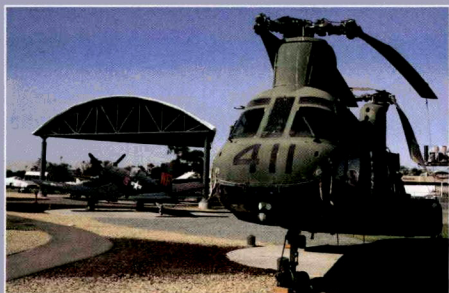


Taking Flight on Terra Firma

Keene, R R

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This Boeing CH-46D Sea Knight from Marine Medium Helicopter Squadron (HMM) 165 evacuated U.S. Ambassador Graham Martin from the U.S. Embassy Saigon at 0500 on April 30, 1975, marking the official end of American involvement in the Vietnam War.



The Rockwell (North American) OV-10 Bronco came later in the Vietnam War, flying its first combat mission from Da Nang on July 6, 1968. Capable of various missions, the Corps used it primarily as a forward air controller platform. On Jan. 18, 1992, LtCol Clifford M. Acree and CWO-4 Guy L. Hunter and their OV-10 were shot down over southern Kuwait during Desert Storm. The Corps retired the Bronco after Desert Storm.



The McDonnell Douglas RF-4B Phantom II was assigned to Marine composite reconnaissance squadrons and flew photo reconnaissance missions from Da Nang during the Vietnam War. This particular aircraft flew its last mission on April 25, 1990, and had more than 5,364 airframe hours.



In its day, the Sikorsky CH-53A Sea Stallion was the fastest helicopter in the Free World, had the heaviest lift capacity and had the impressive ability to complete loops and barrel rolls. It flew extensively during the Vietnam War.



This TBM Avenger, a WW II-era torpedo bomber manufactured by General Motors, was restored at the museum. It carries the markings of Marine Torpedo Bomber Squadron 132, which flew off USS Cape Gloucester (CVE-109), a "jeep" carrier operating in the Pacific.



The Corsair first flew on May 29, 1940, and was in production longer than any other WW II fighter. On Sept. 10, 1952, Capt Jesse G. Folmar, Marine Fighter Squadron (VMF) 312, shot down a Russian-made MiG-15 jet while flying the Corsair. The Chance Vought F4U-5N Corsair above was not available for WW II, but was assigned to night-fighting units that accounted for 11 enemy aircraft during the Korean War.

Taking Flight on Terra Firma

Transporting Visitors Through Corps' Warbird History At Marine Corps Aviation Museum, San Diego

Story and photos by R. R. Keene

Marine air, there is nothing quite like it in the world. It is the eagle on the globe and anchor of the Corps.

Developed and flown by Marines whose mission in life is to support fellow Marines on the ground, Marine air is another example of why your Corps is great. Although other military branches do a great job, thank you, Marines prefer to keep it in the family and call on their own for precise close air support and chopper missions directed into landing zones secured and locked down by leatherneck infantry.

It is an old, but sometimes overlooked story. It was the Marines who pioneered the aviation concepts of dive-bombing, close air support, vertical envelopment and assault.

In bandit-infested pestholes of Haiti, the Dominican Republic and Nicaragua, Marines with rudimentary aircraft began to experiment with air-ground tactics that turned air support of fellow Marines to Corps doctrine. Pioneering Marine aviators such as Alfred Cunningham noted in 1920 that "the only excuse for aviation in any service is its usefulness in assisting the troops on the ground to successfully carry out their missions." His words have guided the Corps' aviation roles and missions ever since.

By World War II, Marine aviation came into its own. Marines over the Pacific, who could take off from land or aircraft carriers, specialized in close air support. Flying leathernecks also were feared as aerial dog-fighter pilots and were credited with shooting down 2,355 Japanese aircraft while losing 573 of their own aircraft. There were 122 who became aces and 11 Marine aviators who earned Medals of Honor.

Korea saw the use of helicopters in combat for the first time, churning into outposts, providing resupply, ferrying the wounded and inserting combat troops into rugged battle areas that could not easily be reached by land.



Look for this sign on Miramar Road next to MCAS Miramar. Follow it and you will plunge into Marine Corps aviation history, a learning lesson the whole family can enjoy and remember.

In Vietnam, Marines constructed and launched combat attack jet missions off an expeditionary matting airfield in Chu Lai, which was, in essence, an aircraft carrier deck in a sea of sand. They routinely flew treetop close air support missions at less than 200 feet. Marine Corps helicopters braved hailstorms of mortar, rocket and small-arms fire to drop supplies or lift out wounded Americans, Vietnamese and Koreans.

In the latter part of the 20th century, Marines were the only American forces to use the vertical and/or short take-off and landing attack jet, the AV-8 Harrier, which brought the aircraft from pads near the "grunts" they supported. In 2009, the Corps deployed the V-22 Osprey to combat missions over Afghanistan. A unique, versatile and multimission aircraft, the Osprey lifts off like a helicopter and flies forward like a fixed-wing cargo aircraft. It is fast, can be refueled in midair, and because it does not need a runway, can land almost anywhere.

