with his mother’s consent on 6 August 1942 but gave his age as 17. He reached his 17th birthday while at sea, en route to Iwo Jima as a member of Headquarters Company, 5th Marine Division. On 20 February 1945, the day following the landing at Iwo Jima, he threw his body over a Japanese hand grenade that was thrown into his foxhole and saved his fellow Marines from serious injury or death. Severely wounded, he was evacuated and treated at several hospitals in the United States. He was discharged as a private first class from the Marine Corps Reserve on 18 September 1945 due to disability resulting from his wounds. In addition to the Medal of Honor, Private First Class Lucas was awarded the Purple Heart, Presidential Unit Citation, Asiatic-Pacific Campaign Medal with one Bronze Star, American Campaign Medal, and the World War II Victory Medal. □1775□
Dr. Charles P. Neimeyer (right) presented a copy of Marine Corps University Press’ first book to MajGen Donald R. Gardner (Ret) at the press launch event on 8 August 2008. Gen Gardner, president of Marine Corps University since 2004, has been the driving force behind the development of the press.

MajGen (Sel) Melvin G. Spiese (left), commanding general of Training and Education Command, had his copy of the Marine Corps University Press’ first book signed by its author, LtCol David A. Benhoff. Benhoff, a reservist with the History Division, deployed to Iraq in 2005 as a field historian with II Marine Expeditionary Force. During his tour, he traveled throughout the Multi-National Forces-West area of operations in al-Anbar Province. His book Among the People: U.S. Marines in Iraq documents what he recorded during his deployment.

Dr. Charles P. Neimeyer (right) made a presentation at the MCU Press launch event to BGen (Ret) Thomas V. Draude, president and CEO of Marine Corps University Foundation. Through the generous donations of Ms. Alexis F. Thomas and Ms. Kim T. Adamson, the Marine Corps University Foundation is providing supplemental funding to MCU Press to support the establishment of the Marine Corps University Journal, a scholarly journal that will start publication in mid-2009.

On 8 August 2008, Marine Corps University formally launched the Marine Corps University Press with a ceremony at the Gray Research Center, Quantico, Virginia. The launch event was timed to commemorate the 19th anniversary of the university.

MCU Press developed from the vision of the faculty and administration of the university and its president, Major General Donald R. Gardner (Ret). Its works will advance knowledge of international security, strategy, and warfighting concepts. In addition to producing scholarly books—with three published in 2008—the press will launch a peer-reviewed academic journal in 2009.

MCU Press functions as a component of the History Division. Dr. Charles P. Neimeyer, director of the History Division, serves as publisher of the press. Mr. Kenneth H. Williams is senior editor for both the History Division and MCU Press. Colonel Patricia D. Saint and Lieutenant Colonel Jeffrey R. Riley, reservists with the History Division, have played integral roles in the conception and standing up of the press.


Dr. Charles P. Neimeyer (right) and Mr. Kenneth H. Williams (left) presented a copy of the Marine Corps University Press’ first book to MajGen Donald R. Gardner (Ret) at the press launch event on 8 August 2008. Gen Gardner, president of Marine Corps University since 2004, has been the driving force behind the development of the press.
### Feedback to the Editor

History Division is soliciting input from the readers of *Fortitudine*, regarding the current format, and future articles—feature topics, types of articles (history making news versus history stories)—and value to your understanding of Marine Corps history.

If you have comments about *Fortitudine* or about the number of magazines you receive, please contact me.

*gregory.macheak@usmc.mil*

Managing Editor, *Fortitudine*

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