"The story of Marine aviation is not well-known, but it is an incredible history," said Major General Bobby G. Butcher, USMC (Ret), Chairman, Board of Directors, Flying Leatherneck Historical Foundation. MajGen Butcher has won naval aviator wings since shortly after being commissioned in 1959. He piloted the A-4 Skyhawk attack jet for 31 years. During two tours in Vietnam, he flew out of Chu Lai and logged 300 combat missions, earning the Distinguished Flying Cross, Bronze Star with combat "V" and 15 Air Medals. He said that when it comes to aviation, "Marines have been the innovators of all the services."

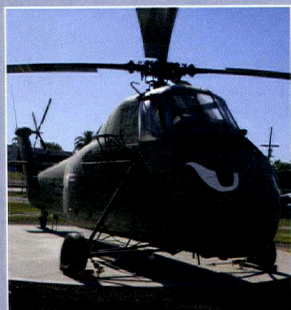
And the Flying Leatherneck Aviation Museum, on Miramar Road, adjacent to Marine Corps Air Station Miramar, Calif., is the place to see and learn about Marine aviators and their history-making aircraft. The museum is open Tuesday through Sunday, 9 a.m. to 3:30 p.m., and at other times by special arrangement. Check out their Web site: www.flyingleathernecks.org.



Marine Fighter/Attack Training Squadron 101 calls MCAS Miramar home and retired this McDonnell Douglas multirole F/A-18 Hornet, which came to the squadron in 1988 after being used in training Marine pilots how to fly tactical missions against aggressor aircraft. The aggressor aircraft, in the background, is the very maneuverable Northrop Grumman F-5N Tiger II tactical fighter.



Built for the Navy and Marine Corps as a carrier-based fighter-interceptor, this delta wing American Douglas F-4D1 Skyraider, often called the "Ford," was the first carrier-launched aircraft to hold the world's absolute speed record. This model is painted with VMF-115 markings. The squadron flew the aircraft starting in 1957.



The "Evil Eyes" on the nose of this HMM-163 Sikorsky UH-34D Seahorse are similar to the eyes painted on sampans to ward off evil spirits. The UH-34D flew for the Corps in Vietnam until Aug. 18, 1969, when it was retired at Phu Bai, Vietnam.



The Paisecki HUP-2 utility Retriever helicopter was originally designed for shipboard use. The Marine Corps acquired 13 HUPs. This helicopter served at MCAS El Toro, Calif., from 1962 to 1972.



After borrowing 38 single-engine AH-1G Cobras from the Army during the Vietnam War, the USMC ordered attack helicopters of its own. The combat experience led to the development of the Bell AH-1J Sea Cobra above.



The Skyhawk first flew in 1954 and was in production for more than 26 years. It was conceived to meet an early 1950s Navy requirement for a carrier-based attack aircraft. This McDonnell Douglas A-4C Skyhawk belonged to the Marine Attack Squadron (VMA) 223 "Bulldogs" and flew off the matted runway at Chu Lai, RVN, in 1965.



The Grumman A-6 Intruder first flew on April 16, 1960. Marine Attack Squadron (All Weather) 242, the "Bats," was the first Marine squadron to receive the A-6, and the aircraft pictured here is painted with the VMA(AW)-242 tail code, "DT." The Intruder, an all-weather medium attack jet, was employed in several roles: attack, electronic warfare and in-flight refueling.



The North American FJ-3 Fury was a swept wing, carrier-capable version of the Air Force F-86 Sabre jet. The Corps started getting the FJ-3s circa 1957, and the "Death Rattlers" of VMA-323 deployed them in armed patrols over Quemoy and Matsu in support of Chinese Nationalist Forces.



The Grumman F9F-8P Cougar was the swept-wing version of the Grumman F9F Panther series and was produced in the attack, fighter, photo-reconnaissance and trainer versions. The aircraft on display was delivered to the Marines on Aug. 21, 1956, and assigned to Marine Composite Reconnaissance Squadron (VMCJ) 3.



The Grumman F9F-2 Panther jet served with distinction in the Korean War, downing two Yak-9s and five Mikoyan-Gurevich MIG-15s. It was the primary Navy and Marine jet fighter and ground-attack aircraft in the Korean War. Future astronaut John Glenn and Boston Red Sox All-Star Ted Williams flew the F9F as Marine Corps pilots. Panthers were withdrawn from front-line service in 1956, but remained in training roles and with Reserve units until 1958, some continuing to serve in small numbers into the 1960s.



The Douglas F3D-2 Sky Knight was an all-weather fighter for the Marine Corps and made its first flight on March 23, 1948. A total of 268 were delivered to the Navy and the Marine Corps. Throughout its long service life, the Sky Knight was modified for use as an electronic countermeasures aircraft, missile-firing platform, systems trainer and flying test platform for advanced avionics. Many F3D-2s were modified as electronic jammers to be used by VMCJs during Vietnam. These aircraft were redesignated as F3D-2Qs and later as EF-10Bs.



The Chance Vought F8U-1P (RF-8G) Crusader joined the fleet in September 1957. The F8U-1P was redesignated RF-8A in 1962. The first operational test came during the fall of 1962 when pictures confirmed Soviet-made Intermediate Range Ballistic missiles were in Cuba on Oct. 23, 1962. This RF-8G was redesignated as RF-8A in 1962.



The McDonnell Douglas AV-8B Harrier vertical and/or short take-off and landing attack jet started flying with VMA-513 in 1971. In 1987, the squadron received the AV-8B Harrier II. It has since flown combat missions over Saudi Arabia, Kuwait, Iraq and Afghanistan.

"This is the only museum in the world dedicated to preserving the incredible contributions made by Marine Corps aviators and their ground support personnel," said MajGen Butcher. It also is the only official Marine Corps aviation museum in the western United States.

MajGen Butcher pointed out that the historical foundation is a nonprofit 501 (c) (3) organization that is primarily operated by volunteers. "Although the Department of Defense recognizes the importance of preserving historic records and artifacts by each of the military services, the annual budget for these activities is necessarily austere.

"The Flying Leatherneck Historical Foundation meets its fundraising mission through solicitation of memberships, fund drives, special events and the operation of a museum gift shop. Its functional efforts are directed through working committees devoted to aircraft restoration, historical research, archival preservation, exhibits, special events, gift shop, docent-conducted tours and fundraising."

The primary goal right now is to raise funds to erect a \$40 million exhibit hall to house the museum's invaluable collections. "Membership fees and gifts from donors will help us meet our goal," said MajGen Butcher.

They have a ways to go and are currently operating out of temporary buildings, but as Marines and aviators, they are "candor" and optimistic by nature.

One of the museum's volunteers is Sergeant Major Mike Zacker, USMC (Ret), who also is a member (secretary) of the foundation's board of directors. A former UH-34D Seahorse and CH-53A Sea Stallion helicopter crew chief, he is a veteran of four tours in Indochina, including flying combat missions out of Phu Bai, Vietnam, minesweeping operations in North Vietnam's Hai Phong Harbor and evacuating American diplomats from Phnom Penh, Cambodia. He's very familiar with a large chunk of Marine aviation history when it comes to helicopters.

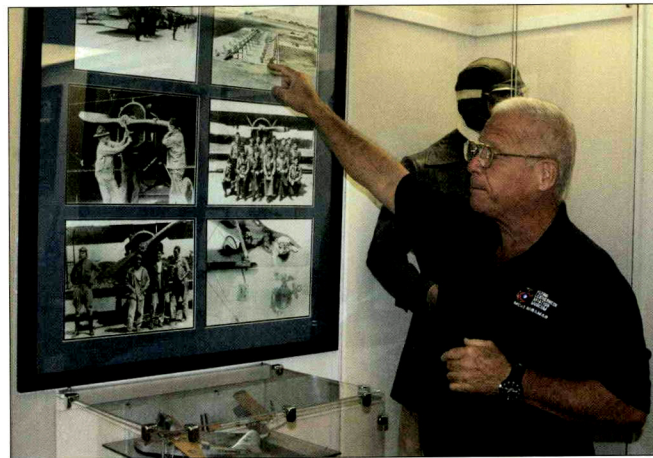
He's also the guy whom a good number of the museum's 30,000 annual visitors get to know as he takes them around the museum's outdoor area, which boasts an average of 25 vintage aircraft. Outside the Miramar Marine Corps Exchange, the museum showcases several famous transport aircraft of the Corps including the Douglas R4D-8 "Super Gooney Bird" or "Hummer" and the Fairchild R4Q Packet. Back at the museum there are indoor displays of memorabilia and artifacts dating to the earliest days of Marine Corps aviation.

"Many items are one of a kind," said SgtMaj Zacker, "and range from fine art



Above: When completed, the grounds, outdoor displays, parking area and a \$40 million museum building will make the Flying Leatherneck Aviation Museum the only museum in the world dedicated to the primary purpose of preserving the history of Marine Corps aviation. (Illustration courtesy of the Flying Leatherneck Aviation Museum)

Below: Retired SgtMaj Mike Zacker, a former Vietnam War helicopter crew chief, is a problem solver and has spent most of his spare time giving tours to museum visitors and helping develop the museum.



portraits to military clothing and weapons used during specific campaigns. One very unique aspect is the museum holds the only [West Coast] exhibit in the United States devoted to the history of the woman Marine, including original uniforms, history timeline and memorabilia."

The museum's "Walk of Memories" memorial brick program is popular with Marines and their families who see it as a way to commemorate a loved one, a special memory, or to say thank you. The

bricks are permanently displayed in the Memorial Park at the Flying Leatherneck Aviation Museum. The memorial bricks may be purchased at \$300 each and personalized to individual specifications.

Fundraising and all that other stuff aside, if you like looking at airplanes, and who doesn't, the Flying Leatherneck Aviation Museum is one of those places you need to see when visiting Southern California.